psychological applications and trends

2018

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Clara Pracana

Michael Wang

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- Prof. Clara Pracana, Full and Training Member of the Portuguese Association of Psychoanalysis and Psychoanalytic Psychotherapy, Portugal,

- Prof. Michael Wang, Emeritus Professor of Clinical Psychology, University of Leicester, United Kingdom

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BRIEF CONTENTS

FOREWORD

This book contains a compilation of papers presented at the International Psychological Applications Conference and Trends (InPACT) 2018, organized by the World Institute for Advanced Research and Science (W.I.A.R.S.).

Modern psychology offers a large range of scientific fields where it can be applied. The goal of understanding individuals and groups (mental functions and behavioral standpoints), from this academic and practical scientific discipline, aims ultimately to benefit society. The International Conference seeks to provide some answers and explore the several areas within the Psychology field, new developments in studies and proposals for future scientific projects. The goal is to offer a worldwide connection between psychologists, researchers and lecturers, from a wide range of academic fields, interested in exploring and giving their contribution in psychological issues. We take pride in having been able to connect and bring together academics, scholars, practitioners and others interested in a field that is fertile in new perspectives, ideas and knowledge.

We counted on an extensive variety of contributors and presenters, which can supplement the view of the human essence and behavior, showing the impact of their different personal, academic and cultural experiences. This is, certainly, one of the reasons there are nationalities and cultures represented, inspiring multi-disciplinary collaborative links, fomenting intellectual encounter and development.

InPACT 2018 received 386 submissions, from more than 35 different countries from all over the world, reviewed by a double-blind process. Submissions were prepared to take form of Oral Presentations, Posters, Virtual Presentations and Workshops. 126 submissions (overall, 32% acceptance rate) were accepted for presentation in the conference. The conference also includes a keynote presentation by Dr. Saima Löfgren (BSc(Hons), MSc, DClinPsy, Clinical Psychologist, Visiting Lecturer at the Universities of Nottingham and Leicester, United Kingdom); and two Special Talks, one by Prof. Dr. Michael Wang (Professor of Clinical Psychology, University of Leicester, United Kingdom), and the other by Prof. Dr. Pedro Oliveira (MSc on Anthropology and Child Development, PhD in Social Anthropology, Clinical Psychologist, Member of the Portuguese Order of Psychologists, Portugal). We would like to express our gratitude to all our invitees.

The Conference addresses different categories inside Applied Psychology area and papers fit broadly into one of the named themes and sub-themes. The conference program includes six main broad-ranging categories that cover diversified interest areas:

- **CLINICAL PSYCHOLOGY**: Emotions and related psychological processes; Assessment; Psychotherapy and counseling; Addictive behaviors; Eating disorders; Personality disorders; Quality of life and mental health; Communication within relationships; Services of mental health; and Psychopathology.

- **EDUCATIONAL PSYCHOLOGY**: Language and cognitive processes; School environment and childhood disorders; Parenting and parenting related processes; Learning and technology; Psychology in schools; Intelligence and creativity; Motivation in classroom; Perspectives on teaching; Assessment and evaluation; and Individual differences in learning.

- **SOCIAL PSYCHOLOGY**: Cross-cultural dimensions of mental disorders; Employment issues and training; Organizational psychology; Psychology in politics and international issues; Social factors in adolescence and its development; Social anxiety and self-esteem; Immigration and social policy; Self-efficacy and identity development; Parenting and social support; Addiction and stigmatization; and Psychological and social impact of virtual networks.

- **LEGAL PSYCHOLOGY**: Violence and trauma; Mass-media and aggression; Intra-familial violence; Juvenile delinquency; Aggressive behavior in childhood; Internet offending; Working with crime perpetrators; Forensic psychology; Violent risk assessment; and Law enforcement and stress.

- **COGNITIVE AND EXPERIMENTAL PSYCHOLOGY**: Perception, memory and attention; Decision making and problem-solving; Concept formation, reasoning and judgment; Language processing; Learning skills and education; Cognitive Neuroscience; Computer analogies and information processing (Artificial Intelligence and computer simulations); Social and cultural factors in the cognitive approach; Experimental methods, research and statistics; and Biopsychology.

- **PSYCHOANALYSIS AND PSYCHOANALYTICAL PSYCHOTHERAPY**: Psychoanalysis and psychology; The unconscious; The Oedipus complex; Psychoanalysis of children; Pathological mourning; Addictive personalities; Borderline organizations; Narcissistic personalities; Anxiety and phobias; Psychosis; Neuropsychoanalysis.

This book contains the results of the different researches conducted by authors who focused on what they are passionate about: to study and develop research in areas related to Psychology and its applications. It includes an extensive variety of contributors and presenters that are hereby sharing with us their different personal, academic and cultural experiences.

We would like to express thanks to all the authors and participants, the members of the academic scientific committee, and of course, to the organizing and administration team for making and putting this conference together.

Looking forward to continuing our collaboration in the future,

Respectfully,

Prof. Clara Pracana
Full and Training Member of the Portuguese Association of Psychoanalysis and Psychoanalytic Psychotherapy, Portugal
Conference and Program Co-Chair

Prof. Michael Wang
Emeritus Professor of Clinical Psychology, University of Leicester, United Kingdom
Conference and Program Co-Chair

Porto, Portugal, 5-7 May, 2018

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KEYNOTE LECTURE

HOW CAN PSYCHOLOGY BE USED TO PREVENT EXTREMIST VIOLENCE? MAKING THE CASE FOR CLINICAL PSYCHOLOGY IN ADDRESSING RADICALISATION IN THE UK GOVERNMENT'S COUNTER TERRORISM STRATEGY

Dr. Saima Löfgren

BSc(Hons), MSc, DClinPsy,
Clinical Psychologist, Visiting Lecturer at the Universities of Nottingham and Leicester (UK)

Abstract

The wave of Islamic State-linked terrorism experienced in the West over the past few years has rekindled debates surrounding mental illness and terrorist engagement. Questions such as 'how prevalent is mental illness among terrorists?' and 'what relationship does mental illness have with radicalisation?' are posed. However, in the absence of credible evidence in most cases, due to a lack of formal diagnosis or mental health intervention, psychological difficulties are often implied and assumed. As such, the strange and erratic behaviour in an individual's pathway to radicalisation is assumed to be linked to mental health issues.

This paper does not advocate that the role of clinical psychologists should be to confirm evidence that mental illness is a driver of radicalisation. Instead, within research and practitioner communities, psychologists can offer a more nuanced formulation of an individual's vulnerabilities and grievance structure, drawing together psychological and situational drivers.

The point of this paper is to highlight that unpicking radicalisation is no different to using a formulation to understand the underpinnings of a mental health difficulty. For example, just as depression is understood as the outcome of a complex array of interwoven experiences and factors, radicalisation can be viewed as the outcome of a myriad of push/pull factors. It follows, therefore, that the identification and presentation of radicalisation will differ across individuals and groups, just as it would for depression. This variability highlights the issues of establishing a psychological profile of terrorists and the application of risk assessment tools within radicalisation.

The addition of an overarching ideology, however, leads practitioners to presume the work lies outside of their expertise. The narrative of ideology is disseminated in the counter terrorism strategy of the UK Government, which conceptualises radicalisation as an issue of ideology. Associated interventions employ Islamic theologians as mentors, to engage in dialogue those at 'risk of radicalisation', in order to challenge the 'hardcore false interpretations of Islam', associated with extremist thinking. Thus focusing on the beliefs of the radicalised rather than the process through which the individual becomes radicalised.

The use of religious mentors raises a number of challenges, including the lack of valid and evaluated training and supervision, and the lack of empirical strength in the notion that religious ideology causes radicalisation. This is not to say that religious beliefs have no part within the radicalisation process, but rather it is too simple (and unfounded) to suggest that theoretical debate based on subjective re-interpretation by mentors, is an empirically supported intervention. The development of extremist thinking is usually far more complex and dynamic than one single factor can explain, be it mental illness, Islamist ideology, or socio-political grievances. It is widely accepted that the psychological impact of inequality and exclusion on the construction of identity, in the context of globalised communities, are the main factors leading individuals to join extremist networks.

An empirically grounded psychological formulation would allow us to look at the interplay of such factors, including marginalisation, discrimination and religious beliefs. Instead of seeking an intervention based only on ideology, and by moving away from profiles to formulation, the involvement of psychologists can help to develop a greater nuance and individuality in interventions to prevent and counter violent extremism. In talking about by work in this field, this paper draws on case studies to demonstrate the profession's relevance in counter-extremism and counterterrorism efforts.

Biography

Saima Löfgren is a Clinical Psychologist in Adult Mental Health with a long-standing special interest in refugees and asylum seekers. She has worked in NGO, government and private sector roles, developing innovative approaches to tackle problems in the delivery of mental healthcare to this client group.

She is a visiting lecturer at the Universities of Nottingham and Leicester where she teaches on Cultural Competency, Discourse Analysis and the Philosophy of Science. She contributes to the University of Leicester Criminology course, teaching on psychological approaches to de-radicalisation.

Saima currently works for the UK Government's counter terrorism strategy, Prevent, working individually with Islamist extremists and those at risk of radicalisation. She utilises a psychologically informed approach to explore radicalisation as a process, from the perspective of those radicalised. In this way she is contributing to a developing evidence base, using case studies to demonstrate a variety of push and pull factors. Her approach is in contrast to the emphasis on ideology within the UK Prevent strategy.

Saima has participated in a number of international conferences and events, speaking and presenting research to government, practitioner and civil society audiences around the world. These include the US Department for Homeland Security; the Federal Bureau of Investigation; the Royal Canadian Mounted Police; the Australian Federal Police and Attorney General's Department; the State Government of Victoria, Australia; and the Metropolitan Police in the UK.

SPECIAL TALKS

A CASE OF EMERGENCE AWAKE PARALYSIS

Prof. Dr. Michael Wang

Emeritus Professor of Clinical Psychology, University of Leicester (United Kingdom)

Abstract

The experience of *awake paralysis* is central to psychological trauma and subsequent emotional difficulties following accidental awareness during general anaesthesia (AAGA).[1,2] Patients may believe they are dying or have actually died during their awareness experience. Others imagine they will be paralysed for the rest of their life. These misapprehensions lie at the heart of AAGA Post Traumatic Stress Disorder, and their assessment and understanding is key to successful treatment.[3]

The author presents a case of emergence paralysis in a psychologically resilient former rugby player with a history of 21 previous unremarkable general anaesthetics (mainly for sports injuries and their treatment). The patient describes how an absence of the sensation of chest movement caused him to think he was not breathing and that he would die imminently from asphyxia (despite on-going mechanical ventilation, of which he was unaware). He suffered severe insomnia with six to eight traumatic nightmares (reliving the emergence paralysis experience and imminent death) and awakenings per night during the following four months. This in turn caused daytime irritability, anxiety and low mood. Cognitive behavioural treatment involved education concerning the effects of muscle relaxants and repeated cognitive exposure[4,5] to the moment when he believed death was imminent, using video from a BBC television documentary of the author receiving muscle relaxant without anaesthetic. Following exposure sessions in clinic, the patient viewed the video at home on a daily basis.

Initially there was a reduction in the severity, although not the frequency of nightmares: the patient noticed he was not as distressed by the vivid dreams as hitherto following the early exposure sessions. By the fifth week of exposure treatment, the emergence paralysis nightmares had ceased.

This case illustrates how a patient's catastrophic misunderstanding of their intra-operative predicament leads to psychological trauma with post-operative sequelae.[2,3] Detailed psychological assessment revealed the nature of the original traumatic misapprehension, leading to explanation of the reasons for the experience and effective exposure treatment.[4,5]

Keywords: Anaesthetic awareness, awake paralysis, post-traumatic stress disorder, cognitive behavior therapy.

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Biography

Prof. Michael Wang, BSc(Hons), MSc(Clin.Psy), PhD, C. Psychol., FBPsS, is Emeritus Professor of Clinical Psychology in the Clinical Psychology Unit, Centre for Medicine, University of Leicester, and former Director of the National Health Service-funded Doctoral Postgraduate Clinical Psychology Training Course (2005-2014). He is a former Chair of the Division of Clinical Psychology of the British Psychological Society. Prof. Wang is also a full practitioner member of the BPS Division of Neuropsychology and a member of the BPS Division of Health Psychology.

He has worked as a clinical psychologist for more than 35 years. Prior to his appointment in Leicester he was Director of the 6-year, integrated Doctoral Clinical Psychology Training Course at the University of Hull. Throughout his academic career he has maintained an Honorary Consultant role in the NHS, treating patients with anxiety disorders, depression and obsessional compulsive disorder. He has more than 20 years' experience of examining patients with traumatic brain injury for the UK courts.

He obtained his three degrees from the University of Manchester: following graduating with a BSc in Psychology in 1978 he began his professional postgraduate training in Clinical Psychology in the Faculty of Medicine. Subsequently he completed a research PhD in 1990 which investigated learning and memory in alcoholics.

Over recent years Prof Wang has gained an international reputation for his research on cognitive and memory function during general anaesthesia. In 2004 he organized the 6th International Symposium on Memory and Awareness in Anaesthesia and Intensive Care (in Hull) – the foremost international forum for clinical research in this particular field. He has held appointments on a number of prominent committees in the British Psychological Society including the professional accrediting body for clinical psychology training, and a committee that is in the process of determining national standards for competence in the use of neuropsychological tests. He has served as an expert advisor on a NICE (UK) Committee in relation to the monitoring of depth of anaesthesia and also as an expert member of the Royal College of Anaesthesia's National Audit Project 5 (a national audit of anaesthetic awareness reports). In 1999 he was made Fellow of the British Psychological Society and is also a Fellow of the Royal Society of Medicine.

In 2015 he was awarded the Humphry Davy Medal by the Royal College of Anaesthetists for his contribution to the understanding of accidental awareness during general anaesthesia.

Prof. Wang has published more than 60 papers in peer-reviewed journals, and numerous book chapters. He has been an invited speaker at international conferences on more than 30 occasions. In collaboration with colleagues he has won more than £1.2 million in research funding. He has supervised more than 40 doctoral research projects over the past 25 years. He has been a regular contributor and session chair at recent InPACT conferences, and recently joined the conference team as a co-organiser.

FROM SCREEN TO THERAPEUTIC SETTING: IMAGES OF THERAPY INSIDE AND OUTSIDE THE OFFICE

Prof. Dr. Pedro Oliveira
MSc on Anthropology and Child Development, PhD in Social Anthropology
Clinical Psychologist, Member of the Portuguese Order of Psychologists (Portugal)

Abstract

In the Western world, the influence of American culture in entertainment, film and music is everywhere. Popular interpretations of Freud, expressed in authors like *Woody Allen*, *The Silence of the Lambs* or series like *The Sopranos*, abound in American culture. While film representations actively contribute to shaping an image of psychoanalysis for lay audiences, through film, the broader field of psychotherapy and clinical psychology has become equally associated with specific cinematic references.

Film representation does not stay outside the therapy office. Patients' understanding of the psychotherapy process, at the point of deciding to enter therapy or especially in an initial phase, is likely influenced by popular conceptions of it. Despite the various negative representations of therapists on film (and the warnings of fellow psychologists to rise against them) I contend that patients' spontaneous references to 'therapy on film' can be dealt with as significant clinical material. To achieve this, one should, ideally, practice a double-gaze over this kind of data, i.e., one that stems from a clinical view (setting the evoked image of therapy on film against the patient and their history) while simultaneously bearing a 'culture-based view' (i.e. placing the evoked image in its wider cultural meaning).

After tracing a brief cultural history of therapy on film, I move to a couple of psychotherapy vignettes where popular images of therapy are talked about in the session, while their meaning is interpreted and explored. Finally, I suggest that the perceived authenticity of the therapeutic process by the patient is probably partially related to perceiving the encounter with the therapist as not abiding by its cultural representation.

Biography

Trained initially in clinical psychology, with an emphasis on psychodynamics and systemic approaches (University of Coimbra), Pedro Oliveira moved onto doing an MSc in anthropology and child development (Brunel University, London) sponsored by the Portuguese Foundation for Science and Technology. A PhD in social anthropology, focusing on cultural and class difference in contemporary urban identities (Brunel University, London), followed. With clinical experience gained in Portugal and the UK (Tavistock Clinic and WLMHT), Pedro maintains a dual identity as a clinical psychologist and a social anthropologist working across different applied fields, from psychotherapy to consumer research.

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EMPATHY WITHOUT EMPATHIC EXHAUSTION

Shulamith Kreitler
School of Psychological Sciences, Tel-Aviv University, Tel-Aviv (Israel)

Abstract

The paper describes an innovative program "Empathy without Compassion Fatigue" for health professionals intended to enable them to manifest empathy without suffering compassion fatigue. It is based on the theories of cognitive orientation and of meaning by Kreitler. It includes three parts: one focused on creating a motivational disposition towards bounded empathy, the second on producing a mental set focused on interpersonally-shared meaning mode, and the third on extending the meaning assignment to the situation, both of which weaken empathy. An empirical demonstration of the training of the program and its different parts with health carers showed that the program is operable, easily trained and seems to have the expected effects of reducing compassion fatigue.

Keywords: Empathy, compassion fatigue, bounded empathy, cognitive orientation, meaning.

1. Introduction

Empathy is the ability or skill to experience and understand the feelings and situation of other individuals from their perspective. Empathy is employed a lot in the therapeutic professions. Patients expect empathy on the part of their physicians and prefer doctors who are empathic (Zinn, 1993). Empathy of the doctor may reduce the patient's anxiety (Halpern, 2003), facilitate the healing process (Adler, 1997) and decrease somatoform symptoms (Bellet & Maloney, 1991). Also physicians benefit from exercising empathy: it enables them to identify the patient's illness better and faster (Bellet & Maloney, 1991). Despite general recognition of the importance of empathy in the health professions, patients complain about not getting enough empathy from their doctors (Zinn, 1993) and doctors who may try to provide empathy complain of empathic fatigue. Empathic fatigue is also called compassion fatigue (CF), may occur in health care personnel of any kind, and is manifested for example by hopelessness, stress, lower productivity, and feelings of incompetency which may lead to changing the profession (Figley, 1995). Thus, when health professionals evidence too little empathy, they experience distance from patients and misunderstanding of their symptoms, as well as incompetence as a human being and as a health professional. But if they experience too much empathy, they may feel too much and too often the patients' suffering, they may overwhelm the patients with their concern, they may be exhausted and experience difficulty to help as a health professional. Evidently, health professionals need to be guarded against CF.

2. Common means for reducing or preventing compassion fatigue

Awareness of burnout states in general and CF in particular has generated different proposals for combating CF. These are mostly based on common sense and personal experience. The proposals emphasize self care, for example, getting enough sleep, or having regular meals (Pfifferling, 2000), switching to research or administrative work, or focusing on self-reflection, and identifying what is important for oneself. There is barely any evidence about whether these suggestions have been applied or their effects on CF tested. In pediatric oncology health care workers it was found that CF was decreased by two relief-inducing actions: interacting with people (who are not colleagues or patients) and bodily activities, such as sport (Toren, Yalon, Golan et al., 2016). Mindfulness is the means that has been most commonly used for reducing CF. Several studies reported significant results on reduced CF in participants in several mindfulness sessions (Duarte et al., 2016). Teaching resilience had no appreciable effect on CF (Jakel et al., 2016; Pfaff et al., 2017). Participating in a formalized educational program had only a minimal effect on compassion fatigue (Klein et al., 2017). In sum, the existing suggestions and interventions are of limited utility mainly because they may result in manifesting less empathy to the patient in order to help the health care taker. The cost of this venue for patients and caretakers is too high.

3. Objectives

The purpose of the paper is to describe a program "Empathy without CF" for enabling health professionals to manifest empathy to patients without getting CF at all or only in low degree, and to present preliminary limited empirical demonstrations supporting its application.

4. The program "Empathy without CF"

Three major strategies for promoting empathy without CF will be described, each accompanied by different tactic means. The tools were developed in the framework of the cognitive orientation (CO) theory that specifies conditions and components of the motivational disposition for behaviors and physiological states (Kreitler & Kreitler, 1982), and the theory of meaning that deals with the cognitive networks underlying performance in the cognitive and personality domains (Kreitler, 2014). The CO theory specifies the means for creating a motivational disposition orienting toward empathy without CF while the meaning theory is designed to enable the creation of a mental set that regulates one's internal and external emotional reactions and subjectively-toned responses of empathy without CF.

4.1. Assumptions underlying the program

The major assumptions leading to the program "Empathy without CF" are that empathy and compassion are tendencies of limited quantity, need to be exercised with caution, under control, and that it is advisable for caretakers to acquire a useful and easily applied set of tools for controlling at will one's empathic responses while avoiding the danger of accumulating CF. Further, what affects another person is not the experience of empathy by the health carer but rather the external behavioral manifestations that are identified as expressive of empathy. Another important assumption is that it is possible to control empathy, as shown by the following studies. The impact of mindfulness on reducing CF was mediated by self compassion which acts as a factor that shapes and focuses empathy on the other (Raab 2014). Further, the degree of empathy by therapists towards another person depends on whether that person belongs to an ingroup or an outgroup and whether the event that has affected that person is positive or negative (Cikara & Fiske, 2011). Also in mental health workers empathy is continuously affected by contextual factors and social contingencies (Santamaria-Garcia et al., 2017).

4.2. Strategy 1: Formation of a motivational disposition for "bounded empathy"

The first part in the Empathy without CF program is the formation of a motivational disposition designed to support the emergence and manifestation of "bounded empathy". The healthcare provider may elaborate this motivational approach prior to engaging in treatment and enhance it from time to time. Once acquired it will be automatically set in operation in the treatment situation. The motivational disposition is not conscious, not controlled by volition, not the product of decision making, and not the product of rational considerations of costs and benefits. It is anchored in a set of specific beliefs. In formal terms the beliefs include four types: beliefs about oneself (e.g., I like to help others), beliefs about rules and norms (e.g. One should help others), beliefs about goals (e.g. I would like to be able to help others), and beliefs about reality and other (e.g., Helping others is often difficult). In terms of contents the beliefs refer to specific themes that represent meanings identified as underlying the behavior. The themes are the result of a standard interviewing method employed with pretest subjects and based on a sequential three-step probing procedure focused on repeatedly requesting the meaning of the preceding response. The selected themes are meanings occurring in the final step in over 50% of the pretest subjects evidencing the behavior of interest and those occurring in fewer than 50% of those not manifesting that behavior. The motivational disposition may be assessed by a CO questionnaire.

The intervention for creating the motivational disposition for bounded empathy consists in mobilizing in the subject sufficient support for the themes constituting the motivational disposition by evoking beliefs of the four types. The major themes of bounded empathy are: 1. Empathy mimesis; 2. controlling the situation; 3. guarding oneself; 4. expertise more important than emotional participation. The intervention concerning the first theme focuses on beliefs supporting behaviors which evoke in patients feelings similar to those evoked by actually empathic healthcare workers, i.e., feeling accepted, appreciated, cared about, encouraged, listened to, and evoking concern and interest in the physician. The behaviors of the healthcare professional that evoke these feelings without emotional investment are: being attentive, asking questions, listening to the answers, being polite, making the impression of not being time pressured, giving hope. Behaviors that need to be avoided are telling about oneself and one's reactions, and imitating the patient's posture and movements. The healthcare provider needs to be aware that some patients feel better when the distance between them and the therapist is reduced and some feel better when it is increased. The second theme focuses on strengthening the healthcare provider's control of the

therapeutic situation by promoting beliefs, such as control of the situation reduces the patients' anxiety, strengthens their confidence in the treatment and awareness of its goals, and encourages them to act empowered. The third theme which focuses on taking care of oneself is promoted by beliefs emphasizing that taking care of oneself is a continuous process and not for special occasions or vacations, and that it is one's duty to guard one's special gifts and expertise as a healthcare provider. The fourth theme which focuses on the greater importance of expertise than of emotional participation is promoted by beliefs such as, expert healing skills are rare and difficult to acquire, patients need to benefit maximally from the particular skills of the healthcarer, evoked emotions in the healthcarer as well as in the patient may be distractive insofar as the goals of treatment are concerned.

4.3. Strategy 2: Creation of a mental set that regulates one's internal and external emotional reactions with a focus on the interpersonally-shared mode of meaning

This specific mental set that promotes bounded empathy and safeguards the healthcare professional from CF once mastered may be turned on at will prior to the situation. It is based on the meaning system approach (Kreitler, 1999, 2014), which showed that every meaning may be stated or expressed in one of the two major meaning modes: the interpersonally-shared mode, which is is used mainly in interpersonal communication or the personal-subjective mode, which is used mainly for the expression of personal experiences. The two modes differ structurally, i.e., in the relations between the referents and the contents, but not in the referents or the contents themselves. The interpersonally-shared mode uses mainly the attributive relation (e.g., Love – is an emotion) and the comparative relation (e.g. Love –resembles happiness), and the personal-subjective meaning expresses meanings in the illustrative-exemplifying form (e.g., Love – a mother holds her baby) or by the use of metaphors or symbols (e.g. Love – is like the spring of life). Emotional empathy is related to the salience of personal-subjective meaning. Hence, lowering empathy and CF consists in promoting the interpersonally-shared mode of meaning.

The training of strategy 2. includes three steps. The first step consists in learning to identify the two modes of meaning, by presenting to the participants examples of both modes for identification and by requesting active production of examples in both modes. The second step consists in learning to switch between the two modes of meaning, by practicing the switch. The third step consists in learning to establish the interpersonally-shared meaning by focusing intentionally on the interpersonally-shared meaning and overlooking the personal-subjective meanings in the situation of treating patients.

4.4. Strategy 3: Meaning-assignment to a present or unfolding situation in terms of a broad structured network of meaning dimensions that stabilizes one's empathic responses

This strategy should be mastered prior to the encounter with patients and may be applied in an enhanced form in the course of the treatment. Its training includes two major parts. The first is devoted to extending and enriching the meaning of the treatment situation and major referents in it. The second part focuses on highlighting the differences and separation between "me/I" and "the other". The training of the first part consists in identifying referents (i.e. the objects or constructs to which meaning is assigned), learning about the meaning dimensions (i.e., the major categories of contents that constitute meaning) and assigning meaning values (i.e., actual meaning responses) to the different identified referents. Referents are trained for example by directing participants to name or point out specific objects in treatment situations that may be presented verbally or visually (e.g., chair, stretcher, window, doctor). Meaning dimensions are trained by presenting the 22 content categories to the participants, describing each, providing examples for each and asking the participants to provide examples on their own. Meaning dimensions are, for example, sensory qualities, emotional aspects, manner of operation, actions, temporal qualities, location, possessions etc. Assigning meaning values to identified referents is trained by asking the participants to produce varied meaning responses (at least 3) describing selected referents in the therapeutic situation, e.g., chair – a piece of furniture, is made of wood, serves for sitting; stethoscope – a medical instrument, used for listening to sounds in the body, during patient examination.

The second part of strategy 3 which deals with strengthening the gap between "I" and "the other", focuses on producing responses that exemplify and emphasize the differences. For example, the participants are asked to feel different parts of their body (at least 3, e.g., their legs, chest, face), to state to oneself 3 different sensory qualities one has: e.g., my hair/face/color vision/taste… and 3 different traits one has: e.g., I am intelligent/ patient/impulsive. Further, the participant is requested to state to oneself three statements expressing differences between oneself and one's patient (for example, I differ from my patient in age/gender/profession/my patient's experiences differ from the ones I have had etc.). This part may include also statements distinguishing between "patient's feelings", "feelings I have experienced", "my feelings due to identification with the patient" and "my feelings towards the patient and in reaction/response to the patient".

5. Empirical demonstrations

5.1. Objectives and method

The objective of the four studies that will be described briefly was to test the assumption that the program for "Empathy without CF" is at all operable and seems likely to attain its professed goal. The subjects in all studies were nurses who have been working in pediatric oncology wards for over 15 years and complained of burnout. They were all administered prior to the studies the Compassion Fatigue Scale Revised (Gentry…), based on the original Figley (1995) scale, which includes 13 items each rated on using a 10-point, visual, analog-type Likert-type scale (1 = *never or rarely*, 10 = *very often*). The subjects were divided randomly into five groups, with 4-5 participants in each. The training in one group was focused on the formation of the motivational disposition for bounded empathy; in the second group on the creation of the mental set of the interpersonally-shared mode of meaning; in the third group to extending the meaning of the situation; and in the fourth group to a minimal exposure to all three parts of the program of Empathy without CF. A fifth group served as control and got merely the opportunity to discuss their work for the same number of sessions as the participants in the other four groups. The training in the different groups was performed by two psychology students according to the guidelines. Each training lasted for two sessions of 40 minutes each. The first assessment of CF was done prior to any training. The second assessment was done three weeks later, during which the subjects continued their regular work. The training of the different groups was not performed at the same time in order to prevent effects due to interactions between the subjects in the different groups. The subjects were told that they are participating in a preliminary exploration designed to examine the feasibility of a program.

Table 1. Means and SDs of CF in the pre-test and post-test phases in five groups of subjects.

No.	Experimental manipulation (kind of training)	Mean and SD of CF prior to training	Mean and SD of CF post training	Number of participants who changed CF score
1	Formation of a motivational disposition for bounded empathy	7.2 (2.1)	5.4 (3.3)	Up= 0; Down=3; No change=2
2	Creation of a mental set for an interpersonally-shared meaning mode	6.9 (1.9)	5.9 (3.4)	Up=1; Down=3; No change=1
3	Extension of meaning of the situation	7.0 (2.3)	6.5 (2.7)	Up=1; Down=2; No change=1
4	Complete three-step program (mini-format)	6.8 (2.1)	5.6 (2.8)	Up=0; Down=4; No change=0
5	Control group (no training at all)	6.9 (2.7)	7.2 (2.8)	Up=3; Down=1; No change=0

5.2. Results and discussion

The results presented in table 1 are barely suggestive for findings that could perhaps be expected when the full experiment of examining the effects of the program is performed. Considering the small number of beyond supporting the feasibility of the program, the results show that the training in the different groups follows in general the expected directions. Considering the small number of subjects note significance of the mean differences between pre and post cannot be computed. However, it is of interest to note that in all four groups exposed to training the means in the CF in the post stage are lower than in the pre stage, in contrast to the slight increase in CF in the control group. An encouraging perspective on the potentials of the program is provided by comparing the numbers of subjects who's scores rise, decrease or remain unchanged. Comparing the four experimental groups together and the control group shows that there are negligible differences in the numbers of those whose scores rise (2 versus 3) or go up (4 versus 0) but the difference in regard to those whose scores go down is impressive: 12 subjects had lower CF in the four experimental groups in the post stage in contrast to 1 subject in the control group (by the binomial test the probability of getting this distribution in a sample of 13 is <.002).

6. Summary and conclusions

A three-tier program for attaining Empathy without CF has been presented. The major assumptions underlying the program are that empathy can be controlled, and that patients do not actually need the empathy of the health professionals but mainly its manifestations that bring about the effects of empathy. The program is based on two separate theoretical approaches –the cognitive orientation theory that deals with shaping motivational dispositions and the meaning theory that deals with mental sets and meaning assignment. Accordingly, the program includes a part that focuses on producing in the healthcare professionals a motivational disposition for bounded empathy and other two parts that deal with producing in them the adequate meaning-based mental set and meaning assignment approach. While the motivational disposition contributes to determining the goal of the behavior, the meaning-based set and meaning assignment approach contribute to the operational aspect by rendering the attainment of bounded empathy possible and shaping its actual manner of operation. The program is designed for use

by all health care providers on all levels, including the professional ones as well as the informal and non-professional ones, all of whom had been shown to suffer from CF.

The empirical demonstration of the training of the program provided suggestive evidence that the effects of the program are as expected and enable at least a tendency of reducing CF. Additionally, the empirical demonstration showed that the program is operable and that its teaching is acceptable and easy for the trainees. Actually, two sessions of 40 minutes each sufficed for establishing at least the basis for the activation of the program. It needs to be examined in further research how much improvement in reducing CF may be attained by longer investment in the training. An important advantage of the program is that its different tools may be trained and applied separately with fairly good effects and not only in one whole package. Further, it is likely that after a brief training, the effects of the program will be enhanced and become habitual through the mere repeated application of its tools by the health carers themselves, without additional training by experts. Notably, the program has two important benefits. First, in line with the underlying theoretical approaches, the program does not deal openly and directly with empathy and its weakening for the sake of reducing CF. The theoretical approaches focus the training on major underlying processes of motivation and meaning which do not mention empathy directly and hence prevent the involvement of conscious attitudes towards empathy and the evocation of response based on social desirability or resistance. Finally, it is likely that the different components of the program may be applied by the practitioners also outside the framework of providing health care, for the control of their emotional behavior and the enrichment of their cognitive approach in any context in which they function.

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MICROAGGRESSIONS, DAILY HASSLES, AND MENTAL HEALTH CONCERNS AMONG U.S. RACIAL-ETHNIC UNIVERSITY STUDENTS

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Abstract

Racial-ethnic microaggressions have been found to be significant stressors in the lives of racial and ethnic minorities and associated with poor health and well-being. Racial-ethnic microaggressions have been described as statements, actions, or symbols that insult or put down people because of groups differences based on race and ethnicity. Although race and ethnically based microaggressions can happen to anyone, there is evidence to suggest that racial and ethnic minority groups often experience significantly greater numbers than majority group members, and subsequent threats to health and mental health.

Some have suggested that microaggressions may be akin to the experience of daily hassles, i.e., common, minor, but stressful inconveniences that students might endure. Daily hassles are contrasted with major life events; however, the cumulative negative impact of daily hassle stress on health and mental health has been documented. In order to begin to understand these relationships, the current study examined the relationship of microaggressions with daily hassles experienced by racial-ethnic minority college students ($n = 244$), and then examined the relationships of those stressors with symptoms of anxiety and alcohol consumption. The results were quite interesting: racial and ethnic microaggressions were significantly associated with daily hassles among minority college students, although the association suggested an exceedingly modest relationship ($r = .22, p < .005$). In addition, both microaggressions and daily hassles were significant associated with anxiety symptoms ($R^2 = .24, p < .001$), but when examining alcohol use behaviors, only daily hassles were found to be significantly associated with alcohol related consequences after controlling for consumption rates ($R^2 = .18, p < .001$). Results will be interpreted, and next steps proposed to better understand and address these threats to student health.

Keywords: Microaggressions, daily hassles, race, college.

BALANCING COMPETING AGENDAS: CONSIDERATIONS WHEN PROVIDING PSYCHOLOGICAL TREATMENT FOR TRANSGENDER CHILDREN AND ADOLESCENTS

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Abstract

There are ongoing debates regarding the best practice treatment approaches for children and adolescents with gender dysphoria. Current treatment approaches suggested by the World Professional Association for Transgender Health (WPATH) are quite different for these two groups due to developmental differences, which impact the process of gender identity consolidation. Common complaints from the transgender community, especially from older adolescents and adults, are that psychological service providers act as a 'gate keeper' and delay medical treatments, such as gender affirming hormones or surgery that individuals desperately need. This delay in receiving medical treatment may cause stress, increase feelings of gender dysphoria, and can negatively impact the mental health of transgender clients. On the other hand, many parents of transgender children and youth express concerns when service providers provide medical treatment to their child prematurely, fearing it will cause irreversible damages to their child. Psychological service providers may struggle to address these competing treatment agendas appropriately due to inherent biases or a lack of competency in supporting the transgender population. Psychological service providers must strive to find a balance between facilitating clients in accessing their desired medical treatment while supporting families and the individual clients in consolidating their gender identity in the context of a safe and affirming environment. These at times competing treatment agendas highlight two different client needs: a) the need to explore and consolidate one's gender identity and b) the need to live in one's affirmed gender. This presentation will discuss the differences between these two treatment agendas and how they impact the child and older adolescent transgender population. This presentation will also highlight important considerations regarding the clients' developmental level, mental health, maturity, functioning of the support system, and life experiences and how these factors can help service providers to determine the best practice and serve the best interest of the client. Lastly, this presentation will also address how to provide treatment for transgender people with co-morbidity when considering these two competing treatment agendas.

Keywords: Children with gender dysphoria, gender dysphoria, transgender, transgender care.

1. Introduction

The terms transgender and gender diverse refer to individuals whose gender identities differ from the societal gender norms associated with their birth sex. Gender dysphoria is a term used to describe psychological distress that occurs when birth sex and gender identity are not aligned. Recently, there has been a surge in demand for psychological services from individuals who identify as transgender or gender diverse, including adolescents and adults (Wong & Chang, 2015). Additionally, increasing numbers of younger children between the ages of six and 12-years-old, and their families are beginning to access services as well (Wong & Chang, 2015). Often, a major role of psychological services providers is providing assessment for gender dysphoria and determining whether transgender individuals have the capacity to consent for gender affirming medical treatment. Psychological service providers also assess and treat complicating factors, including mental health problems. The World Professional Association for Transgender Health Standards of Care Guidelines (WPATH SOC 7, Coleman, et al., 2012) provides a clear protocol to help mental health professionals determine an individual's capacity to consent to treatment, which includes understanding the risks and benefits of treatment, and determining whether the individual is emotionally stable. While a similar approach may be appropriate for older adolescents who have consolidated their gender identity, it may not be applicable to children or younger adolescents

because they are still in the process of consolidating their gender identity. The WPATH SOC 7 (Coleman, et al., 2012) does not provide clear guidelines for psychological service providers who work with children with gender dysphoria, so it is often left up to the clinician to determine the appropriate approach to working with these clients on a case by case basis. Some clinicians may choose to use an expanded adult model, whereas others may be at a loss for how to conceptualize the treatment approach. While gender identity consolidation is an important client need for children and adolescents, at times this need can be in conflict with the client's need to move forward with a medical and physical transition that allows them to feel more aligned with their affirmed gender. Gender identity consolidation takes time, but often clients feel that time is working against them because puberty is causing their body to develop in a direction that is in opposition with their gender identity. These two at times competing client needs must be navigated by psychological service providers when working with transgender children and adolescents; considerations surrounding this issue will be the focus of this paper.

2. The need to explore and consolidate one's gender identity

The American Pediatric Association (2015) suggests that children become aware of their gender identity at a relatively young age, and are able to consistently identify themselves as boys or girls by age 4. Young gender diverse children may be aware of their gender early on, but they are more likely to still be in the process of consolidating their gender identity. While society perpetuates that gender identities are fixed and binary, increasingly it is acknowledged that gender identity can be multi-faceted, fluid, and emergent (Austin, 2018). Psychological service providers are in a position to facilitate discussions about the complexity of gender identity with clients and provide a safe space to explore diverse gender identities and expressions that feel comfortable for individual clients.

Researchers have reported that the majority of children who are identified as transgender or gender variant do not persist in identifying as such into adulthood (Levine, 2013; Zucker, 2010). However, other scholars have pointed out that flaws in this research may have contributed to inaccurate findings (Ehrensaft, 2016; Olson, 2016; SAMHSA, 2015). Specifically, erroneous sampling procedures could have contributed to children being included in the sample who did not truly identify as transgender, and pressure to conform to gender-normative behaviour could result in participants not being forthcoming about persistent gender dysphoria at follow-up (Ehrensaft, 2016; Olson, 2016; SAMHSA, 2015). Given these criticisms, it is likely that research evidence significantly underestimates the number of children with transgender identities that persist throughout their lifespan. Emerging research indicates that a child's transgender identity is more likely to remain stable when their cross-gender identification is severe, consistent, persistent, and insistent over time and across developmental stages (Forcier & Haddad, 2013).

3. The need for timely physical and medical transition

Scholars suggest that adolescence is also a critical time for gender identity consolidation in gender non-conforming individuals (Steensma, Kreukels, de Vries, & Cohen-Kettenis, 2013). However, the emerging physical changes associated with puberty can significantly increase the gender dysphoria experienced by adolescents. This increased dysphoria can heighten the desire to move forward in physically transitioning to their affirmed gender. For some adolescents, the desire to begin gender affirming medical treatments such as hormone therapy can be strong. This can create a strain between adolescents and their caregivers who are reluctant to have their child start non-reversible therapies; these competing agendas between parents and adolescents can be challenging to navigate and must be carefully managed by psychological service providers.

Additionally, for children and adolescents the gap between physical and emotional maturity can be quite large, which can also pose challenges for service providers (Steinberg, Cauffman, Woolard, Graham, & Banich, 2009). For example. children may begin to experience physical changes associated with puberty as young as 9-years-old, but it is unlikely that they have the emotional and cognitive maturity to understand the consequences of beginning non-reversible medical treatments at this age. Healthcare providers can prescribe hormone blockers, which prevents pubertal changes from occurring and is considered a fully reversible medical treatment. Psychological service providers can support families in considering this treatment option, which allows for additional time for the child to consolidate their gender identity without experiencing the increased dysphoria that can occur along with the physical changes of puberty.

Evidence supports that for individuals whose gender dysphoria persists into adolescence, the likelihood of the gender dysphoria continuing across the lifespan is high (Cohen-Kettenis & van Goozen, 1997; Smith, Van Goozen, Kuiper, & Cohen-Kettenis, 2005; De Vries, McGuire, Steensma, Wagenaar,

Doreleijers, & Cohen-Kettenis, 2014). For this reason, gender affirming medical treatments are often first considered at this stage of development. However, it must be noted that not all transgender and gender diverse adolescents will wish to undergo gender affirming medical treatments. For some individuals, social transition will be sufficient to reduce their gender dysphoria. Others may wish to use gender affirming hormone treatments, but may not be interested in gender affirming surgeries. It is important that psychological service providers work with clients to inform them about the different treatment options, and support the clients in exploring the option that is best for them.

4. Developmental model for providing psychological supports to transgender and gender diverse children and youth

As previously stated, when providing psychological services to transgender children and adolescents, two key client needs must be considered: the need to consolidate one's gender identity, and the need to move forward with physical and medical transitions that align with one's affirmed gender. Figure 1 depicts how the emphasis is likely to shift based on the age and developmental stage of the client. As depicted, for younger children the need to consolidate one's gender identity is likely to be emphasized, and for older adolescents physically and medically transitioning toward one's affirmed gender is likely to be a more pressing agenda. However, both client needs must be taken into account across developmental stages and considered with respect to individual factors such as onset of puberty, emotional maturity, and presence of familial and social supports. These client needs must be considered within the context of other relevant factors such as client mental health and the presence of developmental disorders such as autism spectrum disorder.

Figure 1. Shifting emphasis in client treatment needs based on age / developmental stage.
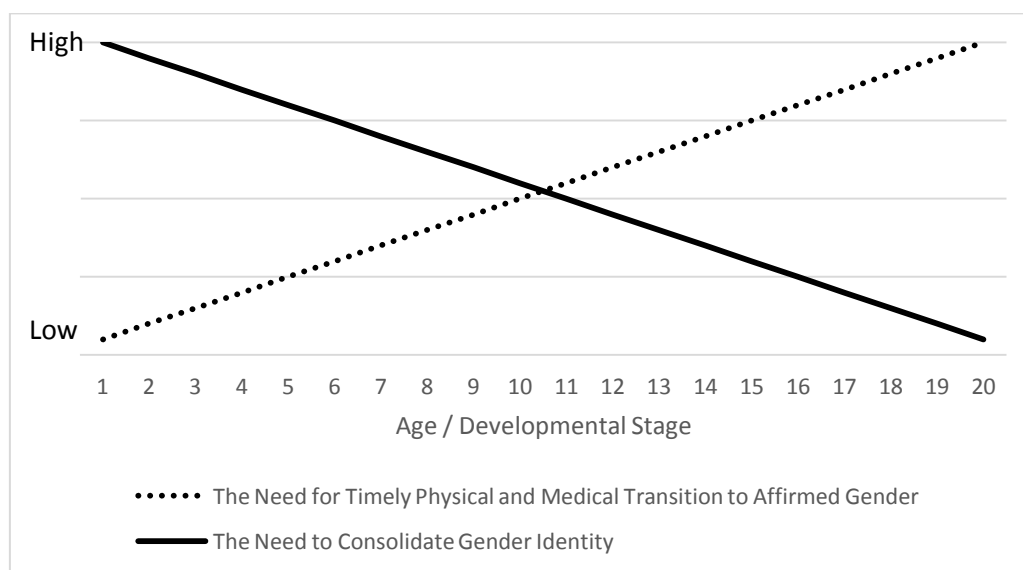
5. Discussion and recommendations

5.1 Transgender affirmative approach

An affirmative practice is essential for work with transgender and gender diverse children and youth. Affirmative practice means that service providers avoid pathologizing clients' gender identities, but rather affirm, validate, and accept the full range of gender experiences, including both binary and non-binary identities (Austin, 2018). In order to assume an affirmative approach, service providers must develop comprehensive knowledge of the unique healthcare needs of this population, acknowledge the systemic barriers and discrimination that many transgender individuals are faced with, while simultaneously balancing the clients' competing needs.

5.2 Employ a bio-psycho-social framework to treatment conceptualization

When providing psychological services to transgender children and youth, it is imperative to move beyond treating the individual and attend to the child's social environment. Clinicians must work with families and schools to help them gain the skills to provide a safe, supportive and affirming

environment for the child to both consolidate and express their gender identity. This may involve facilitating families and schools in supporting the child to socially transition and live in their affirmed gender. Social transitions often includes choosing clothes that reflect their gender identity, a preferred name, and pronouns. For a detailed discussion about social transition, please see Wong & Chang (2015). Psychological services providers also act as advocates for their clients and facilitate family members in acting as advocates as well.

Emerging evidence suggests that transgender and gender diverse children and youth are at an increased risk for experiencing suicide ideation, anxiety, and mood disorders (Spack et al., 2012; Hewitt et al., 2012; Holt et al., 2014). As such, their psychological health must be monitored and supported on an ongoing basis. Working with transgender children and adolescents often involves providing assessment and support as they seek gender affirming medical treatments so it is imperative that psychological service providers consider the biological domain as well. This may include discussions with clients about observed pubertal changes and the side effects of different medical treatments.

6. Conclusion

There is a lack of consensus in the research literature regarding the persistence of transgender identities in children and it has been recently acknowledged that gender is more accurately considered a multi-dimensional construct than binary. To this end, psychological service providers must prioritize instilling a safe and affirming environment for children to explore and consolidate their gender identity during this developmental stage. Gender dysphoria that persists throughout adolescence is likely to remain stable across the lifespan. As transgender and gender diverse children progress with their physical and cognitive development, their need for timely physical and medical treatments that help them to feel more aligned with their affirmed gender is likely to increase. In working with this population, psychological service providers must strive to balance both of these client needs, gender identity consolidation and the need to begin gender affirming medical treatments.

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CULTURAL AND INDIVIDUAL DIFFERENCES IN DATING ANXIETY AMONG AMERICAN AND POLISH YOUNG ADULTS

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Abstract

The current study was intended to determine the possible differences in dating anxiety as a function of nationality or relationship status among 431 US and 395 Polish participants (mean age = 22.92). The analyses demonstrated that Polish respondents reported higher dating anxiety than US respondents, Wilks' λ = 0.88, $F(3,770)$ = 35.14, p <.001; partnered individuals reported lower dating anxiety (i.e., fear of negative evaluation and social distress dating) than single individuals, Wilks' λ = 0.94, $F(3,770)$ = 15.14, p <.001; there were significant nationality and relationship status interactions for social distress-dating, $F(1,772)$ = 6.67, p < .01, and fear of negative evaluation, $F(1,771)$ = 10.65, p < .001. More specifically, dating anxiety was higher among all single participants, but this effect was particularly exaggerated among Polish single participants; and fear of negative evaluation was more strongly associated with partner status for Polish versus American participants. In light of obtained results it appears that Polish participants benefit more than Americans in terms of mental health when they have a romantic partner. However, at the same time, they appear to suffer more than Americans when they do not have a romantic partner.

Keywords: Dating anxiety, cultural differences, individual differences, young adults.

1. Introduction

Dating anxiety is a significant problem among college students and adults, and feelings of anxiety and distress in dating situations can interfere with the ability to form and sustain close and intimate romantic relationships (Chorney & Morris, 2008). Therefore, the inability to comfortably participate in romantic interactions may eventually lead to the development of dysfunctional patterns of behavior (Allen et al., 1998). For instance, dating anxiety may prevent many young adults from establishing romantic partnerships (La Greca & Mackey, 2007).

Alongside individual differences in the domain of dating anxiety, in the current study we also focused on cross-cultural comparisons between Americana and Polish participants. The intention of performing such comparisons was derived among others by the notion that Poland in comparison to the United States of America has unique qualities derived from a traditional notion of appropriate or normative life paths in adulthood, which includes heterosexual marriage and having children, a relatively low rate of divorces, and less approval for alternative family and marital forms. In contrast, singlehood has become increasingly common and accepted in the United States of American in recent years.

2. Objectives

The primary aim of the present investigation is to determine possible differences in dating anxiety as a function of nationality and relationship status (i.e., single versus partnered). A secondary aim is to determine if there is an interaction between nationality and relationship status such that differences between single and partnered people in terms of dating anxiety are across the two nationalities. In regard to the linkage between relationship status and dating anxiety we expected that single individuals would report higher dating anxiety in the domains of fear of negative evaluation, social distress-dating, and social distress-group. Additionally, regarding the exploratory nature of the present study with respect to cross-cultural comparisons, we did not formulate specific hypotheses but we posted a research question for examination:

RQ1. Are there differences between Polish and American young adults in dating anxiety, and if so, in what domains of dating anxiety?

3. Methods

3.1. Participants and procedure

The study was conducted on a sample of 431 US and 395 Polish participants (M = 22.92, SD = 4.24) Women represented 67% of the sample and men represented 30%, with 3% missing this information. There were 461 participants (56%) who reported being in a romantic relationship at the time of the assessment, while 335 participants (41%) were not, and 30 (4%) were missing this information.

To recruit Polish and American participants, the authors distributed questionnaires in the form of online survey by using an online computer program 'Qualtrics' available at many American universities. Qualtrics allows users to view and complete the survey at their own pace on their computer, while storing all of the responses in single data file.

3.2. Materials

The questionnaire presented to participants was comprised of the following instruments:

Demographic Questionnaire. A series of demographic questions was asked to obtain general descriptive information about participants' background such as their age, sex, education level, and current relationship status.

Dating Anxiety Scale for Adolescents (DAS-A; Glickman & La Greca, 2004) (Polish adaptation for adults – Adamczyk, 2015). The original DAS-A assesses adolescents' anxiety in heterosocial and dating situations. It contains of 21 items rated on a 5-point scale ranging from *1* (not at all characteristic of me) to *5* (extremely characteristic of me) with additional five filler items. The questionnaire is comprised of the following three subscales: Fear of Negative Evaluation – Dating (FNE- Dating; concern or worry that a date or a member of the opposite sex would judge the self in a negative manner), Social Distress-Dating (SD - Date; distress while interacting with a member of the opposite sex on a date or social occasion), and Social Distress-Group (SD - Group; inhibition and distress during heterosocial group situations). Glickman and La Greca (2004) investigated and found the subscales to have good internal consistency: .94 for total DAS-A, .92 for FNE-Dating, .88 for SD-Date, and .81 for SD-Group.

4. Results

The analyses demonstrated that Polish respondents reported higher dating anxiety than US respondents, Wilks' λ = 0.88, $F(3,770)$ = 35.14, p <.001; partnered individuals reported lower dating anxiety (i.e. fear of negative evaluation and social distress dating) than single individuals, Wilks' λ = 0.94, $F(3,770)$ = 15.14, p <.001; there were significant nationality by relationship status interactions for social distress-dating, $F(1,772)$ = 6.67, $p < .01$, and fear of negative evaluation, $F(1,771)$ = 10.65, $p < .001$. More specifically, dating anxiety was higher among all single participants, but that this effect was particularly exaggerated among Polish single participants; and fear of negative evaluation was more strongly associated with partner status for Polish versus American participants.

5. Discussion

The present study was designed to test for differences in dating anxiety as a function of partnership status and nationality. The results demonstrated the existance of individidual and cross-cultural differences between Polish and American young aduults in the domain of dating anxiety. Furthermore, there was an interaction between partner status and nationality indicating that single versus partnered differences in dating anxiety had different magnitudes in the Polish compared to American cultures.

First, partnered individuals reported lower dating anxiety (i.e., fear of negative evaluation and social distress dating) than single individuals. This pattern of results (although of correlational nature) suggest that dating anxiety (of high level) may hinder the possibility to comfortably participate in dating situations which, in turn, allow finding a partner and formation a relationship, resulting in single status. A related possibility might be that experience in a close relationship has reduced participants' dating anxiety though repeated exposure to dating.

Second, the performed analyses revealed that Polish respondents reported higher dating anxiety than US respondents. Also, dating anxiety was higher among single participants, but this effect was

particularly exaggerated among Polish single participants; and fear of negative evaluation was more strongly associated with partner status for Polish versus American participants.

The higher level of dating anxiety among Polish respondents may be undertood as a funciton of the Poland culture not endorsing and embracing an ethos of dating to the same extent as in the United States of America. Although Polish adolescents and young adults date, in Poland people perceive dating in terms of a serious manner pursuant to finding a lifetime partner. Therefore, this serious and obliging nature of dating in Poland may result in a higher level of dating anxiety among Polish respondents. It is particularly interesting to note that one of the aspects of dating anxiety, namely fear of negative evaluation (i.e., concern or worry that a date or a member of the opposite sex would judge the self in a negative manner) was especially high among Polish young adults in comparison to their American counterparts. This pattern of results suggest that Polish young adults are particularly concerned and apprehensive about how they are or potentially may be perceived by the partner. It seems that, in turn, in American society the possibility of being judged (even negatively) does not lead to higher dating anxiety. American young adults appear to have a more casual approach to dating and personal relationships. For many young Americans these relationships are assumed to be temporary and not particularly consequential. As most Americans now postpone marriage until they are in their late 20s or 30s, there are few expectations for young adults to be in serious and lasting relationships. These lessened expectations may allow American youth to approach dating with fewer concerns over possible negative outcomes if their interactions and relationships do not work out, thus minimizing their experience of dating anxiety.

There are several limitations of this study. First, the correlational nature of the study precludes any causal inferences concerning the analyzed associations. For example, it is entirely plausible to assume that dating anxiety impedes young adults' ability to cultivate a close romantic relationship. At the same time, it is at least possible that experience in close relationships lessens the anxiety of participants though habituation and desensitization to the real or imagined perils of dating. Second, the age of the sample, even though representing a unique developmental state, precludes any generalizations to individuals in middle and late adulthood. For example, the consequnces of siglehood and urgency for finding a life partner would presumably be very different among middle aged adults. Despite these limitations, the present findings underscore the importance of understanding how cultureal values and norms may influence people's anxiety about dating and the possible consequences of being in, or not being in, a close and intimate relationships which is highly consequential to fulfilling attachment and self-determination needs.

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POST-STRESS DISORDERS IN SITUATION OF EASTERN UKRAINE PUBLIC CONFRONTATION

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Abstract

Donbass military activity changes public and social situation dramatically. We can see public change of emphasis in the field of public medical-psychological aid. If people change or lose their place of residence, they will suffer from indeterminacy together with moving induced stress.

Nowadays, there are more than 200 thousand Anti-Terroristic Operation (ATO) combatants and more than two and half million internally displaced persons in Ukraine.

Throughout 2014-2017, the workers of State Institution «Scientific Practical Medical Rehabilitation Diagnostic Centre of the Ministry of Health of Ukraine" in Kostyantynivka city, Donetsk region, Ukraine carry on medical examinations of local population to diagnose various kinds of post-stress disorders. 2041 adult patients took part in this medical activity; all of them were the residents of the civilian conflict area. The examinations were conducted with the help of diagnostic, anthropometrical, neurophysiological, laboratory-clinical and biochemical diagnostic medical techniques.

In accordance with our psychodiagnostic findings, the dominant emotions of ATO area residents are anxiety, fear, annoyance, hopelessness and other disorders related to stressful situation in the region. 46.9% of the examined people were direct military actions eye-witness. 12.2% of them are internally displaced people. Among post-stress disorder promoting factors we can find various kinds of negative emotional states, threat of life, threat of financial and other tangible losses and unsatisfactory financial situation.

Neurotic and somatic disorders are interconnected with various stress situations: F42.1 mixed anxiety states and somatoform disorders – 22.1%, F43.1 post-traumatic stress disorders - 18.9%, F43.2 adaptation disorders – 3.2%, F45 somatoform disorders – 11.6%, F48.0 neurasthenia – 3.2%, F41 – panic disorders -23.1%, F42 obsessive-compulsive disorders - 4,2%.

So, military-civil conflict may be characterized by various psychological structural disorders. Monitoring data obtained give us an opportunity to emphasize urgent need in development of new medical psychological aid approaches. We should make an emphasis on various psychological problems resolution in conditions of high-level emotional stress situations, induced by various physical, material and financial losses. Urgent and first aid to the people who suffer of difficult life circumstances consists of anxiety level reduction and adaptive level promotion with help of complex medical psychological aid measures in rehabilitating centers. The ultimate objective of all aforementioned measures is to render psychological assistance to the population of the military conflict area.

Keywords: Eastern Ukraine, civil confrontation, zone of the antiterrorist operation, fear, anxiety, psychosomatic disorders, medical and psychological help.

1. Introduction

Military actions in Donbass region changes social situation in Ukraine dramatically. There is a need to change the priorities in the field of medical psychological aid provision. Internally displaced people are suffering not only of transfer-induced stress, but also because of their personal socioeconomic situation uncertainty. There are more than 300,000 Anty-Terroristic Operation combatants and about 1,584,000 internally displaced peoplenow in Ukraine. Ukrainian socioeconomic situation is very straight at present too because of the continuous military actions, which threaten to civilians' lives, health and prosperity.

2. Design

According to the UNISEF data, the number of civilian victims in consequence of various armed conflicts around the world has increased dramatically. Military actions and social changes in the Eastern part of Ukraine lead to deterioration of traditional social infrastructure patterns and public relation stereotypes. All of that influences the regional social disorientation increasing and, as a result, social psychological stress situation development.

People who have lost or changed their habitations suffer not only of transfer-induced stress, but also of their social situation uncertainty. They are afraid of their health conditions deterioration, worry about their friends and relatives. All aforementioned factors promote our patients' post stress disorders development (Ioannidi and Poplavskaya 2015). Now there is an urge necessity to change general priorities in the field of medical-psychologic aid to the regional population.

3. Objectives

Our Aim is to investigate post-traumatic stress disorders (PTSD) development for the victims of regional military conflict, to validate rehabilitating medical aid measures and recommendations to the medical workers.

4.Methods

During the period of 2014-2017, the workers of State Institution "Scientific Practical Medical Rehabilitating Diagnostic Center of Ukrainian Ministry of Health" Kostiantynivka city, Donetsk region, Ukraine have conducted medical examination of the Donbass regional population to reveal and diagnose various post stress disorders. 2041 adult patients (68,7% female and 31.3% male ones), who live in the area of military civilian conflict, took part in our investigation. During our investigation, we have used various diagnostic, anthropometrical, neurophysiological, psycho-diagnostic, laboratory clinical and biochemical methodologies. Our clinical statistical investigation was conducted with help of specialized evaluation systems; among them are Mississippian diagnostic scale for PTSD (civilian and military versions recommended for psychogenic PTSD screening for military action combatants (Geuze E. 2008) and self-estimation questionnaire for emotional and physical state evaluation.

5. Discussion

According to the results of our psycho-diagnostic investigation, the main ATO region residents'prevailing emotions are anxiety, fear, irritation and helplessness associated with the current regional situation. 46.9% of the surveyed consider themselves as direct witnesses of hostilities, 12.2% of them were internally displaced people. The main contributing post-stress disorderdevelopment factors are adverse emotional states, life threatening situations, threat of material and financial losses and unsatisfactory financial situation.

According to the International Diseases Classification (MKB-10) it has been discovered that our patients suffered of neurotic and somatoform stress induced disorders: F41.2 – mixed anxiety and somatoform disorders - 22.1%, F43.1 – various posts tress disorders – 18.9%, F43.2 – adaptation disorders – 3.2%. F45 – somatoform disorders - 11.6%, F48.0 – neurasthenia – 3.2%, F41 – panic disorders – 23.1%, F42 - obsessive compulsory disorder – 4.2%.

According to the results of our psycho-diagnostic investigation, the great majority of the regional population currently suffers of anxiety (Figure 1). The sense of fear tends to decrease, but according to the data obtained, one in four examined respondents suffers of such kind of disorder.

It should be noticed that psychoemotional state changes leads to serious psychic disorders development (please, see table 1).

Figure 1. Diagnostic results (by the Mississippian diagnostic scale for PTSD). 1 – Individual PTSD signs.
2 – PTSD as a whole.
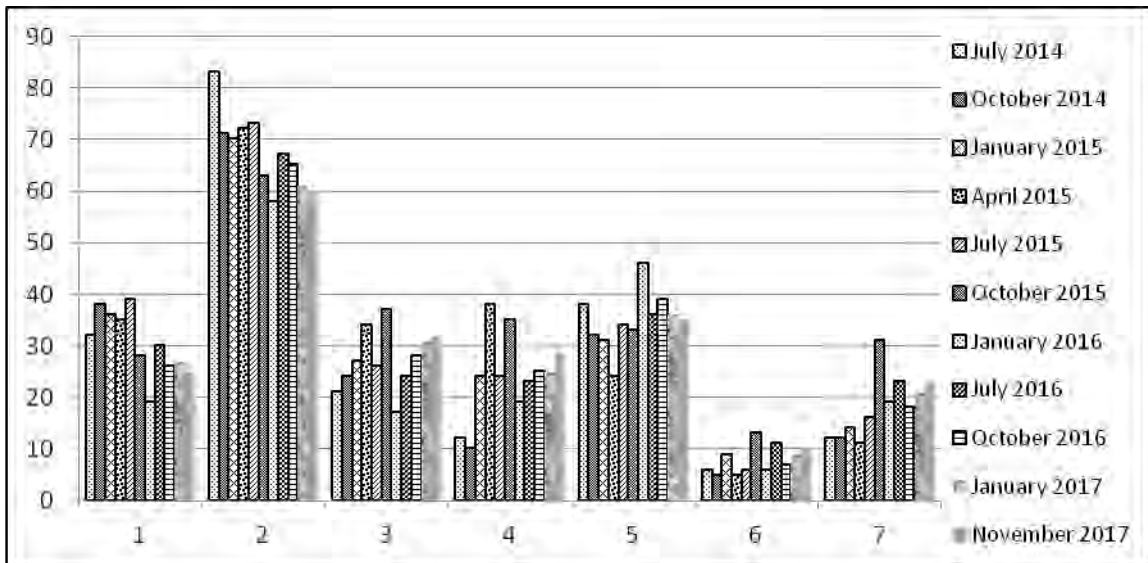
Table 1. Psychoemotional changes in the state.

Disorder category	%
F41.2 – mixed anxious and depressive disorder	22.1%
F43.1 – post traumatic stress disorder	18.9%
F43.2 – adaptive disorder	3.2%
F45 – somatoform disorder	11.6 %
F48.0 – neurasthenia	3.2%
F41 – panic disorder	23.1%
F42 – obsessive compulsory disorder	4.2%

As a result of complex diagnostic measures with help of Mississippian scale, conducted in the period from July 2014 till November 2017, it was revealed that the quantity of patients suffering from PSTD (13.8%) or some PSTD signs (33.5%) remains stably high (figure 2). It could be explained by both situation escalation in the region and patients' psychic adaptive mechanisms exhaustion because of continues psycho-traumatic factors influence.

After investigation of Eastern Ukraine population mental condition it has been discovered that long-term psycho-traumatic situations influence associated with living in the area of hostilities and life-threatening situation can lead not only to various PTSD symptoms development, but also contribute to patients' personality characteristicschanges appearance.

Figure 2. Diagnostic measures results (according to PTSD Mississippian scale).
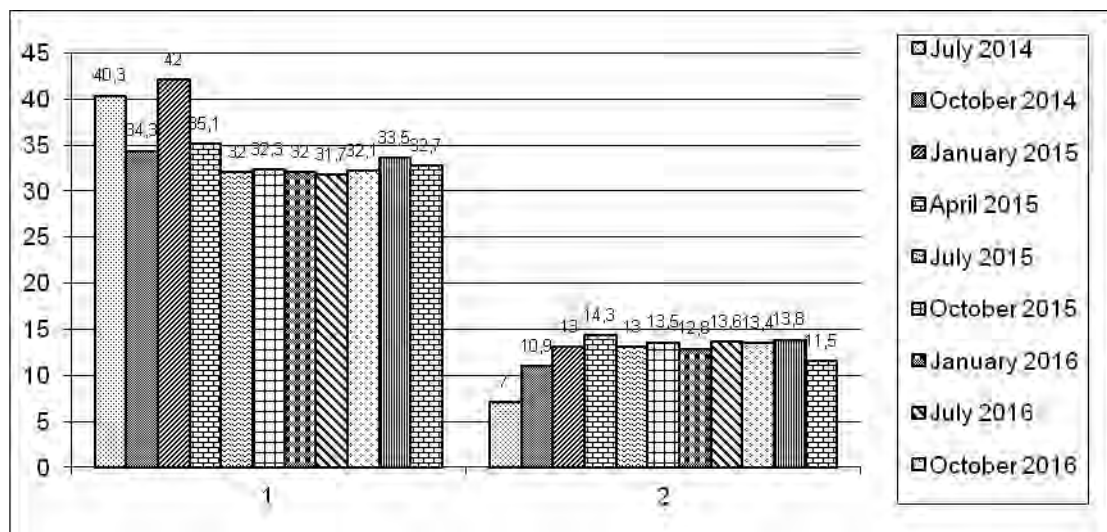
PTSD is a state of patients who suffer of multiple neurobiological systematic changes because of cognitive, affective and behavioral spheres dysregulation (Armour and O'Connor M. 2012). Not only directly traumatized patients could suffer of PTSD but the direct witnesses, victims' relatives, rescue workers and medical workers who became so called hidden victims during some disaster emergency activity (Ioannidi and Poplavskaya 2015).

During any civilian confrontation, information environment state is very important too. This environment conditionsaffect population mental state and psychological well-being in a certain way. Therefore, one of the objectives of the study was to determine the attitude of respondents to the information environment, its quality and necessity.Therefore, one of the objectives of our study was to determine the attitude of respondents to the information space in which they are located, the quality of information and the need for its receipt.

The results of ourinvestigation of regional population information perceptionare presented on the Figure 3. It has been discovered that in the period from July 2014 until July 2017, civilians' need for new information has decreased from 75.6% to 35.7%, which is substantiated by them as a lack of reliance to political and social situation in the country provided by domestic mass media.

Figure 3. Obtained research results of ATO region population information perception (%). Need for new information: increased necessity in information (upper line), news ignoring (lower line).
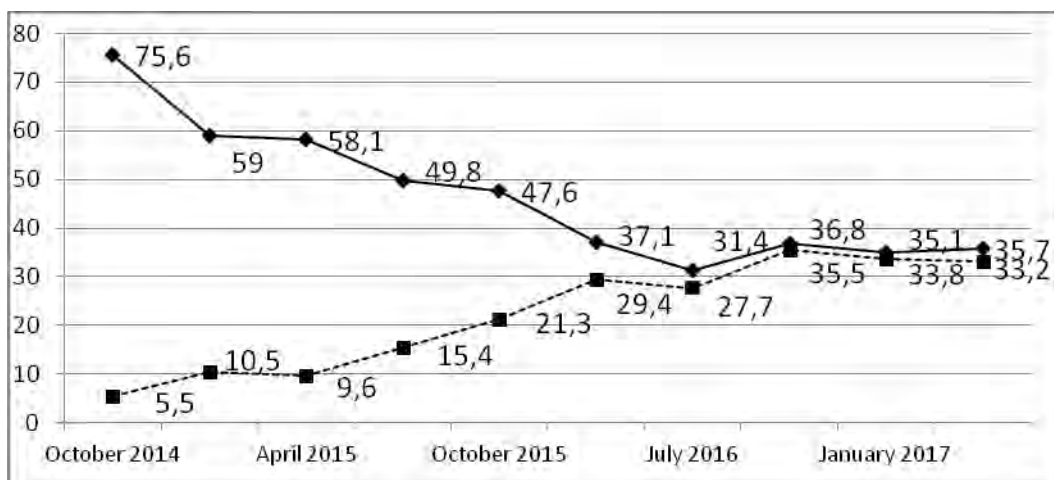
6. Conclusions

Military actions in the Eastern Ukraine take place in densely populated regions of the country, contributing to the various post-stress disordersformation for both the direct military combatants and civilians. This kind of civil conflict could be characterized by various structural disorders. Regional civil population is still a subject of various constant intensity negative influences. The number of patients who suffer of various neurotic and stress-related disorders (such as panic states, obsessive-compulsive and dissociative disorders) remains stably high (over 33%). The number of patients, who suffer ofsome PTSD signs estimates 32%,mixed anxiety and depressive disorders estimates more than 22%,andPTSD as a whole estimatesfrom 13% to 18%.

Obtained monitoring data emphasize the need of new approaches to medical and psychological aiddevelopment to the population with an emphasis on solving psychological problems in conditions of emotional stress associated with physical, material and financial losses. Urgent and high-priority assistance to people who are in difficult life circumstances consists in anxiety reduction and adaptation to new conditions of existence with the use of comprehensive medical and psychological measures in the conditions of the Centers for Rehabilitation and psychological support of the population.

This differentiated approach should be used forvarious post-stress disordersdiagnosis and rehabilitation with regulated interaction between the medical, psychological and pedagogical communities, with the active participation of family members and the necessary social structures. All of that will ensure social well-being and security levels in Ukraine.

Such approach, as practice shows, is capable of providing not only timely adequate psychiatric aid, but also addressing psycho-prophylactic and psycho-corrective measures aimed to reduce psychological and psychosomatic consequencesseverity in the conduct of hostilities in the immediate and distant periods after such complex measures completion.

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DEVELOPMENT OF A MEDICO-PSYCHOLOGICAL ASSISTANCE SYSTEM FOR CHILDREN OF EASTERN UKRAINE

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Abstract

For the areas of high level social and psychological strain, in particular as a result of various military conflicts around the world (Afghanistan, Beslan, Israel, Iran, Iraq, Syria, Somalia, Sudan, Ukraine, Chechnya) young people suffer of various kinds of physical and psychological privations.

All of that negatively effects on their psychological and emotional weightiness and their somatic and psychological well-being conditions. Investigations of psychoemotional states of pre-school-age children who live in Eastern Ukraine have shown the highest levels of anxiety, impulsiveness, aggression, defendance need and low self-judgment level. In addition, more than half of the patients' suffer of various polygamic phobias. The presented results of our scientific research emphasize medico-social assistance measures system establishment necessity.

On the basis of psychodiagnostical results obtained, the new complex medical assistance measures for pre-school-age children has been presented in our work. This aid measures complexity means cooperation (and further integration) between various pre-school educational and health care institutions, according to presented unique approach of "systematic circle" conditions.

Professional interaction, collaboration and mutual understanding is a basis for integration and further productive collaboration between psychological, pedagogical medical institutions for better results. This technology realization consists of the following implementation stages: 1st stage – Diagnostic; 2nd stage – Estimation and Planning; 3rd stage – Complex Activity; 4th stage – Summary and Recommendations; 5th stage – Recreation and Prophylactics.

There are clear tasks and executors at every stage of assistant measures provision. The main technological aspect is an interaction of teaching employees, education institution workers, practical psychologists, medical specialists and parents. This activity implementation in accordance with proposed technology provides us with an opportunity to influence and renew somatic, psychological and behavioral states of the young patients, to improve children's ability to overcome all negative circumstances of their lives.

Keywords: Eastern Ukraine, pre-school-age children, medical psychological pedagogical assistance, "systematic circle".

1. Introduction

In his studies, K.A. Idrisov notes that there is an entire generation of children, who does not have normal, happy childhood. These children had to hide themselves from the war, survive in the refugee camps and stand in queues for humanitarian aid (Idrisov, 2012). The war could be considered as traumatic epidemic phenomena. In this case, we should deal not just with ordinary physical injuries, but also with mental traumas, which consequences could be much more devastating in comparison with physical wounds. The range of such consequences is wide: from relatively slight adaptation impairment to clinically significant post-traumatic stress disorders and severe depressions (Bolnyie dushi chechenskih detey, 2014). It is obvious that these changes can turn into various post-traumatic stress disorders and have a negative impact on the children's future lives.

2. Design

Because of an armed conflict in the Eastern Ukraine, more than two million people have been internally displaced, many families lost their incomes. According to the UN Children's Fund (UNICEF) data, this extraordinary situation could be described as acute humanitarian crisis. As a result thousands of children have been left to the mercy of fate. Every fourth child in Donetsk and Luhansk regions (more than 200 thousand children in total) need urgent medical and psychological aid (Linskiy and Kuzminov, 2014).

3. Objectives

To estimate psychoemotional states children of Eastern Ukraine and to propose complex medical-psychological aid measures.

4. Methods

O.I. Zakharov's fears questionnaire, "Family Picture" and "Unknown Animal" projective methodologies, parents and educators questionnaires.

5. Discussion

During Anti-Terroristic Operation in the territory of Eastern Ukraine, the workers of the State Institution "Scientific-Practical Medical Rehabilitating Diagnostical Centre by the Ukrainian Ministry of Health" Konstantinovka city, Donetsk region, Ukraine (The Center) have investigated pre-school age children's psycho-emotional conditions according to established psycho-diagnostic complex. 180 children (aged 5-7) took part in our investigation.

It has been discovered that 98 children (54.4%) suffer of high anxiety disorders, 78 children (43.9%) have defendance need, 68 ones (37.8%) suffer of excessive impulsiveness, 58 ones (32.2%) suffer of excessive aggressiveness and 34 children (18.9%) suffer of low self-assessment.

It is widely known that 5-7 years old children often suffer of various fears such as fear of doctors, animals and darkness. During our phobias diagnosis procedure (table 1) the fear of war has been diagnosed for the very first time. Such kind of phobia is not immanent to the patients of this age category. In addition, it has been discovered that about half of examined young patients suffer of polygamic fears (102 children, 56.7%).

Table 1. Eastern Ukraine children phobias.

Kind of Phobia	Patients Quantity	%
Physical Damage	124	68.9
Medical	105	58.3
Social	94	52.2
Fear of Animals	92	51.1
War	88	48.9
Darkness	88	48.9
Open Spaces	67	37.2

During our psychodiagnostic examination, two children (1.1%) who suffered of psychosomatic and somatic disorders have been identified. These young patients received comprehensive medical and psychological aid according to proposed "systemic circle" technology.

Taking into consideration the fact that almost every child of preschool age conducts most of the time at some preschool institution, and according to our research results, emotional disturbances could be divided in accordance with its severity and various consequences. Therefore, medical aid system for this group of young patients should unified and conducted by various medical specialists according to the system of "Educator -Physiologist-Doctor-Parents" demands. Professional dialogue, cooperation and mutual understanding are the basis of the integration. Such interaction of psychological, pedagogical and medical activities should be developed in the soonest possible time. Without this interaction, it is impossible to achieve full success in young patients' healthy socialization and to find existing problems solution.

Each specialist of every psychological-medical-pedagogical system area undertakes the organization of concrete work in accordance with his or her possibilities and qualifications. Joint activity provides us with opportunity to increase the aid quality in every case, develop participants' motivation levels and create favorable relationships between specialists.

Each proposed comprehensive medical and psychological assistance implementation (psychological, medical and pedagogical technology) corresponds to a certain stage of action:

The first stage (diagnostic):

Performers: education workers, educational institution practical psychologists, parents.

Task: children psycho-emotional problems and individual characteristics diagnostics and identification; psychological and pedagogical problem formulation.

Diagnostic procedure begins when the child began to attend a kindergarten. The educator takes part in this stage, but only as an observer. The educator focuses on behavior, emotional reactions and

individual peculiarities of the child through observation and during normal social communication. The educator should find possible disturbance in the balance of the psycho-emotional state of the child. In this case, the educator should inform practical educational psychologist, who in turn conducts psychodiagnostic measures according to appropriate psychodiagnostic complex.

Systematization and structuring of the diagnostic complex allows us to determine the optimal number of techniques and indicators of violations of the emotional-volitional sphere. It is possible to organize effective psycho-correctional aid measures only in case of successful qualitative psychodiagnostic examination.

Stage 2. «Estimation and Planning»:

Performers: practical educational institution psychologists, practical medical institution psychologists, medical workers, young patients and their parents.

Task: conclusions formation and further activities planning.

Based on the results of psychological testing, a working conclusion should be formed, and then two options for further activity should be planned.

The first option involves any child who is suffering of psychological problems and requires psychological and pedagogical aid. In this case, preschool institution psychological-pedagogical specialists should develop corrective-development measures plan and anticipate the results of provided aid.

The second option consists of corrective plan implementation in the case of psychological problems detected for a child with somatic and psychosomatic disorders. In this case, an in-depth medical and psychological examination in the health care institution is necessary. The task of preschool educational institution is to organize explanatory work with parents for young patients' in-depth medical and psychological examination provision. Medical institution provides the opportunity to examine health of the child qualitatively (including young patients' somatic and psychosomatic states). Pediatrician, practical psychologist, neuropathologist, psychiatrist and other specialists take part in this activity. In-depth medical and psychological examination and surveys should be carried out by a group of these specialists, a corrective-restorative route of integrated work with a child should be developed in a medical institution.

3rd stage "Complex Activity":

Performers: educational institution practical psychologists, medical institution practical psychologists, doctors, young patients and their parents.

Task: correction-development activities plan (activity component) or correction-recovery route (complex component) implementation.

The active component should be carried out under children's educational institution conditions and should provide systemic correction-development influence for a child and obtained results monitoring. The comprehensive component involves the interaction between a pre-school educational institution workers and health care institution specialists that occurs in a "systemic circle" (Figure 1).

Figure 1. Complex aid measures "Systemic Circle" for young patients.
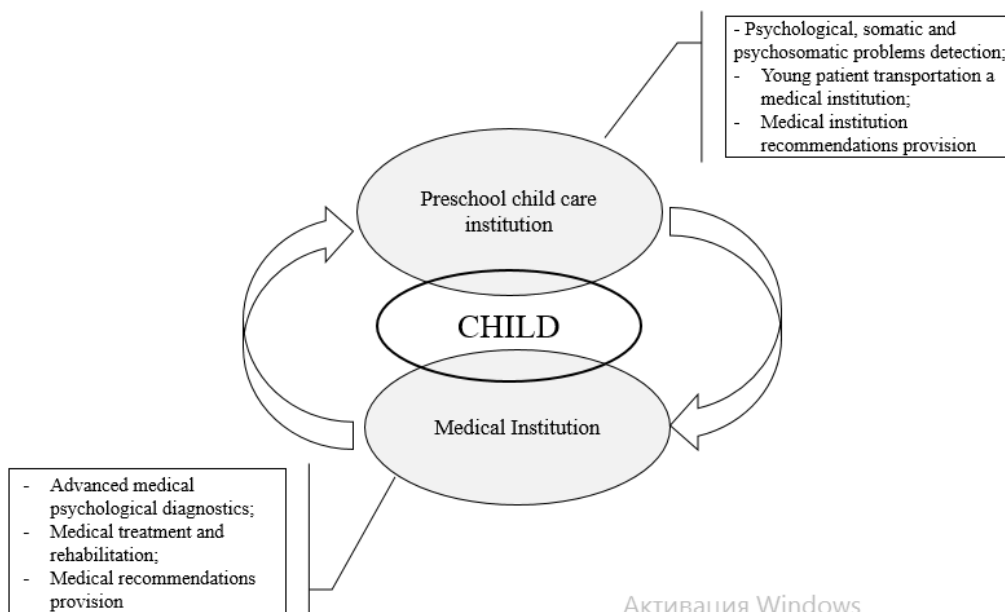
The immediate activity in this stage consists of a correction-recovery measures implementation directly at the medical institution. The aim is tore store physical, mental and social health of the child. This route includes medical, physiotherapeutic treatment, psychotherapeutic, psycho-corrective work with further rehabilitation. Upon completion of the corrective and restorative procedures, young patients continue rehabilitation procedures in the activity format in the conditions of the medical institution. This is the systematic interaction between educational institutions and health care.

Stage 4. «Summary and Recommendation»:

Performers: preschool institution education workers, practical psychologists, medical workers, medical institution practical psychologist.

Task: preliminary assessment of correction and development measures effectiveness; work analysis and recommendations formulation for further child support.

In this process, preschool institution teachers, practical psychologists, medical workers and medical institution practical psychologist should take part in discussing the results of the work performed. They should formulate recommendations for the further aid to the young patients, as well as assign tasks in accordance with the system functions, coordinate the content, means, forms of medical, psychological and pedagogical activity.

5th stage "Recreational and preventive":

Performers: health institution and preschool educational institution workers.

Objective: to strengthen the child's resource potential.

At this stage, the child attends some health institution or health facility within the pre-school educational institution. All activity should be focused on emotional destabilization prevention, adaptation resources and mental capabilities strengthening, psychological well-being provision.

The technology of medical-psychological and pedagogical assistance to children who are in a socio-psychological stress includes corrective-development and correctional-restoration measures, which are integrated into the work of both medical institutions and pre-school educational institutions.

6. Conclusions

1. The results of psychodiagnostic prophylactic measures, conducted in various pre-school educational institutions, showed high levels of anxiety (54.4%), impulsiveness (37.8%), aggression (32.2%), low self-esteem (18.9%), need for protection (43, 9%). The fear of war (48.9%), which is not natural for the patients of this age category, has been diagnosed for the first time ever. In addition, more than half of the young respondents suffer of polygamy phobias (102 children - 56.7%). The presented data emphasize the relevance of the organization of comprehensive medical and psychological assistance.

2. The organization of medical and psychological assistance to children living in conditions of socio-psychological stress is possible only in case of proposed medical-psychological and pedagogical technology implementation, which closely interconnected with interaction between pre-school education specialists and rehabilitation and diagnostic medicine institution workers. The integration processes according to the proposed technology are dictated by time. This technology is very promising for quality child care system provision.

3. Timely psychodiagnostic measures allow us to determine the presence of young patients' problems of a psychological nature. In addition, it provides us with the opportunity to prevent young patients' mental and somatic diseases development.

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THE LONGITUDINAL ASSOCIATIONS BETWEEN DEPRESSIVE DISORDERS AND CHRONIC PAIN

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Abstract

Major depressive disorder and low back pain are leading causes of disability according to the Global Burden of Disease study. Depressive conditions (major depressive disorder and dysthymic disorder) and chronic back pain frequently co-occur, and each condition may be a risk factor for the development of the other condition. This study used longitudinal data from a stratified population-based sample in the United States to examine the likelihood of developing incident cases of each condition, given the a priori presence of the other condition. The baseline wave of the National Comorbidity Survey was conducted in 1990-1992, and 5001 participants were re-interviewed ten years later. Preliminary analyses found that, after accounting for the effects of sociodemographic variables (age, gender, race/ethnicity, and educational background), the odds of a new major depressive disorder 10 years later at the re-interview were not greater among those with chronic back pain at the baseline interview, but the odds of a new dysthymic disorder were doubled among those with pre-existing chronic back pain, compared to those without chronic back pain at the baseline survey. The odds of new chronic back pain at the re-interview were significantly greater among those with baseline major depressive disorder (1.5 times greater) or dysthymic disorder (1.6 times greater) than among those without these depressive conditions at the baseline survey. These results suggest that depression and chronic pain are associated with increased risk for the development of chronic pain and depression, respectively, with chronic depressive conditions being somewhat more associated with chronic pain than major depressive disorder. These findings underscore the need for timely screening, evaluation, and treatment for depressive disorders, in order to mitigate the disabling effects of living with both chronic pain and depression.

Keywords: Chronic pain, depression, longitudinal.

THE JOINT EFFECT OF DIFFERENT NATURE FACTORS ON THE THERAPEUTIC BEHAVIOUR OF PATIENTS AFTER CABG

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Abstract

Introduction. The patients' behavior in the therapy process, especially their adherence to treatment, has a major impact on the treatment outcomes. The study of the factors that contribute to favorable ways of conduct will help improving the efficiency of patients' rehabilitation.
Aim. The aim of the research was to reveal some of the factors that may be related to patients' with CHD behaviour in the therapy process, adherence to treatment in particular. Thereby two groups of patients after CABG were studied: adherent (n=53) and non-adherent to therapy (n=50).
Methods: a detailed study of the patients' medical records and the results of medical examinations, a detailed study of patients' biography, their social status and so on, and several psychological questionnaires, the Lazarus and Folkman Ways of Coping Questionnaire, adapted and standardized by Vasserman et al. (2009) among them.
Results. As a result of the study, a number of factors significantly associated with patients' adherence to therapy were identified, including biological, psychosocial, and psychological factors. It was found that the duration of CHD by the time of surgery is a factor which significantly differs two groups of patients (χ^2= 17,018; $p<0,001$), patients with a longer duration of CHD (more than 6 years) had a better adherence to treatment. Among the psychosocial factors that were studied, the patients' motivation to continue working after the surgery due to the desire to self-actualization (χ^2= 4,719; $p<0,05$) was found to be a factor preventing the patient from violating the therapeutic regimen. It was found that adherent to therapy patients show higher values on the scales related to the "self-controlling" (F=16,15; $p<0,001$) and "positive reappraisal" (F=27,82; $p<0,001$) ways of coping.
Conclusion. According to the data obtained, it is essential to consider that a unique combination of various factors – medical, socioeconomic and psychological among them – determines the behaviour of patients after CABG in the therapy process, including their adherence to treatment.

Keywords: Clinical psychology, adherence to treatment, cardiology.

1. Introduction

The life of mankind has changed for the better due to the development of medicine, for example many virulent diseases were defeated in the last centuries. However, new ones came to replace them, the so called "diseases of civilization" which are tightly connected to adverse factors of anthropogenically altered environment (industrialization, urbanization, and so on).

Nowadays, among the "diseases of civilization" cardiovascular diseases (CVD) present a serious problem for the population worldwide. In its turn, the highest rates of mortality among CVD are for coronary heart disease (CHD). In 2016, the rate of death from CHD in the Russian Federation amounted to 396.273 people – 324,5 persons per 100.000 of the population (Federal State Statistics Service [FSSS], 2017). For the first 10 months of 2017 this indicator decreased by about 4%, but in the absolute value the figures are still alarming (FSSS, 2017).

In spite of the use of advanced methods in cardiac surgery, which are very effective in treating CHD (Bockeria, Gudkova, & Stupakov, 2010) and lead to an improvement in the long-term prognosis and quality of life of patients (Bockeria, Alshibaya, Bendeliani, Nikonov, & Krymov, 2012), the coronary artery bypass graft surgery (CABG) does not result in a complete cure among patients with CHD (Panov et al., 2007). In view of this issue, the postoperative period plays a crucial role. However, the rehabilitation process and the following supportive treatment have the status of an important problem in medical practice because the actions of a non-adherent patient may provoke disease relapses. Thus the patient's role becomes more significant; now he/she is responsible for the results of the treatment.

Unfortunately the problem of adherence to treatment is not always taken into account by the specialists although its importance was mentioned by World Health Organization (WHO, 2003). It is worth mentioning that low adherence to treatment is known to be a risk factor especially for heart diseases (Ho, Magid, Masoudi, McClure, & Rumsfeld, 2006).

Great number of empirical observations, supported by prospective cohort studies, have made it possible to establish the effect of more than 800 individual factors on adherence to treatment (Kardas, Lewek, & Matyjaszczyk, 2013). Nevertheless the mentioned problem of a low level of adherence to treatment is not still resolved.

Presenting the results of a comprehensive analysis of the reasons for patients' non-adherence to medical recommendations, the WHO concludes that none of the factors reliably and unambiguously determine adherence to treatment (WHO, 2003). It is also important to emphasize that different combinations of factors can mutually strengthen or weaken the influence on adherence, but a review of recent researches revealed the absence of systematic studies of interaction and interference of these factors (Jin, Sklar, Min Sen Oh, & Chuen, 2008). Thereby it is necessary to study and reveal the complex of diverse factors which exerts integrated influence on patient's behaviour, his/her disease perception and adaptation to it, attitude towards healthcare professionals.

2. Research

The mentioned problem of adherence to therapy in patients with CHD after CABG defined the need of a complex psychological investigation that included finding out the factors that affect the degree of adherence to treatment. For this, socio-demographic, biomedical, psychological and other characteristics of patients were studied.

2.1. Objectives

The aim of the research was to reveal some of the factors of different nature that may be related to patients' with CHD behaviour in the therapy and rehabilitation process, adherence to treatment in particular. A complex interdisciplinary research is being conducted at the Federal Almazov North-West Medical Research Centre (Saint-Petersburg, Russian Federation), which aims to define the relationship between the degree of adherence to treatment after CABG and various characteristics (biological, social, psychological) of patients with CHD.

2.2. Material and methods

To achieve the described above aims two groups of patients after CABG were studied: adherent (n=53) and non-adherent to therapy (n=50). Only those patients who did not have severe postoperative complications or mental disorders, and expressed their informed consent to participate in the research were included in the study. The gender distribution was as follows: 85 of them men and 18 women; the mean age in the sample was 60,14 years (SD = 8,95). All the patients were under cardiologists' observation.

Adherence to treatment was assessed not earlier than three months after CABG to ensure patients' return to their usual way of life and habits. In this study, the assessment of patients' adherence to treatment was performed by an expert method, jointly by cardiologists from the Department of cardiac rehabilitation and a clinical psychologist, taking into account a whole range of patient's behavioral aspects: taking medications, keeping a diet and rejection of harmful habits such as smoking and alcohol consumption, monitoring blood pressure and regularity of medical check-ups. Those patients who regularly implement medical recommendations on medication and non-pharmacological treatment were considered to have high rates of adherence to therapy; those who failed – low rates of adherence.

The research was conducted by a detailed study of patients' medical records, by a structured interview for patients which consists in a range of questions (grouped into clinical and physiological characteristics, socioeconomic, psychological and other sections), and psychometric techniques. This paper presents the results obtained by using the R. Lazarus and S. Folkman Ways of Coping Questionnaire, which is used for a differentiated assessment of the leading trends in the individual's coping.

3. Results and discussion

A number of factors significantly associated with patients' adherence to therapy, including biological, psychosocial, and psychological factors, were identified as the result of the study and are presented below.

3.1. Biological factors

A detailed study of patients' medical records and the results of their medical examinations allowed to obtain data on the severity of patients' condition, the durability and the severity of the CHD at the time of the CABG, the presence of surgery related complications and concomitant diseases, etc.

It was found that only one of the mentioned aspects was statistically significant in terms of adherence to treatment in the studied contingent of patients. Patients with low and high rates of adherence to treatment significantly differ by the duration of CHD by the time of surgery (χ^2= 17,018; p<0,001) (Table 1).

Table 1. Distribution of patients after CABG on account of the duration of their disease

Duration of the CHD	Patients with low adherence to treatment		Patients with high adherence to treatment		p
	N	%	N	%	
< 1 year	17	34,00	3	5,66	p<0,001
1-3 years	10	20,00	7	13,21	–
3-6 years	10	20,00	14	26,42	–
> 6 years	13	26,0	29	54,71	p<0,001
χ^2= 17,018					

According to the data presented in the table, we can conclude that those patients who showed a longer duration of CHD (more than 6 years) by the time of the CABG had had a better adherence to treatment, while patients with a shorter duration of the disease showed lower adherence to treatment. This finding may be associated with the patients' successful adaptation to their condition and disease, with availability of enough time to develop new habits and adjust to a new lifestyle and the formation of new mindsets and values.

3.2. Psychosocial factors

A careful study of patients' biography and their social status allowed to obtain data on patients' marital status, educational background, employment, income level, and so on.

Wherein it was found that the patients' employment, in particular the degree of their satisfaction with the job and the motivation to continue work after surgery due to the desire to self-actualization, self-fulfilling (χ^2= 4,719; p<0,05) is significantly associated with adherence to treatment after CABG. A positive motivation to continue working after the surgery was found to be a factor preventing the patient from violating the therapeutic regimen.

3.3. Psychological factors

Patients' psychological characteristics, such as their personality, beliefs and cognitive attitudes, or their coping behavior, make an important contribution to the effectiveness of the administered treatment by influencing the behavior of patients in the therapy and rehabilitation process. Thus, the analysis of factors that determine patients' with CHD adherence to treatment would be incomplete without taking into account the abovementioned characteristics.

At the present, numerous studies are being carried out to identify and describe the psychological factors that determine the level of adherence to treatment among patients suffering from CVD. Personality features, the attitude towards the disease, patients' beliefs were found to be significantly associated with adherence to treatment on the same cohort of patients (Iakovleva, 2016a; Iakovleva, 2016b).

Table 2. Average scores of two groups of patients on the scales of coping strategies

Strategies of coping (the R. Lazarus and S. Folkman Ways of Coping Questionnaire)	Patients		Analysis of variance	
	with low adherence to treatment M (DT)	with high adherence to treatment M (DT)	F	p
Confrontive coping	46.52 (1.30)	45.94 (1.69)	0.074	0.786
Distancing	50.87 (1.25)	49.70 (1.34)	0.405	0.526
Self-controlling	45.89 (1.32)	53.38 (1.31)	16.150	**0.000**
Seeking social support	48.07 (1.47)	50.14 (1.30)	1.127	0.291
Accepting responsibility	50.04 (1.25)	51.10 (1.29)	0.346	0.558
Escape-Avoidance	48.54 (1.26)	44.08 (1.45)	5.288	0.024
Planful problem-solving	48.87 (1.33)	51.24 (1.44)	1.451	0.231
Positive reappraisal	41.02 (1.06)	49.94 (1.30)	27.823	**0.000**

The study of patients' coping behaviour showed significant differences between patients with low and high adherence to treatment after CABG (Table 2). It was found that non-adherent to therapy patients show lower values on the scales related to the "self-controlling" (F=16,15; $p<0,001$) and "positive reappraisal" (F=27,82; $p<0,001$) ways of coping. This data suggests that patients with higher adherence to treatment more frequently try to overcome negative experiences by a high behavior control and suppression and containment of their emotions, by rethinking the past in a positive way and using it as a mean for personal growth.

4. Conclusions

Never has so much attention been paid by professionals to CVD as it is at present. At the same time, the rehabilitation process after CABG heavily depends on the patients' adherence to treatment levels. At the present moment, patients' suffering from cardiovascular diseases features which determine their adherence or non-adherence to treatment, are not clearly defined.

The findings indicate that a complex of factors of different nature –biological, psychosocial, psychological– have to be taken into account when identifying patients' reaction to a chronical disease and their behaviour in the therapy process, including surgery and the rehabilitation period. Such aspects as the duration of the disease, patients' motivation to continue an active labor life, their reasonable assessment of the disease and positive ways of coping, are factors that can be used to predict patients' good adherence to treatment after CABG.

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INTERSECTORAL-ACTIONS IN MENTAL HEALTH CARE FOR CHILDREN AND ADOLESCENTS

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Abstract

The 90's witnessed a dramatic change in the perceiving of the child and the adolescent in Brazil. This is evident from the promulgation of the Child and the Adolescent Statute (SCA), a specific law to protect children and adolescents and ensure their social development. Historically, the mental-health-care for children and adolescents (MHCCA) was an exclusive private or philanthropic practice, with the relationship based on a principle of total dependency rather than autonomy. After 2003, as part of the Brazilian Psychiatric Reform, the Federal Health Department starts issuing orientations and taking effective actions to launch a net of mental health care focused on children and adolescents, based on a communitarian and intersectoral approach. Such an intersectoral approach of the MHCCA is key, owing to the fact that the treatment of the youth requires a mix of different (and specific) knowledge (such as health, education and social protection). By the application of quanti-qualitative methods, this research aims to investigate how intersectoral actions works in MHCCA. The research uses an electronic questionnaire for the data collection, consisting of closed and open questions. Invitations were sent by e-mail and published on social media websites in order to reach professionals working in the application of public services in Brazil. The closed questions are the following: federal unit state; type of city (capital or country town); work location; line of work; has the city a Children and Youth Psychosocial Care Center (CYPCC); which professionals are involved in these actions (can we call these intersectoral?). These questions should cast light on important aspects such as: (i) the type of services that appears more frequently in intersectoral-actions; (ii) the percentage of specific actions in MHCCA; (iii) the amount of intersectoral actions in cities with CYPCC compared to the ones lacking it; (iv) the differences in intersectoral actions between state-capitals and towns; and (v) the sectors with more effective participation in these actions. Finally, the open questions make it possible to go even further and investigate the characteristics of these intersectoral actions and execution. Morever, it may potentially reveal what these professionals understand by intersectoral actions. By creating a profile of intersectoral actions in MHCCA, this research aims to contribute for the improvement of health policies focused on young people, allowing the refinement of techniques to meet their specific needs in an inclusive way.

Keywords: Intersectoral actions, mental health, adolescent, child.

1. Intersectoral - Actions in mental health care for children and adolescents

The actions and Public Policies for children and adolescents' mental health in Brazil have been historically overlooked (Falavina, Cerqueira, 2008). The mental-health-care for children and adolescents (MHCCA) was traditionally an exclusive private or philanthropic practice, with the relationship based on a principle of total dependency based on educators, shelters, special schools, institutes for the mentally handicapped and autistic clinics, instead of encouraging autonomy. (Brazil, 2005b; Falavina, Cerqueira, 2008; Cavalcante, Jorge, Santos, 2012).

Since 2003 though, the Ministry of Health applies guidelines aiming to create a network of mental health assistance for children and adolescents, based on principles of community and in accordance with the guidelines of the Psychiatric Reform. Only then, intersectorial actions became a premise for the children and adolescents care.

The idea of Intersectoriality involves the coordination of actions from a variety of sectors in social sciences, looking for more effective results in issues that require an interdisciplinary approach. The intersectoriality requires that services, institutions and people from a delimited region, cooperate in combined actions aiming at improving the quality of life for those who need or looks for assistance or medical care. The intersectoral network must be a field for raising partnerships between different sectors. According to Soares (2010), the network is a new way of management for public policies and these must be shaped in a horizontal and plural way.

Regarding to the child and adolescent, the ministerial document, "Caminhos para uma política de saúde mental infantojuvenil" (Brasil, 2005a, p.6), points out that "any action on the mental health of children and the youth must prescribe partnerships among other public policies such as social action, education, culture, human rights and justice."

It is important to emphasize that, although the psychological suffering of these children and adolescents requires an intersectoral care, in dissimulated situations, a specific health care facility, headed to these fettle, would be necessary for a effective treatment, such for psychic illness issues, and situations triggered by the abuse of psychoactive substances.

Hence arises the need for a specific service - the Psychosocial Centers for Children and Youth Care, the Capsi - which prime responsibility lay on the care of the children and the youth, so that they won't be excluded from other public services policies. The Capsi were createdto lead the role articulation of the incipient network services in MHCCA [Mental Health in Children and Adolescents], being"the first response from the public health system to face this issues" (Couto, 2012, p.51). Therefore, the availability of these intitutions in a region indicates intersectoral actions for the MHCCA.

There are at least two facts hampering the implementation of intersectoral actions for the MHCCA. Firstly: the traditional treatment of these by philanthropic institutions that adopt isolation and freedom constraints. These practices last until nowadays (Monteiro, Ribeiro, Bastos, 2007) and do not promote any incentives for open dialogues neither partnerships. The second problem refers to the fact that most public policies have not been based on the intersectoral guideline (Monnerat and Souza, 2011).

From the above, there are many open questions on the intersectoriality for the MHCCA. In this paper, we look at if these actions are being systematically implemented in Brazil and their inadequacies.

2. Objective

To investigate the particularities of intersectoral actions for the MHCCA in Brazil.

3. Methodology

A quantitative methodology is adopted. Data was collected via an electronic questionnaire which gathered response from professionals working in the application of public services.

We use a statistical survey with a non-probabilistic sampling, since it was obtained by means of accessibility. (Gil, 2008). A single criterion was adopted to define the universe of the sample, with the questionnaire targetted at all civil servents and general workers in partnership with them. The period of data collection was from May 2017 until December 2017, reaching a total of 266 responses, from which two were discarded for they are not from the target audience of the research; totaling 264 analyzed questionnaires.

A statistician is currently assessing and refining the data since January 2018 and after that, in March 2018, we will pass on to the discussion and analysis of the results of the research- as well as the thesis text that originated this paper - are programmed to last the whole year.

4. Data description

While the analysis is still in process, we are going to present a little sketch of the complete work, with the parts that have already been analyzed. The focus will be: a) the most representative service sectors in the sample; b) the number of answers by professionals that adopt intersectoral actions in their services; c) the number of responses indicating the existence of CAPSi in the municipality in which the professionals works; d) the existence of specific actions aimed at children and adolescents suffering from metal diseases, whether or not there are a CAPSi in their region; e) the number of professionals and sectors that participate in intersectoral actions according to their respective specialties and particularities.

Item A refers to the following question: "In which service do you work?". For the analysis purpose we grouped the services into macro-sectors for which we verified the predominance of Health (116 answers) and Education (95), other answers were from Social Assistance, Justice and others.

For item B, it was asked if the service in which the person works performs intersectoral actions. The answers were: 148 answered yes, and 116 no. For item C, we asked if the municipality where the professional works is supported by a CAPSi, and 144 were affirmative and 120 negative.

For item D, we got 144 who answered positively for CAPSi support in municipality, from which 55 affirmed that there are specific intersectorial action for the public of children's mental health (approximately 38% of the positive answers). Whereas, from the 120 who answered that they are not supported by a Capsi in the municipality, 25 confirmed that there are specific intersectorial actions for children and adolescents suffering from psychic suffering (corresponding to 20% of those who said that there are no Capsi in the municipality). It may be noted that when the municipality is supported by a Capsi service, it would also present more specific intersectoral actions to children and adolescents.

Ultimately, regarding to item E, the answers present the professionals most engaged in developing intersectoral actions, namely: psychologists (96), social workers (89) and nurses (59). As to the sectors engaged in intersectoral actions, we noticed the predominance of Health (98), Social Assistance (84), Tutelary Council (68) and Education (55).

5. Final considerations

The preliminary results indicate that the intersectoral actions for **the MHCCA** are composed of varied services. However, there is a noticeable concentration of some sectors in these actions, a fact that shows that the level of engagement with intersectoral actions vary among sectors. For example, there are a great number of responses from Health Sector and just a few from Justice. Furthermore, we noticed that these actions are more frequently adopted by professionals with a degree in Humanities and Social Sciences, so that a social formation suggests that professionals are more sensible in actions of intersectoral character. Finally, the data points out to a decadence of the philanthropic services, since they have the smallest participation of the questionnaire answers.

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MINOR BRAIN DAMAGE AND SOMATIC COMPLAINTS ACCOMPANIED BY EXCESSIVE LONG-TERM AMNESIA: PSYCHOLOGICAL CAUSE?

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Abstract

Memory problems belong to the most frequent concomitants of brain damage, but are observed as well in patients with psychiatric diseases. In general, there is a dissociation in that way that major focal brain damage is more closely associated with anterograde memory impairments, while psychiatric disease conditions affect retrograde memory with greater likelihood. We here report patients with opposite characteristics: Questionable or minor brain damage accompanied by excessive retrograde amnesia, but preserved anterograde memory abilities, and questionable or minor brain damage accompanied by long-lasting anterograde amnesia only. In both conditions, amnesia is selective, affecting principally only one temporal aspect of long term memory, and secondly only (or mainly) autobiographical memory. Fifteen patients with a mean age of 38 years and a mean education of 10 years were studied. All of them were tested after their amnesia had persisted between months and several years. A broad battery of neuropsychological tests was applied. Results showed that adverse life conditions, affecting body and brain, can – especially if they occur suddenly and unexpectedly – lead to severe and chronic forms of amnesia in the autobiographical domain, a disease usually named dissociative amnesia.

Keywords: Dissociative amnesia, retrograde memory, mild traumatic brain injury, autobiographical memory.

1. Introduction

Memory problems belong to the most frequent concomitants of brain damage, but are observed as well in patients with psychiatric diseases. In general, there is a dissociation in that way that major focal brain damage is more closely associated with anterograde memory impairments (Markowitsch, 2008; Markowitsch & Staniloiu, 2012), while psychiatric disease conditions affect retrograde memory with greater likelihood (Markowitsch & Staniloiu, 2016; Staniloiu & Markowitsch, 2014a, 2015) (Fig. 1). In general, in retrograde amnesia only or mainly one long-term memory system is affected, namely the episodic-autobiographical memory system. This constitutes the ontogenetically and phylogenetically last developing memory and is – according to Endel Tulving (2005) most likely existing only in human beings. According to Tulving's definition it is the conjunction of subjective time, autonoetic consciousness and the experiencing self. This definition implies we recall our experiences while being self-conscious ("autonoetic"), we recall them based on our time scale, and we perceive us, how we were interacting with the social and biological environment. Furthermore, episodic-autobiographical memory is usually emotionally laden (Markowitsch, 2013). Therefore it requires a synchronous actions of affect-processing (e.g., amygdala) and fact-processing regions (e.g., hippocampus) in the brain. All this makes this memory system easily vulnerable. The other memory systems on the other hand are more robust and exist also in animals. Among them, the semantic memory system which is relevant for neutral fact-processing, and the procedural memory system, which deals with motor-behavior based skills (e.g., driving a car, playing piano). In anterograde amnesia, however, also the semantic memory system may be impaired.

Figure 1. After brain injury or a psycho-traumatic event memory may be impaired with respect to the remembering of old information (which was stored prior to the injury or the event), or with respect to the long-term acquisition of new information with which the individual was confronted after the event or injury. The flash symbolizes the event or injury.
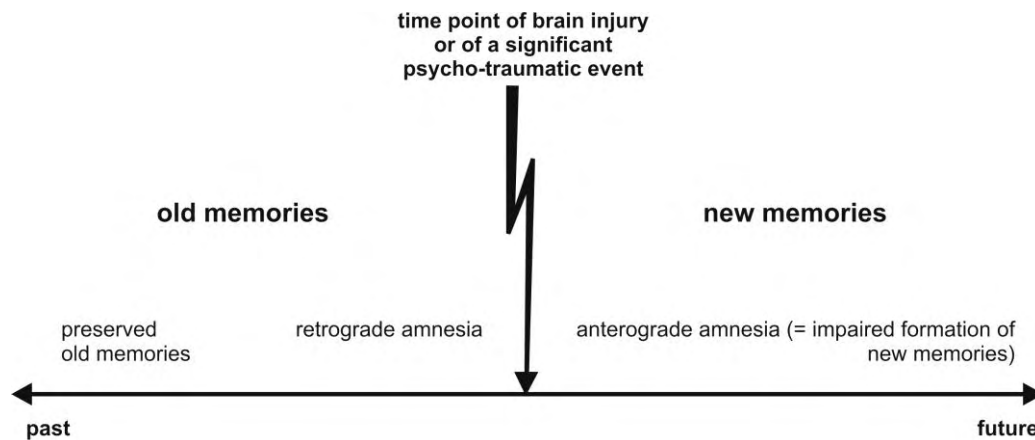
Neuropsychiatry shows that many disease conditions affecting cognition and in particular memory, are caused by a mixture of mental disturbances and minor brain damage (Chen, Huane, & Constantini, 2013; Hallett, Stone, & Carson, 2016; Taber, Hurley, & Yudofsky, 2010). It therefore has been postulated that minor brain damage or concussions as in whiplash injury may trigger mechanisms, leading to major cognitive dysfunctions on the behavioral level (e.g., Markowitsch, Kessler, Kalbe, & Herholz, 1999; Pommerenke et al., 2012; Staniloiu & Markowitsch, 2012, 2014a).

2. Objective

The aim of the present study was to investigate relations between minor brain damage and "out-of-proportion" impairments in cognitive, particularly in memory functions.

3. Methods

From a larger sample of patients investigated by us, we selected those manifesting out-of-proportion impairments with their memory, as described by them and their relatives. These were 15 patients between age 21 and 54 (mean age: 37.6 years; 9 male). Their education ranged from 6 to 17 years with a mean of 10 years. Ten of them had minor head (or brain) trauma, one had possible minor head injury, one had a possible brain infarct, one a brain tumor, and two had surgery outside of the brain. All of them were tested after their amnesia had persisted between months and several years. All of them had been hospitalized and had received a diagnosis – most frequently that of dissociative amnesia. A broad battery of neuropsychological tests was given to all of them. This included tests of intelligence, attention and concentration, executive functions, anterograde and retrograde verbal and visual memory, problem solving abilities, tests on cognitive flexibility, on emotional reactivity and theory of mind functions. Tests on confabulatory tendencies and symptom-validity tests were given as well. Furthermore questionnaires on personality dimensions and psychiatric disease conditions were applied.

4. Results

Thirteen patients had retrograde amnesia in the autobiographical domain and two were anterogradely amnesic. For the two with anterograde amnesia this was continuing for one patient since 9 years and for the other one since 23 years. For the patients with retrograde amnesia, this covered all of their past life in 12 of them and the total childhood and parts of the rest of her life in the 13th patient.

Of particular interest were the two patients with anterograde amnesia: One was a woman who at the age of 27 had two whiplash injuries while driving her car. After the second injury she became unable to long-term store new information for more than about four hours. Furthermore, she became nearly deaf without a respective physical injury of her ears. She therefore needed to wear hearing aids for both ears. She manifested a very sharp boundary of her anterograde amnesia, knowing a large number of distinct personal and public events up to the month of her second injury, but not one thereafter. Her deficits persist now for roughly two decades. The other patient was a man of 51 year old at the onset of his

anterograde amnesia. He as well had two incidents of the same kind which were very stressful and disturbing to him: He bumped with his head against the door of his car when he wanted to pick up cigarette packages which he should have put into cigarette machines (his job). At the second occasion he became unconscious and had head injuries so that he received repeated brain imaging (suspicion of minor traumatic brain injury). As the other anterogradely amnesic patient, his capacity to store new memories long term ended usually after about four hours. (For both patients a high and continuous memory load resulted in a shortened period of remembering, sometimes less than one hour.) The second patient was followed-up for ten years.

Several of the retrogradely amnesic patients had their head injuries while performing their job; most of them while driving a car and getting into an accident. One patient was working on an iron piece which slipped and was thrown at the patient's forehead and one patient fell from a ladder. In all patients any brain injury was at least questionable. In all patients the amnesia persisted as long as the patient was followed-up; follow-up periods were months to years.

A young patient of 29 years had a medulloblastoma in the fourth ventricle which was successfully resected. However, immediately thereafter he lost all his personal memories and even some of his semantic memories. He did not recognize family members and friends. He also did not know what to do with a fishing rob, though he had been a fisher prior to his surgery. He had been an orphan, was diagnosed with testicular carcinoma at age 26 and received surgery for this. As a child he already had had several diseases of his scrotum.

5. Discussion

Our results show that diverse somatic conditions can lead to enduring amnesic conditions. Patients with usually minor somatic complaints, but a sudden onset of symptoms, may develop a severe amnesic condition. This has been named *dissociative amnesia* (Staniloiu & Markowitsch, 2014a), *psychogenic amnesia* (Staniloiu, Markowitsch, & Brand, 2010), *functional amnesia* (Markowitsch & Staniloiu, 2016), or *mnestic block syndrome* (Markowitsch et al., 1999; Markowitsch, 2002). In former times, also the label *hysteria* was used (Breuer & Freud, 1895; Janet, 1907; Markowitsch & Staniloiu, 2017). Especially the expression *mnestic block syndrome* indicates that it is assumed that in the retrograde condition memories may not be permanently lost, but might recover. Indeed, cases with recovery after treatment (Markowitsch, Kessler, Van der Ven, Weber-Luxenburger, & Heiss, 1998) as well as with spontaneous recovery (Lucchelli, Muggia, & Spinnler, 1995; Syz, 1937) have been reported.

Interestingly, only less than a dozen patients with anterograde dissociative amnesia can be found in the literature (see the cases listed in Table 2 of Staniloiu & Markowitsch, 2014a). Usually, this condition is related to being effortless and without ambitions (Kessler et al., 1997). Nevertheless, it is of special interest that both of our patients with anterograde dissociative amnesia had a memory span of about four hours. The same memory span has been reported in a third patient (Smith et al., 2010). It is unknown whether this time period is related to conscious memory consolidation, as was suggested by Markowitsch, Kessler, Kalbe and Herholz (1999).

It is assumed that dissociative conditions occur especially in patients with a more labile, suggestible personality condition and in patients who did not develop sufficient coping strategies against stressful or psychotraumatic situations (Dalenberg et al., 2012; Spiegel et al., 2011, 2013; Staniloiu & Markowitsch, 2014a, 2015). It is assumed that especially stressful situations early in life lead to a hypersensitivity for excitatory neurotransmitters and that one or more subsequent stressful conditions in later life induce a dissociative condition, if the individuals have not yet developed sufficient coping strategies protecting them against developing dissociative amnesia or another dissociative condition (Markowitsch, 2000). Indeed, a huge amount of literature exists, pointing to the adverse effects of long term and severe stress conditions (Bremner, 2005; Bremner, Elzinga, Schmahl, & Vermetten, 2008; McEwen, 2000; Lupien, McEwen, Gunnar, & Heim, 2009; Markowitsch & Staniloiu, 2012; Sapolsky, 1996a, b, 2000), especially if they start in childhood and youth (Bettelheim, 1950).

6. Conclusions

Patient data strongly indicate that adverse life conditions, affecting body and brain, can – especially if they occur suddenly and unexpectedly – lead to severe and chronic forms of amnesia in the autobiographical domain. This form of amnesia is found especially in patients who experienced two similar strongly negative life events and led to the formulation of the 'two-hit hypothesis' (Roberts, Gluck, Smith, & Morrison, 2013; Staniloiu & Markowitsch, 2014a; Markowitsch & Staniloiu, 2016). This hypothesis postulates an additive or synergistic effect with respect to psychological or biological events which are central for the development and persistence of dissociative amnesia. Repeated or

unexpected misfortunes can in psychicologically labile and sensitive individuals lead to an allostatic charging (Staniloiu & Markowitsch, 2014b) and to a defense reaction which manifests itself as dissociative amnesia. The dissociative reaction is maintained by further stress which occurs when the patient tries to consciously access his past experiences (Markowitsch, 2002).

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AFFECTIVE STYLES AND DIFFICULTIES IN EMOTION REGULATION

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Abstract

Emotion regulation is an area that has garnered tremendous interest among psychological researchers in the last decade. Emotion regulation refers to "the process by which people influence which emotions they have, when they have them, and how they experience and express these emotions". Research studies substantiate that emotion regulation plays a pivotal role in an individual's mental health, and various aspects of his daily functioning including the marital, occupational and social settings. Emotion regulation is closely linked to 'affective style', a typical tendency each individual displays, to use some emotion regulatory strategies over others. In essence, it is an inter - individual difference variable that refers to sensitivity to emotion, as well as tendencies for regulating emotions. The research literature suggests that some affective styles are beneficial in regulating the experience and expression of emotions in healthy ways that enhance the attainment of goals, whereas other strategies seem to have counterproductive effects.

The present study explores the relationships among affective states and specific difficulties in emotion regulation. Research questions included determining the relationships between three affective styles (concealing, tolerating and adjusting) and difficulties in emotion regulation (awareness, quality, goals, impulse, non-acceptance and strategies). Two self-report measures – The Affective Style Questionnaire (Hoffman & Kashdan, 2010) and The Difficulties in Emotion Regulation Scale - Short Form (DERS-SF - Kaufman, Xia, Fosco, Yaptangco, Skidmore, & Crowell, 2016) were given to a sample of 196 individuals in the 17-30 age range. Step-wise linear regression analyses indicated that difficulties engaging in goal directed behavior, a lack of access to emotion regulation strategies, and a lack of clarity in emotional experiences are significant predictors of impulse control difficulties, the biggest contributor being difficulties engaging in goal directed activity. Impulse control difficulty was found to be positively correlated with non-acceptance of emotional responses. With regard to affective styles, an adjusting affective style was found to significantly predict access to emotion regulation strategies, and a tolerating affective style was negatively correlated with a lack of access to emotion regulation strategies, as well as a lack of clarity in emotions.

The findings of the study have important implications in understanding psychopathology, as well as in planning intervention for vulnerable populations.

Keywords: Emotion regulation, affective style.

1. Introduction

Emotion regulation is an area that has garnered tremendous interest among psychological researchers in the last decade. Emotion regulation refers to "the process by which people influence which emotions they have, when they have them, and how they experience and express these emotions" (Gross, 1998). Several studies substantiate that emotion regulation is linked to a variety of aspects of one's daily functioning. For instance, a diverse use of emotion regulation strategies has been found to be beneficial to one's overall life satisfaction and wellbeing (Quoidbach, Berry, Hansenne, & Mikolajczakcd, 2010). Consequently, it is an essential component contributing to satisfaction in marital relationships (Bloch, Haase & Levenson, 2014). Emotion regulation has been linked to employee stress and health as well as organizational wellbeing (Grandey, 2000). It is an important aspect of social adjustment and prosocial behavior (Eisenberg et. al., 2000). While emotion regulation plays an extremely important role in mental health, emotion dysregulation has been implicated in several forms of psychopathology such as personality disorders, schizophrenia, major depressive disorder, panic disorder, post-traumatic stress disorder, social anxiety, phobias, eating disorders, as well as autism, ADHD and intermittent explosive disorder in children.

An individual may use various strategies to modify how they experience emotions. These strategies also help to alter the course of emotion in terms of when and how they are expressed. Gross & John (2003) describe two commonly used emotion regulation strategies - cognitive reappraisal and suppression of emotional expression. Cognitive reappraisal is when one alters the way they think about a situation in order to minimize their unpleasant emotions or maximize positive emotional aspects. On the other hand, suppression of expression is when an emotional response has already occurred while the individual inhibits its expression.

While Gross (2003) provided a broad conceptual framework of emotion regulation, Gratz & Roemer (2004) conceptualize emotion regulation as involving specific processes such as the (a) awareness and understanding of emotions, (b) acceptance of emotions, (c) ability to control impulsive behaviors and act in line with desired goals when experiencing negative emotions, and (d) ability to use situationally appropriate emotion regulation strategies in a flexible way, in order to meet individual goals and situational demands. Gratz & Roemer point out that problems in one or more of these areas would indicate difficulties in emotion regulation.

Emotion regulation is closely linked to 'affective style', a typical tendency each individual displays, to use some emotion regulatory strategies over others. In essence, it is an inter - individual difference variable that refers to sensitivity to emotion, as well as tendencies for regulating emotions. Affective style may also be described as an emotional vulnerability owing to individual differences in one's temperament, personality and vulnerability to psychopathology (Davidson, 1998). Some affective styles are beneficial in regulating the experience and expression of emotions in healthy ways that enhance the attainment of goals, whereas other strategies seem to have counterproductive effects. Based on consistent pointers in the emotion literature, Hoffman & Kashdan (2010) developed a conceptual model for affective styles, consisting of three factors – concealing, tolerating and adjusting affective styles. Similar to Gross & John's (2003) 'suppression of emotional expression', the *concealing affective style* involves concealing and avoiding emotions when they occur. On the other hand, the *adjusting affective style* involves being able to use emotion related cues or information to balance how one feels, adapt to the context and solve problems effectively. Finally, the *tolerating affective style* reflects an ability to accept and endure emotional upheavals without resisting or suppressing them.

Research studies in this context show that rumination over negative emotional events prolongs the duration of angry and depressed affective states (Rusting & Nolen-Hoeksema, 1998). On the other hand, when individuals tend to accept emotional experiences without attempting to change or avoid them, they consequently show higher persistence in challenging situations and lower subjective distress (Hayes et. al., 2006).

The emotion regulation literature incorporating affective styles is minimal. However, existing research suggests that greater emotional awareness is associated with greater self-reported impulse control. Individual differences in emotional awareness have been found to predict recovery of positive mood and lessening of ruminative thoughts following a distressing stimulus (Salovey, Mayer, Golman, Turvey, & Palfai, 1995). Research also indicates that there is a strong human tendency to avoid painful emotions. From the experiential perspective, approach and tolerance of emotional experience is necessary, however, optimum emotional processing can only happen when there is an integration of cognition and affect, where it is ideally explored, reflected on, and made sense of (Greenberg, 2004).

Emotion regulation and affective styles have rarely been studied together, and the present study will throw light on the nature of the relationship between the two, as well as determine whether specific affective styles predispose one to emotion regulation difficulties, which can have important implications in understanding psychopathology, as well as planning intervention.

2. Objectives of the present study

The present study addresses gaps in the literature by investigating the relationships among affective styles and specific difficulties in emotion regulation. The study aims to –
a) Determine the relationships between three affective styles (concealing, tolerating and adjusting) and difficulties in emotion regulation (awareness, clarity, goals, impulse, non-acceptance and strategies).
b) Determine whether affective styles can predict difficulties in emotion regulation.
c) Determine whether there are significant gender differences in affective styles and difficulties in emotion regulation.

3. Method

Two self-report measures – The Affective Style Questionnaire (Hoffman & Kashdan, 2010) and The Difficulties in Emotion Regulation Scale - Short Form (DERS-SF - Kaufman, Xia, Fosco,

Yaptangco, Skidmore, & Crowell, 2016) were given to a sample of 196 individuals (91 males and 105 females), in the 17-30 age range, with a mean age of 22.64 years (SD = 3.26), in the city of Chennai, South India. A convenience sampling method was followed.

4. Results and discussion

4.1. Affective styles

Analyses to identify the correlates of an adjusting affective style, showed significant negative correlations with a lack of clarity in emotions (r = -.252, p < 0.001), impulse control difficulties (r = -.315, p < 0.001), difficulty engaging in goal directed behavior (r = -.357, p < 0.001) and a lack of access to emotion regulation strategies (r = -.516, p < 0.001). This indicates that individuals who are able to use emotion related information to lend greater balance and adapt to the emotional context not only have greater clarity in emotional experiences but are also able to use emotion regulation strategies with greater ease, engage effectively in goal directed behavior, and have a lower likelihood of having impulse control problems. Further, regression analysis revealed that an adjusting affective style significantly predicts and accounts for 26.6% of the variability in access to emotion regulatory strategies (R^2 = .266, F = 70.582, (1, 195), p < 0.001).

The tolerating affective style showed significant negative correlations with a lack of clarity in emotions (r = -.3.06, p < 0.001) and a lack of access to emotion regulation strategies (r = -.208, p < 0.01). However, unlike people with an adjusting affective style, this style shows no significant correlations with the ability to engage in goal directed behavior.

The concealing affective style did not show significant correlations with any of the difficulties in emotion regulation.

4.2. Difficulties in emotion regulation

The study also attempted to explore the relationships between the various difficulties in emotion regulation and identify whether problems in emotional experiences such as a lack of awareness or clarity can predict difficulties in the regulatory process itself. One particular variable – impulse control difficulties – seemed to significantly correlate with most other difficulties in emotion regulation. For instance, positive correlations emerged between impulse control difficulties and a lack of clarity of emotional experiences (r = .401, p < 0.001), non-acceptance of emotional responses (r = .472, p < 0.001), lack of access to regulatory strategies (r = .611, p < 0.001), and difficulty engaging in goal directed behavior (r = .623, p < 0.001).

A further step-wise regression analysis showed that difficulty engaging in goal directed behavior, lack of access to regulatory strategies, and a lack of clarity in emotional experiences are significant predictors of impulse control difficulties (R^2 = 0.50), with problems engaging in goal directed activity accounting for 38.8% of the variance, problems engaging in goal directed activity and lack of access to regulatory strategies cumulatively accounting for 48.3% of the variance, and problems engaging in goal directed activity, lack of access to regulatory strategies, and lack of clarity in emotional experiences cumulatively accounting for 50.2% of the variance in impulse control difficulties.

Table 1. Step-wise regression model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.623[a]	.388	.385	2.12811
2	.695[b]	.483	.478	1.96132
3	.709[c]	.502	.494	1.92966

Dependent Variable: Impulse control difficulties
a. Predictors: (Constant), Difficulties engaging in goal directed behavior
b. Predictors: (Constant), Difficulties engaging in goal directed behaviour, Lack of access to regulatory strategies
c. Predictors: (Constant), Difficulties engaging in goal directed behaviour, Lack of access to regulatory strategies, Lack of clarity in emotions

These results have important implications in understanding growing problems in young adults such as unhealthy impulsive eating, the abuse of substances, and self-harm behaviors. Schreiber, Grant, & Odlaug (2012) demonstrated a clear link between emotion regulation and impulsivity in the context of addictions. The study on 194 young adults found that those with greater emotion dysregulation

scored significantly higher on self-report measures of impulsivity. Overall, their study suggested that emotion regulation may be an important factor to consider when assessing individuals at a higher risk for developing an addiction. In another unique study, Tice, Bratslavsky, & Baumeister (2001) demonstrated that under everyday circumstances in which moods and emotional states can be changed, emotional distress made people increase their intake of unhealthy snacks. Participants typically responded to distress by eating more fattening, unhealthy foods because they expected to feel better after their impulsive eating. Findings of the current study imply that a lack of clarity in emotional experiences, a lack of access to regulatory strategies, as well as difficulties engaging in goal directed behavior could all be contributors to the general understanding of 'emotional distress', which leads people to indulge in impulsive behaviors.

4.3. Gender differences

T-tests to assess gender differences in affective styles and emotion regulation difficulties revealed that males have significantly better scores on the adjusting affective style (t = 2.008, p < 0.05). A study by McRae, Ochsner, Mauss, Gabrieli, & Gross (2008) lending support to this finding showed that although, neurally, men and women showed equal responsiveness to emotionally upsetting stimuli, men showed greater down-regulation of negative feelings than women. A possible explanation offered by the authors is that men are capable of using regulation with greater efficiency, or less effort, than women. Secondly, they point out that women may be indulging in the dual process of up-regulating positive emotion while attempting to downregulate negative emotion to a greater extent than men. In the context of the current study, this suggests that although men may have a more adjusting affective style towards upsetting events and are better at decreasing upsetting emotions, women may be more adept at increasing their positive emotions in an upsetting situation. Also, owing to the male gender role of being more action-oriented, they may also be more likely than women to adjust faster in order to engage in problem-solving in attempts to control or change the situation.

In addition, significant gender differences were found in lack of emotional awareness (t = -2.839, p < 0.005), with women displaying a greater lack of emotional awareness. This was a surprising finding, especially in the light of research evidence suggesting that women pay more attention to their feelings and tend to have greater clarity of emotions. However, a study by Croyle & Waltz (2002) which examined emotional awareness in couples' relationships indicated that women are more emotionally aware than men in response specifically to couples' situations, but not in response to general situations outside the relationship. This may imply that emotional awareness in women may be more situationally dependent rather than being a more stable characteristic. This finding could also be a result of cultural differences, which will need to be studied more in-depth.

No other significant gender differences were found with regard to affective styles or difficulties in emotion regulation.

5. Conclusions

The current study demonstrates that individuals who typically adopt an adjusting affective style not only have greater clarity in emotional experiences but are also likely to use emotion regulation strategies with greater ease, engage effectively in goal directed behavior, and have a lower likelihood of having impulse control problems. Moreover, an adjusting affective style significantly predicts one's access to emotion regulatory strategies. In comparison, those who tend to adopt a tolerating affective style have greater clarity of emotion and are likely to use emotion regulatory strategies effectively.

Difficulty engaging in goal directed behavior, lack of access to regulatory strategies, and a lack of clarity in emotional experiences emerged as significant predictors of impulse control difficulties, accounting for 50% of the variability. This has tremendous implications not just in understanding pathological conditions involving impulse control difficulties such as substance abuse, binge eating and self-harm, but also in understanding sub-clinical tendencies that may be present in the general population, especially in teenagers and young adults who are reporting a growing number of problems related to unhealthy eating, substance use, sexual indiscretions and other high-risk behaviors which may be a result of a lack of impulse control stemming from basic problems in emotion regulation. This finding also implies that interventions focusing on improving emotion regulatory processes in these vulnerable populations can be developed and implemented in psychotherapy, as well as in larger-scale prevention based initiatives with young adults.

It is widely believed that men and women differ in how they regulate their emotions. The current study found that women seem to have significantly more difficulties in awareness of emotions, and men have a significantly greater adjusting affective style as compared to women. Empirical studies in this area have been mixed, and further research is required, especially in the cultural context. A majority of research on gender differences has been carried out on Western individualistic cultures, however, there is

a need for research in collectivistic cultures like India, assuming that emotional processing is partly a function of gender roles determined by socio cultural influences.

Given the preliminary nature of this study in Chennai, South India, replication of the results with larger samples with greater geographical representation is necessary to ensure the robustness and generalizability of the findings.

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MIGRATION AND DISSOCIATIVE AMNESIA

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Abstract

Dissociative amnesia is a psychiatric disease condition, leading to severe memory problems in the episodic-autobiographical domain and as a consequence usually to problems with identity. A relation between dissociative amnesia and migration has barely been investigated, though there may be common features between migrants and patients with dissociative amnesia (suggestibility, labile personality, fantasy proneness, affective instability). A selection of ten patients with dissociative amnesia and a background of migration was done from a pool of several dozen patients with dissociative amnesia. Their mean age was about 22 years; eight were of male sex. All of them were studied with a large number of neuropsychological tests, covering the domains of intelligence, attention and concentration, executive functions, anterograde and retrograde verbal and visual memory, problem solving ability, cognitive flexibility, emotional reactivity and theory of mind functions. Tests on confabulatory tendencies and symptom-validity tests were given as well. Furthermore, questionnaires on personality dimensions and psychiatric disease conditions were applied. It was found that half of the patients did not leave their home country intentionally. Some of the patients had continuous problems with acquiring the language spoken in their new country, six of them had possible mild traumatic brain injury or other accidents, 2 had criminal acts (2 patients) and emotional quarrels (2 patients). Results indicate that the circumstances accompanying migration may be major trigger factors for dissociative amnesia.

Keywords: Retrograde memory, autobiographical memory, acculturation, neuropsychology.

1. Introduction

1.1. Migration

Migration occurs on the basis of a variety of causes or reasons. Usually migrants want to improve their life situation. They may suffer from poverty, religious, racist, or political persecution, or they may be jobless or live in a war zone. Migrants usually, though not always, leave their homeland and try to settle in another, usually foreign country. Migration is frequently accompanied by heightened stress levels and uncertainty, and therefore with factors influencing mental health (Bhugra & Gupta, 2011). Consequently, they may get ill in their new country more easily than people living there from birth (Altman, Gorman, Chavez, Ramos, & Fernandez, 2016; Hollander et al., 2016; Schellong, Epple, & Weidner, 2016). This especially, if they are (and remain) unable to speak the new country's language sufficiently and if they do not find a job comparable to their former job. Migrants showing a quick and sufficient integration in their new country and rising there in social status, may vice versa show a reduced risk of illness compared to the general population of the new country (Alegria et al., 2008; Breslau et al., 2007; Makarova, Brand, Brünings-Kuppe, Pohlabeln, & Luttmann, 2016). Age, available coping strategies, and cultural background furthermore influence levels of acculturation. It has also been found that many migrants from the start show a personality that differs from that of people not migrating (Finklestein, Laufer, & Solomon, 2012; Kouider, Dupont, Koglin, Lorenz, & Petermann, 2014).

Therefore, variables exist in migrants which may speak for a more labile personality with heightened fantasy proneness and strong affective sensitivity. Depressive tendencies and somatoform disease conditions are also increasing co-morbidities in migrants. Such variables can also be found in patients with dissociative disturbances or dissociative disease conditions (Staniloiu & Markowitsch, 2014a; Staniloiu, Markowitsch, & Kordon, 2018; Markotisch & Staniloiu, 2016).

1.2. Dissociative amnesia

Dissociation means the breaking up of normally attached functions – in psychiatry usually of emotional and fact-based functions. More than a century ago this was described to occur in what at that time and until a few decades ago was named hysteria (Markowitsch & Staniloiu, 2017). Hysteria can be associated with a number of related disease conditions (such as *dissociative identity disorder*, *dissociative amnesia*, or *depersonalization/derealization*), which all have certain affective and cognitive abnormalities in common that have an impact on the personal identity of the affected.

Of these disease conditions we will deal with dissociative amnesia, an illness which usually is closely related to stressful and psycho-traumatic life conditions (Dalenberg et al., 2012; Spiegel et al., 2011, 2013) and affects the recall of episodic-autobiographical memories (Fig. 1). As some patients recover from the amnesia, Markowitsch (2002) suggested the term *mnestic block syndrome* which implies, that the memories are still existent on the brain level, but their conscious recall is blocked.

A variant of dissociative amnesia is the fugue condition where patients not only lose access to their biographical past, but also leave their usual home area and are sometimes found hundreds and even thousands of kilometres away from their home (e.g., Markowitsch, Fink, Thöne, Kessler, & Heiss, 1997; Staniloiu et al., 2018).

Figure 1. The five long-term memory systems, based on Tulving's terminology and ideas (e.g., Tulving, 2005). These systems are assumed to develop from simple to complex (from left to right). Therefore, the simple systems such as procedural memory and priming exist in human beings from early childhood onward and in simple forms of animals, while the complex ones are only available in older children or in more advanced species. Tulving and others postulate that the episodic-autobiographical memory system exists in its full form only in (healthy) human beings.
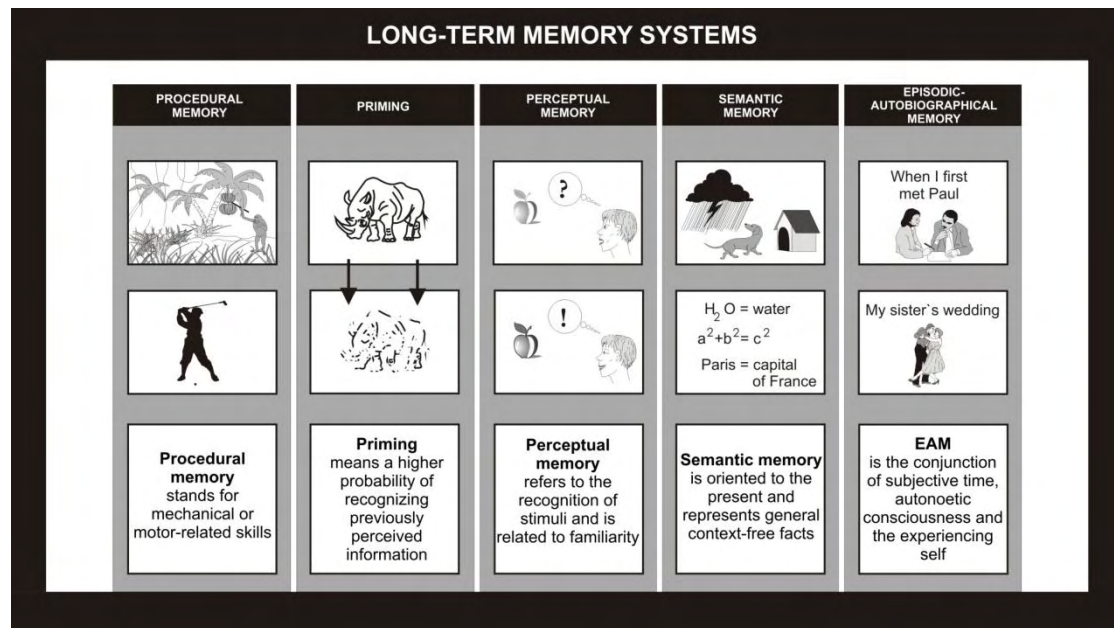
2. Objectives

Based on psychic vulnerability of individuals with a background of migration we wanted to investigate whether indeed a – compared to individuals with no background of migration – high percentage of such individuals are prone to develop dissociative amnesia. Furthermore, we were interested to find out whether such patients show distinct features with respect to their personality and life conditions which may trigger the appearance of dissociative amnesia.

3. Methods

From a larger number of patients with dissociative amnesia, investigated during the past two decades, those were selected who had been a migration background. Ten patients were selected. They ranged in age from 12 to 51 years (mean age: 21.8 years). Eight were male. All patients were studied neuropsychologically with a comprehensive neuropsychological test battery. This included tests of intelligence, attention and concentration, executive functions, anterograde and retrograde verbal and visual memory, problem solving abilities, tests on cognitive flexibility, on emotional reactivity and theory

of mind functions. Tests on confabulatory tendencies and symptom-validity tests were given as well. Furthermore, questionnaires on personality dimensions and psychiatric disease conditions were applied. The majority of them received neuroimaging of their brain.

4. Results

All patients had been hospitalized for some time. They originated from countries all over Europe and Asia from Portugal to Kazakhstan. Seven of them had major problems with their identity, as they had lost complete access to their whole past life. In all patients' major life events could be traced that were stressful or traumatic. These included car accidents in three patients, mild traumatic brain injury or other accidents in six patients, emotional quarrels with other persons in two patients, and performing (unsuccessful) criminal acts (2 patients) (more than one triggering event in several of the patients). Other problems of the majority of the patients were the following: Five patients had to leave their home country without intention or without wanting so, two did not acquaint even basic abilities of the language of the new country, and four did not find an appropriate job in the new country.

One of the patients manifested a rare form of dissociative amnesia, namely anterograde instead of retrograde dissociative amnesia (cf. respective cases listed in Table 2 of Staniloiu & Markowitsch, 2014a). (While such a condition is rare, in the French literature of the 19th century such a patient had already been described; see Markowitsch & Staniloiu, 2017.) Furthermore, it is of interest that this patient had an anterograde memory span of about four hours, corresponding to the memory span of two other anterograde dissociative patients, described in the last years (Markowitsch, Kessler, Kalbe, & Herholz, 1999; Smith et al., 2010).

In all ten patients the principal deficit was in the episodic-autobiographical domain, while the other memory systems were preserved or recovered quickly (cf. Figure 1).

5. Discussion

Migration is frequently accompanied by heightened stress: one does not know what to expect in the new country. Discrepancies between expectations and reality have to be processed. For this a repertoire of fitting coping strategies has to exist. Persons with a more labile personality are especially prone to develop a dissociative condition (Terhune, Cardena, & Lindgren, 2011). If a special, unexpected event (car accident, minor brain damage, etc.) occurs, this may trigger the outbreak of the dissociative condition.

A hypothesis, discussed for induction of dissociative amnesia, is the "two-hit hypothesis" (Roberts, Gluck, Smith, & Morrison, 2013; Staniloiu & Markowitsch, 2014a; Markowitsch & Staniloiu, 2016). With this hypothesis an additive or synergistic effect is postulated with respect to psychological or biological events, which are central for the development and persistence of dissociative amnesia. Repeated or unexpected misfortunes can in psychicologically labile and sensitive individuals lead to an allostatic charging (McEwen, 2000; Staniloiu & Markowitsch, 2014b) and to a defence reaction which manifests itself as dissociative amnesia (Staniloiu & Markowitsch, 2012). Other authors speak of an effect of incubation of adverse life circumstances (Lupien, McEwen, Gunnar, & Heim, 2009; Markowitsch & Staniloiu, 2012) or of cumulative effects of traumata (Mitchell & Black, 1995). The dissociative reaction is maintained by further stress which occurs when the patient consciously tries to access his past experiences (Markowitsch, 2002).

If further assumed that dissociative amnesia constitutes a protecting effect against otherwise not manageable problems (as already proposed by Freud (Breuer & Freud, 1895; Freud, 1910) and repeated by others (van der Kolk, 1994; van der Kolk & van der Hart, 1989; Pommerenke et al., 2012), then it seems obvious that migrants are more frequently affected than the general population. Therefore, the personal environment and the ability to adapt to it has a prominent influence on mental health.

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THE RELATIONSHIP BETWEEN OBSESSIVE COMPULSIVE SYMPTOMS, COGNITIVE VULNERABILITIES AND STRESSFUL LIFE EVENTS

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Abstract

Obsessive Compulsive Disorder (OCD) has been placed amongst the top disorders causing significant disability. The Cognitive models of OCD suggest that the negative interpretation of intrusions is a central feature to the maintenance and the development of OCD symptoms. Specifically, it has been suggested that dysfunctional beliefs such as inflated responsibility can predict the severity and the frequency of OCD symptoms. Furthermore, stressful life events (SLEs) have been associated with OCD symptoms but no research has examined whether they can successfully predict OCD symptoms. To our knowledge, no study has examined whether inflated responsibility, perfectionism, thought control and SLE are significant predictors of OCD symptoms. The aim of the present study was to examine if inflated responsibility, perfectionism, thought control and SLEs can significantly predict OCD symptoms. Participants were eighty males and females students (*N*=80) of The International Faculty of The University of Sheffield, City College (59 females, 21 males). Participants were asked to completed measures of OCD-related beliefs, OCD symptoms and SLEs. Multiple linear regression analysis revealed that inflated responsibility significantly predicted OCD symptom scores and perfectionism significantly predicted OCD scores. However, it was found that thought control and SLEs did not significantly predict OCD symptoms. The present findings add to the existing literature by providing evidence that inflated responsibility and perfectionism are significant predictors of OCD symptom scores. Furthermore, the current findings have important clinical implications regarding the prediction and the treatment options of OCD symptoms.

Keywords: OCD, dysfunctional beliefs, stressful events.

1. Introduction

OCD is a debilitating disorder which interferes significantly with daily functioning and disrupts the person's social and occupational functioning. According to the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, [APA] 2013), OCD is characterized by the recurrent obsessions and/or compulsions. Obsessions are ideas, thoughts, impulses or images which are experienced as unwanted and intrusive leading to significant distress. Compulsions are repetitive, intentional behaviors that the individual feels driven to perform accurately in response to a specific obsession (Hagen, Hansen, Joa & Larsen, 2013).

Although, a great deal of efforts has been devoted to clarify what differentiates people suffering from OCD from individuals without OCD, it is surprising that previous research has not yet successfully examined the predictors of OCD. Based on the cognitive–behavioral theories, most people experience intrusive thoughts that are similar in form and content to obsessions (Angst et al., 2004). However, what plays a crucial role in the development and the maintenance of OCD is how we react to, process, and interpret these intrusive thoughts (Barrett & Healy, 2003). Consequently, what differentiates individuals suffering from OCD is not the type or content of the thoughts they are experiencing, but it's the interpretation and meaning applied to their thoughts. Based on the aforementioned evidence, an emerging literature has begun to document the relationship between cognitions and OCD symptoms. More recently, significant improvements in OCD etiology have led to the development of the cognitive approach for OCD. In particular, it is suggested that specific maladaptive beliefs might lead individuals to misinterpret the intrusive thoughts which then lead to the onset of the obsessions (Hankin, Abramson, Miller & Haeffel, 2004). A significant amount of cognitive research has been devoted to clarify which maladaptive cognitive beliefs are the possible predictors for OCD vulnerability and various cognitive models have been proposed. For example, it has been suggested that beliefs concerning responsibility for

causing or preventing harm to oneself or others play a critical role in the maintenance of compulsive checking and other forms of neutralizing behaviours in OCD (Adams, Riemann, Wetterneck &Cisler, 2012). Indeed, there is evidence that people holding beliefs of inflated responsibility will experience greater difficulty to dismiss intrusive thoughts and will be more likely to engage in continuous compulsions (Chik, Whittal & O'Neill, 2008). The most contemporary model of OCD maladaptive beliefs was proposed by Obsessive Compulsive Cognitions Working Group (OCCWG; 2001). This group of researchers, aimed to extend our knowledge and understanding regarding the predictive power of maladaptive beliefs for OCD symptoms. According to OCCWG (2001), the onset and maintenance of OCD are associated with some specific dysfunctional beliefs identified in the following categories: Inflated Responsibility, Thought Control and Perfectionism. Besides, stressful life events (SLEs) such as the birth of a child, job loss or witnessing a car accident have been associated with numerous psychiatric conditions (Gothelf, Aharonovsky, Horesh, Carty & Apter, 2004). Although, research focusing on OCD has connected psychiatric conditions such as depression, anxiety disorders and posttraumatic stress disorder with the experience of SLEs, no research has examined whether they can successfully predict OCD symptoms. Another important research gap is that although previous research has clearly indicated the significant contribution of various dysfunctional beliefs on OCD symptoms, research has only focused on the dysfunctional belief of inflated responsibility.

The aim of our study was to examine the possible predictors of OCD and in particular, to investigate the dysfunctional beliefs of inflated responsibility, perfectionism and thought control as predictive factors of OCD symptoms. An additional goal was to examine whether SLEs would significantly predict OCD symptoms.

2. Method

2.1. Participants

Participants obtained for the present study were 80 eighty undergraduate and postgraduates males and females students (*N*=80) of the University of Sheffield International Faculty, City College (59 females, 21 males). The age of the participants ranged from 18 to 45 years old *(M=23, 45) (SD=5,405.)*. Participants were excluded from the study if they had ever received a formal diagnosis of OCD, Psychotic disorder, or substance use disorder (SUD).

2.2. Materials

The Obsessive Compulsive Inventory (OCI; Foa, Kozak, Salkovskis, Coles & Amir, 1998) is a 42-item self-report questionnaire which evaluates the frequency and the experienced distress associated with OCD symptoms (see Appendix A). Each item of the scale is answered on a 5-point (0–4) Likert-type scale for the frequency and the severity of the symptom. The 42 items of the scale form 7 subscales which are washing, checking, doubting, ordering, obsessing, hoarding, and neutralizing. Lower scores are better. The OCI measure yields mean scores for each of the seven aforementioned subscales, or an overall mean total score from all the items. Lower scores are desirable and a total score of more than 42 implies the presence of OCD, but is not diagnostic. For the current study, we measured OCD symptoms by calculating the total score of all the 42 items. Some items occurred in OCI are the following: "*I am obsessively concerned about cleanliness*" and *"I have to do things over and over again until it feels right".* Coles, Pietrefesa, Schofield and Cook (2008) used the OCI scale in a non clinical undergraduate sample and found high test-retest reliability and internal consistency. Furthermore, the internal consistency for the full scale (alphas = .92 and .95) indicates a strong internal consistency and acceptable for the seven subscales (alphas = .68 to .96).

The Obsessive Beliefs Questionnaire-44 (OBQ-44; Obsessive Compulsive Cognitions Working Group, 2005) is a 44-item self-report measure which calculates several dysfunctional beliefs related with obsessive thinking and considered to be critical to OCD symptoms. Each item occurred in the OBQ-44 questionnaire is rated on a 7-point Likert-type scale from 1= "*disagree very much*'' to 7= ''*agree very much*''. Higher rating scores indicate the individual's greater agreement with the dysfunctional belief. Furthermore, OBQ-44 can produce a total score of dysfunctional beliefs or can yield separate scores for three subscales that includes. The items of the scale represent the three beliefs domains of Responsibility/Threat estimation, Importance/Control of thoughts and Perfectionism/ Certainty. For the current study, we aimed to examine the dysfunctional beliefs of inflated responsibility, perfectionism and thought control separately by measuring the total score for each subscale. Some example of the items occurred in OBQ-44 scale are: "I should be upset if I make a mistake" and "Avoiding serious problems such as illness or accidents requires my constant effort".

The Life Events Survey (LES; Sarason, Johnson, & Siegel, 1978) is a self-report measure which includes a list of 57 various events that might have occurred to the individual within a time frame of six

months (see Appendix C). The list of the life events, includes general events (e.g. marriage, death of a close friend, serious illness, engagement, change of residence), 10 events that are directed to students (e.g., academic probation, changing university, joining a fraternity/sorority), as well as blank spaces to allow the participants to insert life events that are not listed in the questionnaire. For each event, participants can indicate whether they have experienced the events listed and also they can rate the perceived impact that the experience had on their life. The impact of the event is rated on a 7-point Likert-type scale ranging from -3= ''*extremely negative*'' to +3= ''*extremely positive*''. Previous research has found that SLEs are more likely to predict the frequency of OCD symptoms compared to positive life events and found adequate reliability was found for negative events (Belova, Sabirova & Malykh, 2014). Based on this evidence, the primary index of stressful life events for this study was the total number of negative events reported as having occurred during the past six months. Consequently, the number of events was measured instead of the subjective impact ratings of the events. Furthermore, LES has been found to have good convergent validity with other stress measures and that LES responses are not significantly influenced by the variable of gender and social desirability.

2.3. Procedure

The independent variables in our study were inflated responsibility perfectionism, thought control measured by OBQ-44 and SLEs measured by LES creating four independent total scores. The dependent variable of the study was participants' OCD symptoms scores estimated by the total score of the OBQ-44. A multiple linear regression analysis was used for the current study to examine our hypotheses.

Participants were recruited from the Library and other common areas within the premises of the University of Sheffield International Faculty, City College. Participants received first an information sheet form which informed them about the nature of the study, voluntary participation, confidentiality, and the possible risk or benefits. Participants were advised to contact the Counselling Center of the City College, International Faculty of the University of Sheffield in case they experienced any discomfort during or after the research. At the end of the information sheet, participants were informed that the present research has been approved by the Ethics Committee by the Psychology Department, City College International Faculty of the University of Sheffield and that the recruitment process started after the approval of the research. Following, participants were asked to complete a demographic form by indicating their age and gender. Last, participants were asked to complete a set of questionnaires including the three scales (OCI, OBQ-44, and LES).The duration of the study was approximately 20 minutes and at the end participants were thanked for their participation to the study.

3. Results

Correlation analysis was employed to examine the linear association among the variables of inflated responsibility, perfectionism, thought control, SLEs and OCD symptom scales. Results showed that three out of four of the computed Pearson correlation coefficients were statistically significant. In particular, there was a significant correlation between inflated responsibility and OCD symptoms, $r = .79$, $n = 80$, $p = < .001$. Besides, there was a significant correlation between perfectionism and OCD symptoms, $r = .80$, $n = 80$, $p = = < .001$. Furthermore, there was a significant correlation between thought control and OCD symptoms, $r = .50$, $n = 80$, $p = < .001$. Also, there was no statistically significant correlation between SLEs and OCD symptoms, $r = .18$, $n = 80$, $p = .09$.

In a separate analysis, multiple linear regression analysis was used to examine whether inflated responsibility, perfectionism and thought control would significantly predict OCD symptoms. Results indicated a collective significant effect between the above factors and OCD symptoms ($F (3, 76) = 60,644$, $p<.000$ with $R2= .705$. Inflated responsibility (beta= .344), $t = 2,725$, $p <.005$ significantly predicted OCD symptom and perfectionism (beta= .487), $t = 4,351$, $p= <.000$ significantly predicted OCD scores $p= <.000$. However, it was found that thought control (beta= .77), $t = 974$, $p= .333$ did not significantly predict OCD scores.

4. Discussion

The results indicated that inflated responsibility and perfectionism significantly predicted OCD symptoms. However, thought control and SLEs were not significant predictors of OCD symptoms. Therefore, our findings are in the same line with Adams, Riemann, Wetterneck &Cisler, (2012) that also supported the capacity of inflated responsibility and perfectionism to predictive OCD symptoms. Although, there is evidence by previous research that attempts to control a specific intrusive thought

increases the frequency of that thought (Moulding &Kyrios, 2006), in the current study, thought control did not predict OCD symptoms.

Those suffering from OCD experience intrusive thoughts, images, and impulses which tend to lead to significant disturbances because they are particularly salient for them and are associated with the negative automatic thoughts of being responsible about causing or preventing harm to others or self (Foa, Amir, Bogert, Molnar & Przeworski, 2001). In other words, OCD symptoms are caused and maintained because individuals feel pivotally responsible for preventing any possible misfortune and ensuring safety. Consequently, an individual suffering with OCD will face a common negative intrusion as being excessive responsibility and eventually will experience negative automatic thoughts and distress. In turn, the individual will attempt to reduce the feeling of discomfort by performing compulsions designed to minimize obsessions. Although, individuals make use of neutralizing techniques in an effort to reduce their discomfort, compulsions can reduce anxiety only temporary because they prevent individuals from addressing their negative intrusions and processing opposing evidence that would disconfirm their beliefs of personal responsibility (Foa, Amir, Bogert, Molnar &Przeworski, 2001). Overall, this is a vicious cycle starting from the experience of intrusions that individuals interpret as being personally responsible and performs compulsions to alleviate their anxiety but, by this way intrusive thoughts become more frequent and intense leading them to engage in more and more neutralizing behaviors.

Besides, a thorough explanation has been provided for perfectionism as a significant predictor of OCD symptoms. Libby, Reynolds, Derisley & Clark (2004) supported that patients suffering from OCD constantly experience an intense concern over making mistakes and a need to execute everything perfectly correct. The maladaptive belief of performing an action or a ritual in a perfect way leads the individuals to perform the ritual repeatedly until they have the certainty that the ritual was executed without any mistakes. Although, perfectionism is the individuals' attempt to ensure safety and maintain control over threat by engaging in compulsive behaviors, the obsessions are relieved only temporarily and after a while they are brought into consciousness even more intense (Bloch, Landeros-Weisenberger, Rosario, Pittenger &Leckman, 2008). Indeed, although performing the ritualistic behaviors such as counting and checking perfectly correct, offer a temporary reassurance to the individual, the feeling of certainty remains only until the next intrusive though appears to the individual.

5. Conclusion

The findings of the current study have some useful implications. Inflated responsibility, perfectionism, thought control and SLEs were examined regarding their capacity to predict OCD symptoms and it was found that inflated responsibility and perfectionism were significant predictors of OCD symptoms whereas SLEs and thought control were not. The current empirical evidence extends the previous findings which were mainly focused on inflated responsibility by establishing perfectionism as a significant predictor of OCD symptoms. Therefore, an important implication of the aforementioned evidence is that the previous cognitive models of OCD focusing only on the predictive value of inflated responsibility, should be revised and integrate also the factor of perfectionism.

The present findings have also important clinical implications regarding the treatment procedure of OCD. Having a better understanding regarding the maladaptive beliefs that play a crucial role in the development and the maintenance of OCD symptoms facilitates the effectiveness of OCD treatment. Recent cognitive therapies could include components of challenging the individual's beliefs of inflated responsibility and perfectionism. Taking into consideration our findings and the previous research evidence it is reasonable to conclude that inflated responsibility and perfectionism are the core predictive factors of OCD symptoms. On the other hand, SLEs and thought control still luck the evidence supporting their capacity to predict OCD symptoms.

Given the importance of dysfunctional beliefs regarding OCD etiology, subsequent research should further investigate inflated responsibility and perfectionism to reconfirm our findings. Besides, additional research should be conducted towards the examination of more dysfunctional beliefs in relation to OCD symptoms in order to extend our findings. Also, future research should reexamine SLEs by taking into consideration a greater variety of life events in order to replicate our evidence and gain a clearer picture. The clarification of variables that predict OCD symptom will facilitate the refinement of interventions and facilitate the development of empirically based prevention programmes.

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PSYCHOLOGICAL FACTORS OF QUALITY OF LIFE IN PATIENTS WITH BONE TUMORS

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Abstract

Introduction: Last decades scientific research of quality of life (QoL) is developing fast worldwide. QoL concept pays attention to emotional experience of disease in patients, particularly to personal sense of possibility to satisfy actual needs and possibility of full social functioning in spite of disease limitations. QoL in oncological patients is studied intensively. Nevertheless, the issue of QoL in patients with bone tumors focused on psychological factors of QoL and relation to disease impact on QoL is not discussed.
The aim of the study was to reveal psychological factors of QoL in patients with bone tumors.
Results: Study participants were 139 patients with bone tumors. The diagnoses were osteosarcoma (n=42), giant cell tumor (n=32), chondrosarcoma (n=32), Ewing sarcoma (n=10) and bone metastases (n=23). The study revealed that objective physical status and QoL in patients with primary bone tumors were significantly better than in patients with bone metastases. While objective physical status and QoL in patients with different forms of primary bone tumors was the same. The study revealed psychological factors significantly impact on QoL in patients with bone tumors regardless of the diagnosis. According the results of multifactorial dispersing analysis future goals, which form attitudes for life and time perspective, influence on increasing QoL in patients with bone tumors. Interest in life and emotional saturation correspond to higher QoL. Self-realization and patients' confidence in their ability to control their life also increase QoL. Moreover, conviction that a person is given control over his life, freely making decisions and implementation them corresponds to higher QoL. At that such characteristics in structure of personality as high degree of personal resources and cooperation correspond to higher QoL. Withal the results revealed differences in QoL parameters associated with relation to disease in patients with bone tumors.
Conclusion: Such psychological factors as future goals, interest in life and emotional saturation, self-realization and patients' confidence in their ability to control their life, conviction that a person is given control over his life, freely making decisions and implementation them, besides high degree of personal resources and cooperation influence on increasing QoL in patients with bone tumors.

Keywords: *Quality of life, psychological factors, attitude to disease.*

1. Introduction

Quality of life (QoL) in patients has been studied intensively last decades worldwide. This shows common trend of medicine humanization, intention to develop holistic view of a person and biopsychosocial approach to understanding health and disease. Thereby physicians' attention is fixed not on particular symptoms and disease progression mechanisms, but on a patient as a person with his or her life problems. Health related quality of life concept and methodology are developed fast. In clinical and epidemiological researches quality of life more often is considered a measure of medical intervention efficiency, and in the frame of medicine psychology quality of life during disease represents level and pattern of psychic (physiological, psychological and social) adjustment of person to illness.

Besides the issue of personality characteristics in patients included in the structure of response to the disease is actual. Personal characteristics in patients have an influence on the subjective evaluation of the basic parameters of quality of life in bone tumors and interrelated with different ways with quality of life parameters in different nosological forms.

2. Patients characteristics

Study participants since 2012 till 2017 (N=139) were inpatient with primary and metastatic bone tumors of N.N. Blokhin Russian Cancer Research Center.

General group includes five groups of patients with different nosological types of bone tumors. The first group included 42 patients diagnosed with osteosarcoma, average age at 27 ± 2. There were 25 (61%) males and 16 (31%) females in this group. The second group included 32 patients with giant cell tumor average age at 36 ± 3. There were 13 (42%) males and 18 (58%) females. The third group included 32 patients diagnosed with chondrosarcoma average age at 45 ± 3. Males prevailed in this group; they were 24 (80%) patients. Females were 6 (20%) patients. The fourth group included 23 patients with bone metastases (primary diagnosis is adenocarcinoma). There were 14 (78%) males and 4 (22%) females. The average age is 55 ± 2. The five groups included 10 patients diagnosed with Ewing sarcoma, average age at 26 ± 2. There were 3 (30%) males and 7 (70%) females in this group.

All patients had surgical or complex treatment.

3. Methods

The methods were:
1. SF- 36 Health Status Survey (Ware et al., 1993; Wasserman et al., 2011)
2. Quality of Life Questionnaire - Core 30 of European Organization for Research and Treatment Cancer (Aaronson et al., 1993; Fayers et al., 1995); Specific module BM-22 (bone metastasis) designed for HRQoL evaluation in patients with malignant bone tumor (Nenarokomov, 2012)
3. Personal questionnaire «Big V» (Wasserman et al., 2011)
4. The Ways of Coping Questionnaire (WOSQ) (Wasserman et al., 2011)
5. Purpose-in-Life Test (PIL) (Wasserman et al., 2011)

Statistical significance of distinctions between groups was calculated with t-criterion Student test. And Multifactorial dispersing analysis of data revealing personality impact on quality of life in four clinical groups of patients was done.

4. Results

The study revealed personality significant influence on QoL related to bone tumors. Factorial analysis of indices of questionnaires «Big V», «The Ways of Coping Questionnaire» and « Purpose-in-Life Test » was conducted. Five factors were determined.

These factors were used for further analysis. In the next stage as a result of cluster analysis personality profiles in patients were revealed. The profiles include psychological characteristics the factors have.

Personality clusters are presented on Figure 1.

Figure 1. Clusters of personality.
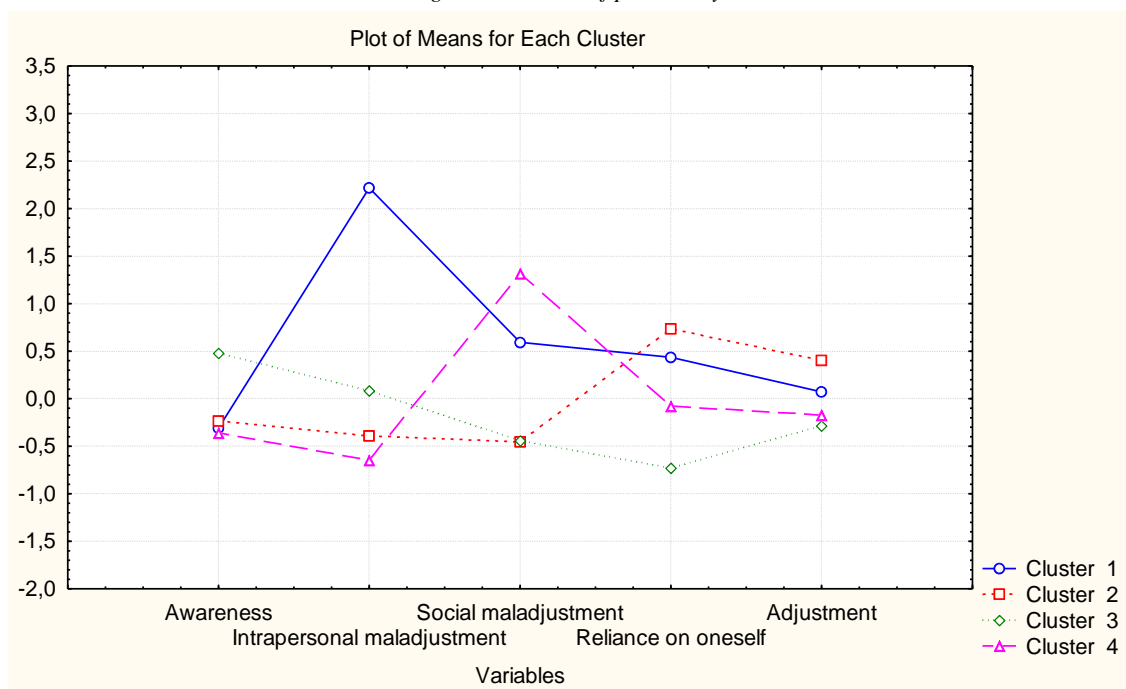
Figure 1 shows, that four personality profiles were received.

The first profile has high index on the factor of intrapersonal maladjustment. It was called "Person with intrapersonal maladjustment". The second personality profile has high indices on the factors of reliance on oneself and adjustment. It was called "Adjusted person". The third profile called "Conscious person" has the highest index on the factor of awareness. The fourth personality profile has the highest index on the factor of social maladjustment. It was called "Person with social maladjustment".

Further factorial analysis of indices of questionnaires "SF-36" and "Quality of Life Questionnaire - Core 30 with module BM-22" was done. Three factors of quality of life were determined. The first factor includes such QoL characteristics as low level of pain and high physical, social and role functioning. The second factor includes high general health, vitality, social functioning and good mental health. The third QoL factor presents diarrhea.

Next stage dispersion analysis was done with the purpose of study influence the personality profiles on QoL. The results are presented on Figure 2.

Figure 2. Personality profiles impact on QoL.
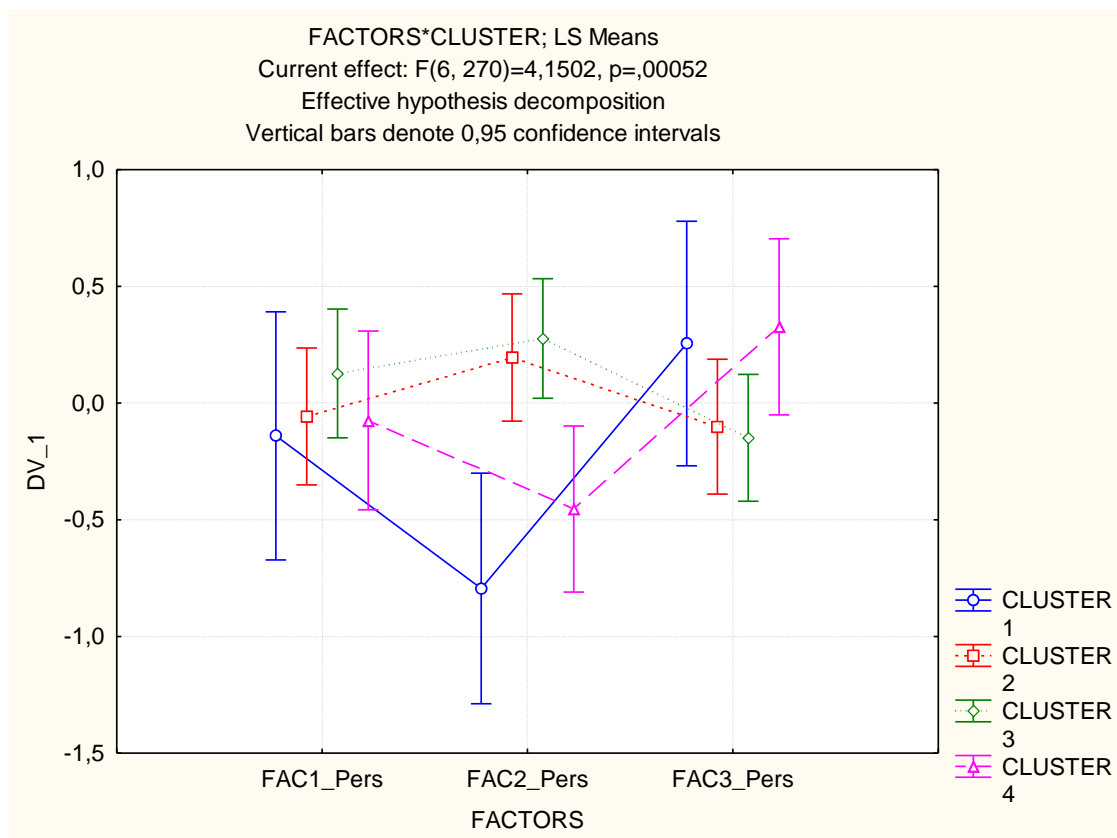
Figure 2 shows, that patients included in different groups depend on personality profile have different level of QoL. Patients with the personality profile "Conscious person" have the highest QoL. Patients with the profile "Adjusted person" also have high QoL.

QoL indices in these patients significantly better, than QoL indices in other patients. Patients with personality profiles "Person with intrapersonal maladjustment" and "Person with social maladjustment" have lower QoL on the parameters of general health, vitality, social functioning and mental health.

In conclusion, personality characteristics significantly influence on QoL related to bone tumors. Such personality characteristics as presence of purpose and results in life, interest in life, self-awareness, self-realization and patients' confidence in their ability to control their life, conviction that a person is given control over his life, cooperation and personal resources increase QoL on the parameters of pain and physical, social and role functioning, besides general health, vitality, social functioning and mental health.

Meanwhile, such personality characteristics as tendency to exaggerate disease severity and react to disease on the type of "irritable weakness", excessive concentration on subjective painful sensations, as well as extreme suspicion, gloomy, embittered mood and emotional instability decrease QoL in patients with bone tumors.

These results may be used in making programs of psychological helping in patients with bone tumors.

Acknowledgements

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FACTORS RELATED TO LIFE SATISFACTION. RELATIONSHIP BETWEEN LIFE SATISFACTION AND EMIGRATION INTENTIONS AMONG UNIVERSITY STUDENTS

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Abstract

Background: Life satisfaction (LS) is considered important to individual´s quality of life. We focused on factors like satisfaction with state´s economy (ECONOMY), state of education (EDUCATION), job satisfaction (JOB) and satisfaction with household´s income (INCOME) as possible factors related to LS of young people in Slovakia. LS was also hypothesized to affect emigration intentions (EI) of university students.
Objectives: to explore possible factors related to LS. Relationship between LS and EI was also addressed.
Methods: Two samples were used in the data analysis. Sample 1 was ESS (European Social Survey) sample (young Slovak people <30yr, n=117, M=25.7, SD=2.8) and sample 2 consisted of 489 Slovak university students (n=489, M=22.8, SD=2.9). Linear regressions were used for the analyses.
Findings: In the ESS sample, factor ECONOMY was positively associated with LS (β=0.285, pα<0.01) as well as factor EDUCATION (β=0.206, pα<0.05), factor JOB (β=0.248, pα<0.01) and factor INCOME (β=0.213, pα<0.05). Therefore, higher satisfaction with economy, better state of education, higher satisfaction with job and higher household´s income positively affect LS. In the sample 2, LS was negatively associated with EI (β= -0,167, pα<0.001).
Conclusion: We expected LS to be associated with EI, which was confirmed in sample 2. University students who scored lower in LS had stronger intentions to emigrate. Findings on ESS sample contribute to a better understanding of some socioeconomic factors affecting LS among young people in Slovakia. All factors, i.e. current state of education, job satisfaction, satisfaction with state´s economy and satisfaction with household´s income significantly contributed to LS. Future research may focus on studying these specific factors as possible predictors of emigration intentions.

Keywords: Emigration intentions, life satisfaction, university students.

1. Introduction

International migration is considered an important and challenging topic in the process of globalization in the 21st century (Divinský, 2007). Due to its significant impact in almost all aspects of people´s lives, it can be seen as either a positive or as a negative phenomenon. In Slovakia, there is an increase in number of students who aim to move abroad. Many of them consider moving abroad as a necessary step for their future career opportunities. Data from the Eurostat survey (Drozd, Frkáňová, and Kubovičová, 2012) conducted in 2010 shows that migration to study is the third most frequent reason for moving to another EU country. In this study, we mainly focused on factors related to life satisfaction of young people in Slovakia because, according to Ivlevs (2015), higher level of subjective well-being leads to greater work productivity, better physical health and enhanced social skills. We consider it important to study especially the young generation and their subjective life satisfaction. This is in line with Kremský (2015) who also confirms that the study of our young generation, which intend to go abroad or has already left, can be of a great benefit regarding the gained education, language proficiency, acquisition of a more complex worldview, new experiences and contacts which young people can use for the benefit of their country.

2. Objective

Firstly, the objective of this study was to explore whether socioeconomic factors like satisfaction with state´s economy, state of education, job satisfaction and satisfaction with household´s income are related to the overall life satisfaction of young people (<30yr) in Slovakia. Secondly, we investigated the relationship between life satisfaction and intentions to emigrate among university students in Slovakia.

3. Methods

3.1. Sample and procedure

Two separate samples of data were used. The first sample consisted of 117 young people from Slovakia (51.3% men) participating in European Social Survey (ESS). This cross-national survey is aimed at measuring the attitudes and beliefs of diverse populations. We have used the data from the sixth round (2012). Mean age for these participants was 25.7 (SD=2.8). In this ESS sample, the data were collected via face-to-face interviews in all participating countries, including Slovakia. The second sample consisted of 489 university students from Slovakia (M=22,8, SD=2.9) from which 75% were women, all participating in the Student Life Cohort Study (SLiCE 2016) which mostly focuses on the risk behaviour and emigration/migration intentions of university students. Data for this sample were collected via an online survey.

3.2. Measures

The factors related to life satisfaction in the first ESS sample were measured by following variables (measures in first sample):

▪ Life satisfaction was identified by a single item assessing how satisfied young people were with their life as a whole (from 0 extremely dissatisfied to 10 extremely satisfied).

▪ Satisfaction with state´s economy (ECONOMY), state of education (EDUCATION) and job satisfaction (JOB) were measured by single items assessing how satisfied were young people with each domain (from 0 extremely dissatisfied to 10 extremely satisfied). Satisfaction with household´s income (INCOME) was also measured by a single variable asking how they felt about household´s income nowadays (from 1 difficult to live on present income to 4 living comfortably on present income).

Relationship between life satisfaction and emigration intentions in the second sample (SLiCE 2016) was measured by following variables (measures in second sample):

▪ Life satisfaction in the second sample (SLiCE 2016) was measured by The Satisfaction With Life Scale (Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S., 1985) which consists of five items measuring subjective well-being of respondents (from 1 strongly disagree to 7 strongly agree). Cronbach´s alpha was 0.84. Higher overall score indicates a higher life satisfaction with life.

▪ Intentions to emigrate were measured by the 5-item scale (Chan-Hoong, Soon, 2011) which required respondents to rate the frequency with which they thought of working or living in another country for the following reasons: (1) overseas education, (2) better job prospects, (3) setting up a business, (4) to work and live in another country for an extended period of time, and (5) emigrating to another country to live there permanently. Each of these five measurements were scored on a 5-item Likert scale from 1 (never) to 5 (all the time). Cronbach´s alpha was 0.86. Higher overall score denotes a greater desire to migrate.

3.3. Statistical analyses

In the first sample, linear regression was used and the analysis was adjusted for gender and state of health services in the country. In the second sample, we used linear regression analysis which was adjusted for gender.

4. Results

The results from the first sample (ESS) show certain significant gender differences among young people in Slovakia (<30yr). Male´s perception of current state of education was significantly higher than among females. On the other side, women showed significantly higher job satisfaction. More details can be found in the Table 1.

Table 1. The descriptive characteristics in the measured variables according to gender on first sample (ESS).

VARIABLE	MEN	WOMEN	Theoretical range	T-test value
How satisfied with life as a whole	M=6.65 (SD=2.27)	M=7.27 (SD=2.14)	0-10	-2.267
Satisfaction with present state of economy	M=3.63 (SD=2.43)	M=3.68 (SD=2.32)	0-10	-0.147
State of education in country nowadays	M=5.41 (SD=2.48)	M=5.17 (SD=2.08)	0-10	0.852*
Job satisfaction	M=6.1 (SD=2.23)	M=7.3 (SD=1.7)	0-10	-3.364*
Satisfaction with household´s income	M=2.46 (SD=0.85)	M=2.36 (SD=0.83)	1-4	0.949

M – Mean; SD – Standard deviance; *p <0.05

As we can see below, we didn´t find any significant differences among university students in Slovakia in the second sample (SLiCE). More details can be found in the Table 2.

Table 2. The descriptive characteristics in the measured variables according to gender on second sample (SLiCE).

VARIABLE	WOMEN	MEN	Theoretical range	T-test value
Emigration intentions	M=12.8 (SD=5.17)	M=13.53 (SD=5.00)	5-25	-1,384
Life satisfaction	M=16.25 (SD=4.13)	M=16.08 (SD=4.4)	5-35	0.387

M – Mean; SD – Standard deviance;

The results in the first ESS sample showed that there were significant associations between life satisfaction and all socioeconomic factors. Linear regression analysis revealed that the factor ECONOMY was positively associated with overall life satisfaction (β=0.285, pα<0.01) as well as the factor EDUCATION (β=0.206, pα<0.05), the factor JOB (β=0.248, pα<0.01) and the factor INCOME (β=0.213, pα<0.05). These findings indicate that a higher satisfaction with the state´s of economy, better state of education, higher job satisfaction and higher household´s income are positively related to life satisfaction.

The results in the second sample (SLiCE) further showed that there was a significant negative association between life satisfaction of university students in Slovakia and their intentions to emigrate. (β= -0,167, pα<0.001). Therefore, students who perceive their life as more satisfying report lower level of emigration intentions.

5. Discussion

Although the relationship between socioeconomic factors and plans to move abroad has been relatively well examined, we focused on these factors in relation to an overall life satisfaction of young people in Slovakia. We confirmed that satisfaction with state´s economy, job satisfaction, satisfaction with household´s income as well as the current state of education in the country, all significantly contribute to the explanation of life satisfaction. Furthermore, we found out that life satisfaction of university students in Slovakia significantly influences their intentions to emigrate from their country of origin. These findings are supported by Otrashchenko and Popova (2014) who used the Eurobarometer data to show that, in Central and Eastern Europe, people less satisfied with life are more likely to report intentions to migrate – both internationally and domestically. This is also in line with the findings of Mihi-Ramirez and Kumpikaite (2013) who found economic factors to be the most dominant with respect to students´ motivation to leave or not to go abroad as well as to the decision to stay in the foreign country and were found to be also relevant for choosing a country for migration.

Limitations: Or study focused on two different samples, which is the reason why we couldn´t study possible meditation effect of life satisfaction in the relationship between socioeconomic factors (satisfaction with state´s economy, state of education, satisfaction with job, satisfaction with household´s income) and intentions to emigrate to another country. Future research should focus on studying this relationship as life satisfaction was found to be a significant mediator and intervening variable in relationship between perception of economic threat and intentions to emigrate (Kulanová, Orosová,

2017). Also, in this study we used only single item measures to explore relatively complex relationships. In the future, it would be helpful to direct attention to a more complex examination of the relationship between life satisfaction and intentions to emigrate and include additional socioeconomic factors important for student´s efforts to emigrate.

6. Conclusions

We have addressed socio-economic factors, such as satisfaction with household´s income, job satisfaction and current state of economy, as well as state of education as important factors related to life satisfaction among young people in Slovakia. Since many countries naturally try to prevent their skilled and educated young people from leaving, it is necessary to understand and support these factors, especially among young people, who are naturally more prone to emigration. Finally, we have also found that life satisfaction is significantly related to intentions to emigrate among university students in Slovakia.

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SELECTIVE MUTISM IN BILINGUAL CHILDREN: WHAT DOES IT MEAN TO BE SILENT IN TWO LANGUAGES?

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Abstract

Selective Mutism is a rare, childhood anxiety disorder that is characterized by a total absence of speech in social contexts where speech is typically expected or required, despite the child being capable of speech and speaking typically with the family in the home. As a clinical anxiety disorder, it may lead to significant impairment in the social/emotional development of the young child, and may even affect scholastic performance. Consistently, selective mutism research endorses a large proportion of selective mutism in bilingual children, yet rarely looks beyond identifying this fact. This research explores the role of early identity construction in a bilingual context; the issues of personal, social, cultural, and linguistic identity being raised and amplified for the child in this dual context from the earliest age. This paper introduces the on-going, longitudinal, qualitative research employed to explore the subjective experiences of 12 bilingual children diagnosed with selective mutism in childhood and how they navigated and navigate the world of their selective mutism, in the context of two or more languages, and two or more cultures. Issues of identity construction, mother tongue attachment, and how a duality in language and identity construction could lead to vulnerability at critical periods in an emotionally sensitive child's development. Relatedly, another objective of the research is to examine the potential role of bilingualism in the etiology, prevalence, and expression of selective mutism.

Keywords: Selective mutism, anxiety, bilingualism, mother tongue, identity construction.

PSYCHOSOCIAL FACTORS OF COGNITIVE CHANGES IN PATIENTS, UNDERGOING CARDIAC SURGERY

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Abstract

Cardiac patients frequently experience complications in the area of cognitive functioning as a result of serious cardiac surgeries, including coronary artery bypass grafting (CABG). Recent researches have shown a wide range of cognitive disorders accompanying cardiac surgery. However, the underlying mechanism leading to cognitive decline is still unclear. Moreover, psychological factors of beneficial and detrimental consequences of coronary artery bypass surgery for cognitive functioning are less studied than its clinical correlates.

For this reason, we aim at analyzing psychosocial factors of the dynamics of cognitive functions of patients with coronary heart disease (CHD) undergoing CABG. The work focuses on studying the main indicators of cognitive functioning (including active attention and concentration, verbal and nonverbal memory, psychomotor speed, and thinking abilities) and on studying the role of psychosocial factors in observed cognitive dynamics.

The present study enrolled 120 patients (of average age 59.71 ± 7.32 years) who underwent coronary artery bypass grafting with standard cardiopulmonary bypass technique. The examination using a neuropsychological test battery (including WAIS, TMT-test, Stroop test, TAS, Benton test, etc.) was performed in three stages: two days before CABG, 12-14 days and three months after the surgery.

Patients with CHD experience significant postoperative cognitive decline mostly in verbal memory and attention, while positive dynamics was observed in the visual and logical memory, as well as in spatial and verbal-logical thinking. A significant cognitive improvement three months after the operation occurred in visual memory, logical memory, and spatial thinking. According to the results of the study, the most important psychosocial factors of deterioration of cognitive functioning after surgery are: conflicts in family relationships, low social activity after surgery, a lower level of education, unemployment, and the pessimistic assessment of the prospects of returning to work (p<0,01).

The data obtained confirm and extend the hypothesis of cognitive reserve (Stern Y., 2003), according to which environmental factors can reduce the vulnerability of individuals to the age-related cognitive decline and pathological brain processes. The results obtained allow to develop evidence-based recommendations for the rehabilitation of patients undergoing cardiac surgery. These recommendations should be primarily aimed at achieving maximum efficiency of the rehabilitation process, improving indicators of ability to work and quality of life of the patients.

Keywords: Cognitive functions, emotional state, coronary heart disease, rehabilitation, cardiac surgery.

1. Introduction

About 16.7 million people in the world die every year from cardiovascular diseases, including coronary heart disease (CHD). CHD is leading in the incidence and mortality in the general population (Leal J., Luengo-Fernández R., Gray A., Petersen S., and Rayner M., 2006; WHO, 2006). Along with the use of conservative treatment of CHD, the role of surgical intervention in treatment CHD has been growing recently. One of the most important surgical treatments of coronary heart disease is coronary artery bypass surgery (CABG). The need for this intervention reaches 550-600 operations per 100,000 people (Sabirova E.Y., Chicherina E.N., 2012).

Numerous studies have demonstrated the effectiveness of CABG in treating CHD. As is well known, CABG improves coronary blood flow in the affected arteries, alleviates ischemia symptoms, and reduces the risk of myocardial infarction. However, CABG can lead to both operative and postoperative complications. For instance, CABG patients frequently experience postoperative cognitive disorders. The frequency of cognitive deficits after CABG remains high, and, according to some studies (Van Dijk D.,

2000; Mathew J.P., 2003), the frequency of these disorders reaches 50-80%. The main and most common cognitive disorders, which occur in the postoperative period, are decreased attention, slowing of psychomotor reactions and memory impairment (Eremina D.A., Shchelkova O.Yu., 2017).

A lot of recent studies have shown the need to study cognitive functions and their dynamics in patients with coronary artery disease who underwent CABG surgery (Kivimäki M., Shipley M.J., Ferrie J.E., Singh-Manoux A., Batty G.D., Chandola T., Marmot M.G., and Smith G.D., 2008). The high prevalence of cognitive impairments accompanying myocardial revascularization determines relevant trends in studying this issue. First, it seems to be useful to predict the development of cognitive disorders in order to optimize the subsequent treatment (Zuyeva I.B., Vanaeva K.I., Sanets E.L., Piotrovskaya V.R., Genihovich E.L., Kirillova V.I., Shlyakhto E.V., 2011), because a dynamic monitoring and an adequate treatment can lead to an improvement in 20-40% of patients with vascular cognitive impairments (Galluzzi S., Sheu C.–F., and Zanetti O., 2005; Rockwood K., Wentzel C., and Hachinscki V., 2000). Second, an increased attention should be paid to the early diagnosis of changes in the intellectual activity under the influence of the disease and vascular cognitive impairments, identifying their specific differences from age-related changes of cognitive functions. Third, the development of interventions aimed at prevention of postoperative cognitive impairment may reduce the appearance of ischemic strokes in the perioperative period (Stump D.A., Rogers A.T., and Hammon J.W., 1996) and neurodegenerative diseases in the late postoperative period (Boqueria L.A., Golukhova E.Z., Polunina A.G., Begachëv A.V., and Lefterova N.P., 2007). Moreover, it seems to be relevant to define the risk factors determining the presence of cognitive pathology, accompanying cardiac surgery.

The majority of well-known risk factors are related to clinical characteristics of patients with coronary artery disease. At the same time, the study of psychological correlates of both beneficial and detrimental cognitive changes after CABG seems to be relevant, because the underlying mechanism leading to cognitive decline is still unclear.

Thus, the present research aims at analyzing psychosocial factors of the dynamics of cognitive functions of patients with CHD undergoing CABG. The work focuses both on studying the main indicators of cognitive functioning (including active attention and concentration, verbal and nonverbal memory, psychomotor speed, and thinking abilities) and on studying the role of psychosocial factors in observed cognitive dynamics.

2. Materials and methods

118 patients undergoing coronary artery bypass grafting with standard cardiopulmonary bypass technique in Federal Almazov Medical Research Centre (Saint-Petersburg, Russia) were studied. Cardiopulmonary bypass (CPB) is a technique that temporary takes over the function of the heart. CPB is commonly used in heart surgery because of the difficulty of operating on the beating heart and it is well known to contribute to cognitive decline. The informed consent was obtained from all patients. Among them there were 58 (82.9%) men and 12 (17.1%) women; the average age of the patients was 59.71 ± 7.32 years. 48.6% of the patients were employed before the operation, 54.3% of patients were planning to return to their work after the operation. According to clinicians, the majority of the patients had no contradictions to come back to work three months after the surgery. But in fact, only 20.5% returned.

The examination was performed in three stages: two days before CABG, immediately before discharge from a hospital (12-14 days after CABG), and three months after CABG.

The methods used in the current study were selected with regard to the bio-psycho-social approach in modern clinical psychology and in accordance with the «Statement of Consensus on Assessment of Neurobehavioral Outcomes after Cardiac Surgery» (Zuyeva I.B. et al., 2011).

The study of cognitive functions of patients with CHD undergoing CABG was performed with the use of the following methods.

(1) Verbal learning test «10 words» was used in studying short- and long-term verbal memory.

(2) The method «Remembering stories» was used in studying logical memory.

(3) «The Benton Visual Retention Test» was used in studying visual perception and visual memory.

(4) The subtest «Similarities» of the Wechsler Adult Intelligent Scale (WAIS) was used in studying abstract verbal reasoning.

(5) The «Simple analogy» method was used in studying verbal-logical thinking.

(6) The subtest «Block Design» of the Wechsler Adult Intelligent Scale (WAIS) was used in studying spatial thinking.

(7) The Trail Making Test (TMT Parts A and B) was used in studying psychomotor speed, attention switching and mental flexibility.

(8) The Stroop Color-Word Test (SCWT) was used in studying two indicators: processing speed, as well as selective attention and resistance to cognitive interference.

(9) Computer technique «Visual acuity» was used to measure visual acuity.

(10) «Gollin Incomplete Figures Test» was used in studying the ability of visual recognition of the fragmented images.

The results obtained were processed with the use of standard statistical techniques included in SPSS and Statistica. We used Wilcoxon signed rank tests for a comparative analysis of the preoperative and postoperative variables of cognitive functioning. The scores obtained vs normative scores were analysed by using the t-tests. Differences were considered significant at $p<0.05$.

3. Results

The investigation was started by asking patients whether they had had any problems in cognitive functioning. 58.6% of the patients answered positively and declared memory complaints.

In accordance with the purposes of the research, the dynamics of the main indicators of the cognitive functioning of patients with CHD during the rehabilitation after CABG was studied (Table 1).

Table 1. Indicators of cognitive functioning of patients undergoing CABG.

The main indicators of cognitive functioning	The first stage (before CABG)	The second stage (12-14 days after CABG)	The third stage (three months after CABG)
	M ± m	M ± m	M ± m
Short-term verbal memory («10 Words»), the number of reproduced words after 5 presentations	7.97 ± 1.58	8.05 ± 1.46	7.24 ± 1.87
Long-term verbal memory («10 Words»), the number of reproduced words after 1 hour of presentation	5.44 ± 2.09	5.78 ± 2.05	3.20 ± 1.84
Visual memory (Benton test), score	6.64 ± 1.76	7.03 ± 2.05	7.96 ± 1.56
Logical memory («Remembering Stories»), score	3.98 ± 1.17	4.35 ± 1.06	4.64 ± 0.99
Abstract verbal reasoning (subtest «Similarity»), score	15.72 ± 4.29	17.20 ± 3.88	17.32 ± 3.84
Verbal-logical thinking («Simple Analogy»), score	7.68 ± 2.13	8.27 ± 1.78	8.04 ± 2.28
Spatial thinking (subtest «Block Design»), score	29.82 ± 10.47	29.43 ± 11.17	32.0 ± 12.47
Psychomotor speed (TMT-A), score	5.18 ± 2.93	5.05 ± 3.33	6.50 ± 3.23
Attention switching and mental flexibility (TMT-B), score	5.17 ± 3.0	4.57 ± 3.41	6.0 ± 3.46
Processing speed (SCWT), score	7.21 ± 2.16		8.29 ± 2.31
Selective attention and resistance to cognitive interference (SCWT), score	2.97 ± 2.87		5.26 ± 3.67
Visual recognition of the fragmented images (Gollin Test)	16,56±4,14	19,06±3,69	13,96±3,63

According to our findings, the most pronounced cognitive deficits three months after CABG as compared to preoperative and early postoperative levels were detected in the areas of both short-term and long-term verbal memory. On the contrary, the visual and logical memory indicators increase during the whole period of observation (from the first to the third stage).

Verbal-logical thinking, spatial thinking and abstract verbal reasoning of the patients were also studied during the research. The indicators of verbal-logical thinking and abstract verbal reasoning are higher 12-14 days after CABG than before it. However, we have observed no significant changes in verbal-logical thinking between the second and the third stages of the research. The dynamics of spatial thinking was positive as well. This data suggests that CABG, mostly due to the improved cerebral blood flow, can have a positive impact on the thinking abilities of patients with CHD.

The changes in the psychomotor speed are not statistically significant. However, the indicator of attention switching and mental flexibility is statistically significantly lower after the surgery than before. At the same time, the indicator of selective attention and resistance to cognitive interference statistically significantly improves during the treatment. These facts show a reduction in the attention switching and,

in the tendency, to interfere during mental work, as well as an improvement in functioning under the influence of external stimuli (Eremina D.A., Shchelkova O.Yu., 2017).

The most pronounced cognitive deficits two weeks after CABG as compared to preoperative level were detected in the area of visual recognition. In case of this indicator the minimum value indicates the best ability to recognize images (Schyolkova O.Yu., Eremina D.A., 2015).

At the next stage of the research all the indicators of cognitive functioning were analysed using factor analysis. As a result, 4 factors of cognitive functioning were identified:

1. Thinking (this factor includes the following cognitive indicators: abstract verbal reasoning, verbal-logical thinking, spatial thinking, visual memory, logical memory);

2. Visual recognition (visual recognition of the fragmented images);

3. Verbal memory (short-term and long-term verbal memory);

4. Cognitive control (psychomotor speed, attention switching and mental flexibility, processing speed, selective attention and resistance to cognitive interference).

To identify the psychological factors that can determine the postoperative cognitive dynamics of the patients, we analyzed the data obtained using multivariate analysis of variance. The following psychological factors, which could potentially determine the dynamics of cognitive functioning, were considered: quality of family relations of the patients, the level of social activity, the level of education, and the type of professional activity.

We discovered that the greatest prognostic value in relation to cognitive impairment in late postoperative period have the following psychological characteristics of patients: conflicts in family relationships ($p<0,05$), low social activity after surgery ($0,05<p<0,1$), a lower level of education ($p<0,01$), unemployment ($p<0,001$), and the pessimistic assessment of the prospects of returning to work ($p<0,05$).

The identified psychological factors largely determine the self-perception of the patients as individuals with disabilities, who are unable to lead normal life, to work and to have a high level of social functioning.

4. Conclusion

The present research demonstrates significant and stable changes in the cognitive functions of patients with CHD undergoing CABG with cardiopulmonary bypass. In agreement with previous results (Galluzzi S. et al. 2005; Rockwood K. et al., 2000), we observed negative changes in both short- and long-term memory. At the same time, a positive trend was discovered in the visual and logical memory, active attention, and thinking activity. The data obtained confirm and extend the hypothesis of cognitive reserve (Stern Y., 2003), according to which environmental factors can reduce the vulnerability of individuals to the age-related cognitive decline and pathological brain processes. These environmental factors are: the level of education (Dufouil A., Alpérovitch C., and Tzourio C., 2003; Le Carret N., Lafont S., and Letenneur L., 2003), mental activity during professional activities (Bosma H., Van Boxtel M.P.J., and Ponds R.W.H.M., 2002) and active leisure time (Scarmeas N., Levy G., and Tang M.X., 2001). According to the results of our study favourable family relationships, high social activity, as well as the optimistic assessment of the prospects for a return to work can be added to the factors, which can reduce the vulnerability of individuals to the age-related cognitive decline and pathological brain processes.

The results obtained in the present research open new ways of optimising the rehabilitation process and setting new psychotherapy goals for patients undergoing CABG and other cardiac surgeries. The results described in this paper also can contribute to diagnosing changes in the intellectual activity caused by the disease and vascular cognitive impairments timely and to distinguishing them from age-related changes. Our results emphasize the importance of taking into account peri- and postoperative cognitive changes accompanying cardiac surgery in order to prevent long-term cognitive dysfunction and regain the preoperative level of working capacity and qualification in patients of working age undergoing cardiac surgery.

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THE ROLE OF SCHEMATA IN RESPONSIBILITY AMONG PEOPLE WITH TRAUMATIC EVENT HISTORY

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Abstract

Schemata can be thought of as an abstract cognitive plan that serves as a guide for solving problems and interpreting knowledge. Schemata rooted in the early childhood. Trauma can be defined as events which disrupt the daily routine, develop suddenly and unexpectedly, create horror, anxiety and panic, and disturb the process of making sense of the world. Trauma have an important role in development of early maladaptive schemata. However, after traumatic event exposure it is possible to show psychological improvement, which is entitled as posttraumatic growth. Positive correlation between posttraumatic growth and responsibility has been found in the literature. Responsibility defined as individual's fulfillment of antecedents and consequences of their emotions, cognitions, and behaviors. It was thought that understanding the responsibility could be essential on the way through posttraumatic growth. The role of early maladaptive schemata in responsibility among people with traumatic event history was examined. A cross-sectional paper-pencil format study conducted with 139 participants who reported at least one traumatic event exposure included in the analysis. Informed consent, socio-demographic form, the Positive and Negative Affect Scale, the Young Schema Questionnaire Short Form, the Social Desirability Inventory, and the Responsibility Scale were given to the participants. Correlational analysis shows that responsibility was negatively and significantly correlated with emotional deprivation, failure to achieve, pessimism, mistrust, emotional inhibition, dependence, abandonment, defectiveness, instability, whereas relationship between responsibility and punitiveness was positively and significantly correlated. 2-stepped hierarchical regression analysis run to examine the role of early maladaptive schemata in the prediction of responsibility. Social desirability and positive and negative affect for last six months were entered in the first step. Significantly correlated early maladaptive schemata dimensions with responsibility entered in the second step. Results demonstrated that only punitiveness schema significantly predicted responsibility when controlled for social desirability and positive and negative affect for last six months. Punitiveness accounted for the variance of responsibility with the proportion of 5%. That is, although several schemata are related to the responsibility, only participants who has punitiveness schema feels more responsibility. On the way through posttraumatic growth, having punitiveness schema may be an inhibitor factor. Further studies may consider examining posttraumatic growth as considering the responsibility and early maladaptive schemata.

Keywords: Trauma, early maladaptive schemata, responsibility, correlation, regression.

1. Introduction

Schemata can be thought of as an abstract cognitive plan that serves as a guide for solving problems and interpreting knowledge. Schemata rooted in the early childhood and important in understanding psychological disorders (Young, & Klosko, 1993). Trauma can be defined as events which disrupt the daily routine, develop suddenly and unexpectedly, create horror, anxiety and panic, and disturb the process of making sense of the world (APA, 2013). Trauma have an important role in development of early maladaptive schemata (EMS) (Young, Klosko, & Weishaar, 2003). However, after traumatic event exposure it is possible to show psychological improvement, which is entitled as posttraumatic growth (PTG). Positive correlation between PTG and responsibility has been mentioned (Tedeschi & Calhoun, 1995; 2004). Responsibility defined as individual's fulfillment of antecedents and consequences of their emotions, cognitions, and behaviors (Topcu, 2016). It was thought that understanding the responsibility could be essential on the way through PTG.

The aim of the current paper is to assess the role of EMS in the prediction of responsibility while controlling the effects of social desirability and positive and negative affect for last six months in a sample of individuals with at least one traumatic event history. It was hypothesized that when social desirability and PA and NA for last six months were controlled, significant association between responsibility (R) and early maladaptive schemata subscales (EMSs) are still expected.

2. Methods

2.1. Participants

139 participants who reported at least one traumatic event history included into the study to examine the relationship of responsibility and EMS. The age of the subjects ranged from 18 to 52 years (M = 32.86, SD = 12.55). 74.8% (n = 104) of the participants are female, 25.2% (n = 35) of them are male. SD, PA and NA for last 6 months and EMSs group mean scores compared across gender via Mann-Whitney U test. Bonferroni correction was considered as well. Though gender ratio was in favor of females, all of them was insignificant across gender ($p \geq .05$).

2.2. Measures

2.2.1. Socio-demographic form. The form covers gender, age and educational status. Also, the definition of the trauma according to DSM V (APA, 2013) was given and asked to the participants whether they had any prior experience which fits to the definition.

2.2.2. The Positive and Negative Affect Scale (PANAS). PANAS was developed by Watson, Clark, and Telegen (1988) to measure general tendencies toward positive affect and negative affect. Different scores can be obtained for different timeframes. In this study, timeframe was their affectivity for 'last 6 months'. Participants were asked to indicate "*how you feel in general*" on a 1 ("*very slightly*") to 5 ("*extremely*") scale on 20 items. Gençöz (2000) adapted PANAS to Turkish population.

2.2.3. The Young Schema Questionnaire Short Form (YSQ SF). YSQ SF was originally developed by Young and Brown (1990) to assess early maladaptive schemata. Participants were asked to evaluate early maladaptive schemata by rated on a 6-point Likert-type scale ranging from 1 ("*never or almost never*") to 6 ("*all of the time*") scale on 5 items composing each 16 factors (Young & Brown, 1990). The Turkish form of the scale was adapted by Soygüt, Karaosmanoğlu, and Çakır (2009). Turkish version of the scale comprised of 14 factors.

2.2.4. The Social Desirability Inventory (SDI). SDI was originally developed by Stöber (2001) to measure the extant that individuals' respond in a favorable manner. Participants were asked to evaluate social desirability by rating 16 dichotomous questions ("*true*" / "*false*"). Higher scores manifest higher socially desirable responding. Total scores for social desirability ranged between 0-20. Turkish version of social desirability inventory was adapted by Kozan (1983). In Turkish version a list of 20 items was reported.

2.2.5. The Responsibility Scale (RS). RS developed by Topcu (2016) to assess individuals' perceptions about responsibility. Participants were asked to evaluate responsibility by rating on a 5-point Likert-type scale ranging from 0 ("*never*") to 4 ("*always*") on 24 items. Inventory has 3 dimensions, namely, emotional, behavioral and cognitive. Only total score of the scale was used in this study.

2.3. Procedure

The study presented in this manuscript is part of the doctorate thesis of the first author. Within this perspective, a cross-sectional paper-pencil format study conducted with conveniently sampled 139 participants. Instruments were presented in a randomized order to eliminate the effect of sequencing. The first page included informed consent and brief explanation of the study. Middle East Technical University Ethics committee approved the study. IBM SPSS 21 was used for all statistical analyses.

3. Results

Pearson correlation coefficients were calculated. Results revealed that the Responsibility scale total score was negatively and significantly correlated with emotional deprivation ($r = -.36, p < .001$), failure to achieve ($r = -.50, p < .001$), pessimism ($r = -.29, p < .001$), mistrust ($r = -.33, p < .001$),

emotional inhibition ($r = -.29$, $p < .01$), dependence ($r = -.39$, $p < .001$), abandonment ($r = -.30$, $p < .001$), defectiveness ($r = -.45$, $p < .001$), instability ($r = -.30$, $p < .001$), enmeshment ($r = -.38$, $p < .001$), whereas relationship between responsibility and punitiveness was positively and significantly correlated ($r = .18$, $p < .05$). Relationship among variables were summarized in Table 1.

To assess the role of EMS in the prediction of responsibility while controlling the effects of social desirability and positive and negative affect for last six months in a sample of individuals with past traumatic event history, 2-stepped hierarchical regression analysis was run. To learn the impact of EMS in the prediction of responsibility, social desirability and positive and negative affect for last six months were entered in the first step; and significantly correlated EMSs with responsibility entered in the second step of the Linear regression analyses (Enter), respectively. In the prediction of responsibility, the first model was significant ($F(3, 135) = 22.403$, $p < 0.001$). Only social desirability ($t = 6.674.082$, $p < .001$) and PA scores for last six months ($t = 3.488$, $p < .001$) significantly contributed to the regression. Adjusted R^2 revealed that both responsibility and PA scores accounted for the variance of responsibility with the proportion of 32%. β coefficients showed that exploratory proportions of SD and PA on responsibility were 48% and 25%, respectively. In the second step of the analyses, EMSs were added. Results revealed that in the prediction of responsibility, the second model was significant ($F(14, 124) = 9.823$, $p < 0.001$). Only SD ($t = 6.674$, $p < .001$) and punitiveness ($t = 3.69$, $p < .001$) subscale of EMS score significantly contributed to the regression. Adjusted R^2 revealed that SD and punitiveness scores accounted for the variance of responsibility with the proportion of 48%. β coefficients showed that exploratory proportions of SD and punitiveness on the responsibility were 38% and 29%, respectively (Table 2).

4. Discussion

Every act has its subsequent consequences. When individuals feel responsible for their behaviors, they feel guilt, shame or self-directed anger (Chandler, 1975; cited in Dawes, Montada, Filipp, & Lerner, 1992). Results revealed that social desirability and punitiveness schema significantly predicted the responsibility in participants with at least one traumatic event history. In punitiveness schema, individuals have a strong belief that people must be punished harshly when they make mistake. Therefore, they can be intolerant and feel angry to their and others' mistakes. It is known that individuals with punitiveness schema are likely to be raised by punisher adults (Young & Klosko, 1993). It is possible to be traumatized because of punisher parents. The more feel responsibility and behave responsibly, the more do they escape from the punishment, and prospective and cumulative traumatic effects. Also, in this case social desirability could be protective against punishment and feelings of guilt, shame, and anger resulted from 'failing' a responsibility for these individuals.

Although posttraumatic growth mentioned in this study, it was not assessed any measurement or statistically. It can be considered as a limitation. However, previous literature findings determine the way through posttraumatic growth (Tedeschi & Calhoun, 1995; 2004). In therapy, the aim is to help patients take their own responsibility and resolve the effects of traumatic event/s. Doing so, patients may seem very responsible. They may be quite agreeable to instructions of the therapist and goals. They may behave in a socially desirable manner. Current results could be considered as a warning to the therapists and the supervisors. Because of the punitiveness schema, therapist could be charged with the role of punisher adult. Rather than manifesting self-reflective examination, evaluating their behaviors, accepting their emotions, feeling relieved from frightening images of facing emotions, finding peace, contentment and control over the circumstances, and taking a social role and responsibility (Chandler, 1975; cited in Dawes, Montada, Filipp & Lerner, 1992). They may simply maintain their schema and inhibit themselves from psychological growth.

In this study, participants were not asked about the type, frequency, timing or any other feature of their reported traumatic event history. Results are based on their self-report. Inclusion of features of the event, related stress feelings and their functionality to the assessment may change the results. Also, the RS measures emotional, cognitive, and behavioral dimensions of responsibility as well (Topcu, 2016). In this study, only total score of responsibility was used. However, examining the dimensions of responsibility may lead detailed information about the relationship between responsibility and EMS. In addition, the assumption which punitiveness schema could be an inhibitor factor for PTG, this assumption could be tested statistically, too. Further studies can consider these limitations of current study.

Table 1. Correlations between scale scores (N = 139).

	R		SD		PA		NA	
	r	*p*	*r*	*p*	*r*	*p*	*r*	*p*
SD	.484**	.000	1	-	.077	.371	-.137	.109
PA	.123	.149	.077	.371	1	-	-.037	.662
NA	-.022	.797	-.137	.109	.037	.662	1	-
EMS								
Emotional deprivation	-.361**	.000	-.73	.393	-.156	.067	.170*	.45
Failure to achieve	-.495**	.000	-.212*	.012	-.353**	.000	.351**	.000
Negativity / Pessimism	-.294**	.000	-.50	.556	-.180*	.034	.407**	.000
Social isolation	-.327**	.000	-.209*	.13	-.156	.068	.299**	.000
Emotional inhibition	-.287**	.001	-.154	.70	-.173*	.041	.174*	.040
Approval seeking	-.131	.124	-.219**	.010	-.034	.688	.113	.185
Enmeshment	-.383**	.000	-.101	.239	-.095	.266	.324**	.000
Insufficient self-control	-.393**	.000	-.236**	.005	.135	.113	.116	.176
Self-sacrifice	.091	.288	.196*	.021	-.055	.519	.213*	.012
Abandonment	-.303**	.000	.014	.872	-.153	.072	.295**	.000
Punitiveness	.177*	.037	.201*	.018	.007	.93	.211*	.013
Defectiveness	-.447**	.000	-.204*	.016	-.177*	.037	.304**	.000
Vulnerability to harm	-.297**	.000	-.131	.124	-.182*	.032	.256**	.002
Unrelenting standards / Hypercriticalness	.135	.114	.019	.823	.229**	.007	-.022	.793

*p<0.001, **p<0.01, ***p<0.05

Table 2. Linear regression analyses (Enter) with responsibility total score as dependent variable and SD, PANAS, and EMSs scores as independent variables.

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	**SE**	**β**	*t*	*p*
Step 1	SD	1.156	.173	.475	6.674	.000
	PA	.160	.046	.246	3.488	.001
	NA	-.063	.040	-.110	-1.545	.125
Step 2	SD	.933	.168	.383	5.536	.000
	PA	.082	.045	.125	1.800	.074
	NA	.004	.041	.006	.086	.932
	Emotional deprivation	-.212	.125	-.164	-1.695	.093
	Failure to achieve	-.276	.165	-.192	-1.668	.098
	Defectiveness	.033	.176	.022	.186	.853
	Approval seeking	-.885	.830	-.588	-1.067	.288
	Vulnerability to harm	.025	.046	.055	.545	.587
	Punitiveness	.141	.038	.288	3.690	.000
	Abandonment	-.048	.048	-.103	-.993	.323
	Enmeshment	.213	.279	.432	.766	.445
	Emotional Inhibition	.019	.043	.040	.443	.658
	Social isolation	.005	.049	.012	.112	.911
	Negativity/Pessimism	-.052	.042	-.121	-1.260	.210

Step 1: F(3, 135) = 22.403, *p*<0.001, Adjusted R^2=0.318. Step 2: F(14, 124) = 9.823, *p*<0.001, Adjusted R^2=0.472, R^2 Change=0.193.

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THE IMPLEMENTATION OF COGNITIVE BEHAVIORAL COUNSELLING AT PROCESS OF HAJI NARRATIVE ANALYSIS (SELF RESTRUCTURING AS SELF SPIRITUAL COUNSELLING)

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Abstract

Hajj is the fifth pillar ideally and must be run by Muslims. Hajj one of the characteristics is the existence of positive behavior changes experienced by each pilgrim and the process that occurs only in the process of implementation of the Hajj is not in another process. Hajj pilgrimage should indeed be able and enabled God to live it and it is done only at the time of hajj season. This behavior change is a product of counseling, in which the craft of hajj can be viewed as self-counseling which is counseling by oneself. In addition, the time of behavior change as one of the indications of the pilgrims' congregation is limited to the length of the pilgrimage, becoming closer to the time of the counseling process, making it easier to measure the length of behavior change and the duration of the counseling process. The novelty of this research lies in the focus of pilgrims and changes in behavior that fall into the category of self-counseling success assisted by divine power.

Keywords: *Cognitive self-restructuration, self-spiritual counseling.*

1. Introduction

Hajj Mabrur coveted everyone because the reward is of course heaven. There are several traits that must be met, then someone who has a hajj can reach the craft. From Abu Hurairah radhiyallahu 'anhu, he said that the Messenger of Allaah' alaihi wa sallam:

الْعُمْرَةُ إِلَى الْعُمْرَةِ كَفَّارَةٌ لِمَا بَيْنَهُمَا ، وَالْحَجُّ الْمَبْرُورُ لَيْسَ لَهُ جَزَاءٌ إِلاَّ الْجَنَّةَ

"Among the one umrah and the other umrah will abolish the sin between the two and the Mabrur Hajj has no subject except heaven." (Narrated by Bukhari Muslim)

To run the pilgrimage attempted someone to use a halal sustenance because the Prophet sallallaahu 'alaihi wa sallam said: إِنَّ اللَّهَ طَيِّبٌ لاَ يَقْبَلُ إِلاَّ طَيِّبًا

"Allah is thoyyib (good) and does not accept except from good" (Narrated by Muslim).

Stay away from sin, sin in pilgrimage is a step to get the hajj craft. In the Qur'an the word of God is mentioned:

الْحَجُّ أَشْهُرٌ مَعْلُومَاتٌ فَمَنْ فَرَضَ فِيهِنَّ الْحَجَّ فَلاَ رَفَثَ وَلاَ فُسُوقَ وَلاَ جِدَالَ فِي الْحَجِّ

"(Season) Hajj is a few months to be understood, whoever sets his intention in that month will work on Hajj, it should not be rafats (say filthy), do wickedly and argue in the time of pilgrimage (QS. Al Baqarah: 197).

On the other hand, in running the pilgrimage there are health challenges that must be anticipated by pilgrims in addition to pilgrims must also be able to resolve the affairs of his own worship. Hossein B, M & Rahimin, M (2017: 122-131) conveyed the congregation needs to be measured against the body of three common bacteria, essentially physical strength is very important in running the pilgrimage with resilience to infections and bacteria that come during the pilgrimage. Similarly, according to Daneshmehr, A. M & Tafazoli, A (2016: 40-45), Khan, DI et al (2017: 1-6) also emphasized that the importance of maintaining the stamina and physical endurance of pilgrims avoids the death of the Hajj, this opinion is corroborated also by Al-Abdallat, M. M, et al (2017: 34-37) also Alhomound F & Al hamound, F (2017: 1-7), Shirah et.all (2017: 277-286) in addition to the need for Hajj health care cooperation, especially for pilgrims who suffer pneumonia disease. While on the other hand the results of research Kouchi et. all (2016: 1-5) states that the number of pilgrims to be a major commodity and economic development in addition to petroleum business for Saudi Arabia. The importance of health care is also addressed by Alqahtani, S. A, et al. (2016: 53-59) and according to Shafi S. et.all. (2016: 79-82).

Alqahtani S.A.et.all (2016: 1-10) explains that the importance of maintaining health in order to avoid medical accidents while performing the pilgrimage according to the results of research likes Gautret, P. et all. (2016: 83-85) is also the result of research Alfaleli, M. et al. (2016: 1-8) it seems that influenza vaccination is indispensable for pilgrims. (Gautret, P., et.all) (2015: 1-5) is therefore necessary for the pilgrim vaccine to avoid coughing, including research by Edouard, S. Et.all., (2017: 1-8) and was also presented by Verhoeven, O.P. et.all. (2015: 649-650), Al Shimemeri, A. (2012: 123-127), Al Qahtani SA (2015: 1-6) therefore also need the use of masks to cope with respiratory infections by Wang, M et all (2014: 181-189). Memis, A.Z, et.all. (2014: 171-175) also suggests pilgrims need to be vaccinated before leaving for the pilgrimage.

Understand and prepare for physical worship in addition to the challenge of maintaining health, pilgrims are also required to carry out all duties and *sunnah* of hajj for approximately 40 days, the other side of the congregation should demand an increase in the position of faith and Islam as a result of performing perfection of worship as a Muslim.

2. Method

The research method used a qualitative approach of experimental research with narrative analysis approach with the study of the behavior of pilgrims - within religion conversion- (Padget, KD 2004: 51), the feeling of thoughts and behavior indicated by positive change and ensured only because of the process of Hajj. The time of the behavior change process during the 40 day journey of pilgrimage based on the hajj. The data collected were stories during the pilgrimage when they were in Makkah and Medina. Then finding analyzes the results of the behavior of the research subjects and interprets them into the context of counseling. Furthermore, researchers conduct topical and structural analysis, starting by determining the type of behavior that turned into good and new habits after performing the pilgrimage. Then the researchers analyzed the feelings, thoughts, that appear on the pilgrims towards hidden or visible events, rewards and punishment received against them (analyzing voices), then researchers continue with the interaction between the interviewer and the interviewee,

Participant is someone who has run the pilgrimage and undergo the pilgrimage within 40 days. The data retrieval procedure is purposive sampling which the researcher intentionally takes one of the group of pilgrims who has a group in every month.

3. Result

The process of changing the behavior of pilgrims is as shown below figure 1.

Figure 1. The process of cognitive restructuration and the result of changes in the behavior of Hajj pilgrims.
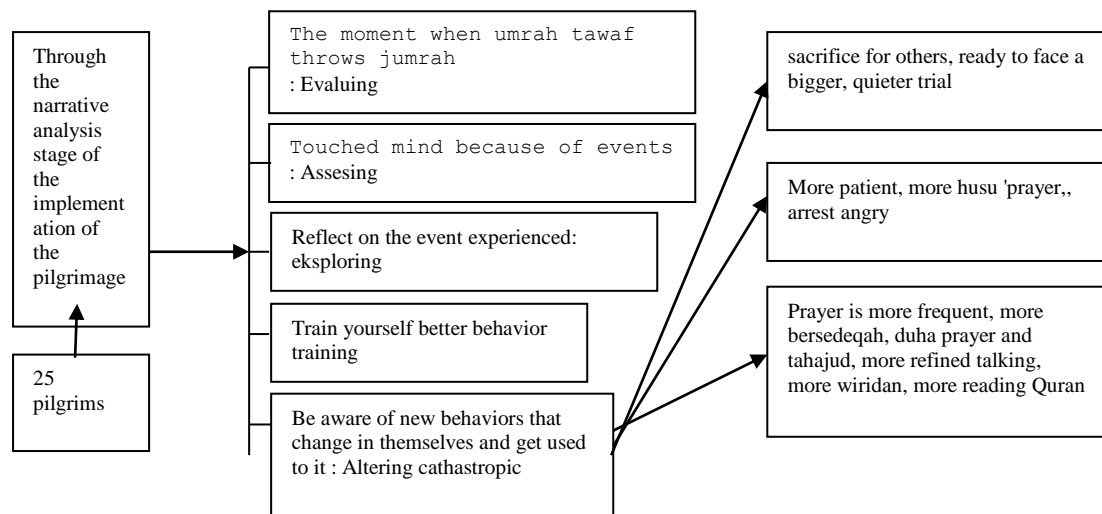
4. Discussion

Based on the above data it can be concluded there is a change in behavior after the 40-day hajj experienced by pilgrims. More behavioral changes to positive emotional change and positive behavior. As research Albada.A.et all (2014: 178-186) that there is a change of positive emotions after the counseling.

Similarly, in Hucdurmaz's research, D & Oz, F (2015), Karami S, et.all (2012: 78-81), Shubina, I, (2016: 1008-1018), Ternstrom, E.et.all (2017: 75-82), Bahhmanzadeh, l & Alizadeh, HK (2017: 1154-1161) that there is always a behavioral change in both cognitive and psychomotor affective post-cognitive behavioral counseling therapy. The Meichenbaum & Deffenbacher's cognitive restructuring steps (in Gelson & Fretz 2001) are passed in five stages where in the pilgrimage process occurs on its own because the Hajj is in God's intervention. All these behavioral changes are an ideal diversity cycle for a Muslim, where ideally worship pilgrimage is an accumulation of five other Islamic pillars of manifestation.

Figure 2. Changes in Hajj Behavior Between Hajj Craftsmanship and Successful Self-Restructuring Counseling
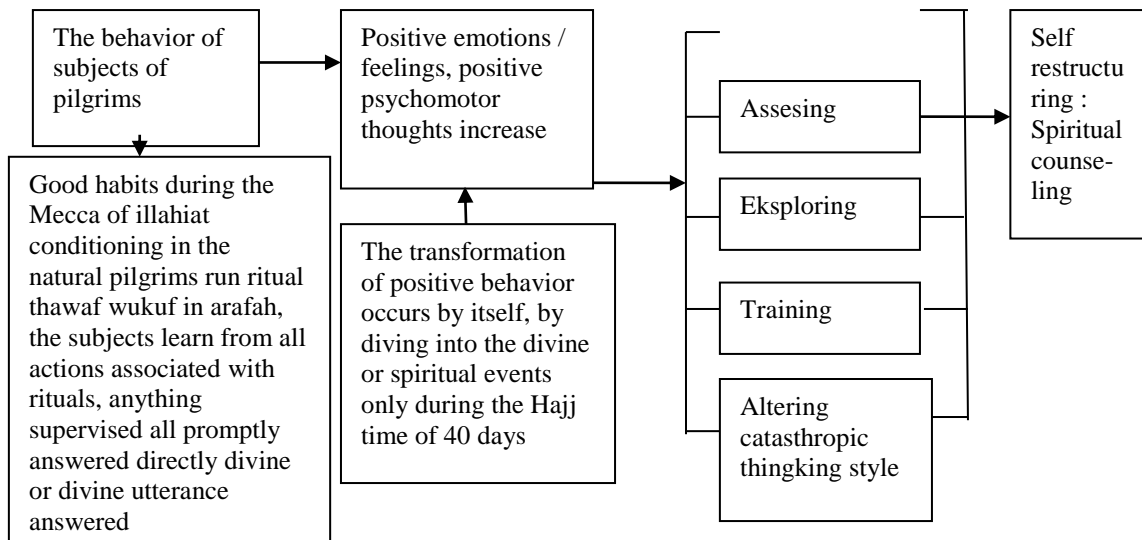
5. Conclusion

Novelty's research is to bridge the behavioral changes can be a scenario in an environment and can be targeted when changes occur. The existence of a product of behavior change better than before the Hajj can be ascertained that the behavior is derived only from the product of the Hajj, and this change indicates one of the hajj one's achievements and this is self-spiritual counseling. The self can feel that it is better than before to leave the pilgrimage, self-reflection, self-improvement, and restraint to remain in the good of behavior, mandated by the individual's desire to become Mabrur pilgrimage and others can also see the change and can call him Mabrur.

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PREDICTORS OF COMPASSION SATISFACTION AND COMPASSION FATIGUE AMONG HELPING PROFESSIONALS IN SLOVAKIA

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Abstract

This research study presents the findings of a national Slovak research project focused on the positive and negative consequences of professional helping. Foreign research has provided evidence that the positive and negative consequences of helping (compassion satisfaction, compassion fatigue – burnout and secondary traumatic stress) are correlated with various psychological variables. However, little is known about the psychological correlates of compassion satisfaction and compassion fatigue (burnout and secondary traumatic stress) in the context of Slovakia. Therefore, the aim of the research study is to explore the associations between selected psychological variables (optimism, self-esteem, emotional well-being, anxiety, depression) and the positive and negative consequences of helping among Slovak helping professionals. The participants (236 helping professionals: educators (47%), health professionals (30.1%), social workers (12.7%), psychologists (7.2%) and teachers (3%) employed in social-care institutions) completed the Professional Quality of Life scale, Life Orientation test – revised, Rosenberg Self-Esteem scale, Emotional Habitual Subjective Well-Being scales, State-Trait Anxiety Inventory and Beck Depression Inventory. The results showed that compassion satisfaction was positively correlated with optimism, self-esteem and a positive state of mind but negatively with anxiety, depression and a negative state of mind. Burnout and secondary traumatic stress were positively correlated with anxiety, depression and negative state of mind but negatively with optimism and self-esteem. Regression analyses (Enter method) revealed that the amount of variance explained by the psychological variables was 29.8% for compassion satisfaction, 38.5% for burnout and 24.1% for secondary traumatic stress. The best predictors of compassion satisfaction, burnout and secondary traumatic stress were a positive state of mind and negative state of mind, i.e. the frequency of experiencing positive and negative emotions at work. These findings highlight the importance of emotional well-being in promoting compassion satisfaction and reducing compassion fatigue and will be used in upcoming intervention programs for helping professionals in Slovakia.

Keywords: Compassion satisfaction, compassion fatigue, correlates, predictors, helping professionals.

1. Introduction

Professional helping is associated with a variety of positive and negative consequences such as compassion satisfaction, compassion fatigue, burnout, perceived stress and secondary traumatic stress. These have been well described in the scientific literature (Figley, 1995; Figley, 2002; Figley & Stamm, 1996; Maslach, 2003; Maslach, Schaufeli, & Leiter, 2001; Stamm, 2010). Compassion satisfaction (CS) refers to the positive feelings about work as a result of helping; a helper views his/her work as useful, meaningful and valuable and also feels positively about his/her colleagues (Stamm, 2010). On the contrary, compassion fatigue refers to the negative effects of helping in the cognitive, emotional and behavioral domain (Figley, 2002). These are connected with the helper´s exposure to the problems and traumas of his/her clients or patients (Bride, Radey, & Figley, 2007; Figley, 1995; Figley, 2002). The symptoms of compassion fatigue are also described by the terms secondary traumatic stress (STS), secondary traumatic stress disorder, secondary victimization and vicarious traumatization (Bride et al., 2007; Figley, 2002; McCann & Pearlman, 1990). There is an emphasis on the indirect (secondary, vicarious) effect of the traumatic experience of clients/patients on the helper who can start to feel traumatized as a result of helping (Bride et al., 2007; Figley, 2002; McCann & Pearlman, 1990). However, it is important to distinguish the STS experienced by helpers from the primary stress experienced by their clients/patients (Figley, 2002). STS is often associated with burnout (Figley, 1995; Figley, 2002). Burnout (BO), as part of compassion fatigue, has been defined as "a result of frustration,

powerlessness, and inability to achieve work goals" (Figley, 2002, p. 19) and mainly refers to the symptoms of emotional exhaustion of a helper (Stamm, 1999; Stamm, 2010). The unidimensional conceptualization of BO by Figley (2002) and Stamm (1999; 2010) differs from the model of burnout by Maslach (2003) in which BO is viewed as a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment.

Research studies have provided evidence that the positive and negative consequences of helping (CS, compassion fatigue – BO and STS) are correlated with various psychological variables, e.g. empathy (Figley, 2002), mastery (Adams, Boscarino, & Figley, 2006), helplessness (Killian, 2008), trauma history of a helper or his/her experience of negative life events (Adams et al., 2006; Killian, 2008), mindfulness and emotional separation (Thomas & Otis, 2010), wellness (Lawson & Myers, 2011), satisfaction with work and relationships in the workplace (Ray, Wong, White, & Heaslip, 2013; Stamm, 2010), anxiety and depression (Hegney at al., 2014; Köverová, 2016; Tremblay & Messervey, 2011), self-esteem, dispositional optimism and emotional well-being (Köverová, 2016; Köverová & Ráczová, 2017). Although our previous research (Köverová, 2016) offered some evidence about the psychological correlates of CS, BO and STS in Slovak helping professionals, little is known about the psychological predictors of the positive and negative effects of helping in Slovakia.

The objectives of this study were (1) to explore the associations between selected psychological variables (optimism, self-esteem, emotional well-being, anxiety and depression) and the positive and negative consequences of helping (CS, BO and STS); and (2) to identify the significant psychological predictors of CS, BO and STS among Slovak helping professionals. It was hypothesized that optimism, self-esteem, emotional well-being, anxiety and depression would be (1) significantly correlated with and (2) would be able to predict CS, BO and STS in Slovak helping professionals.

2. Method

2.1. Participants

The participants were 236 helping professionals: educators (47%), health professionals (30.1%), social workers (12.7%), psychologists (7.2%) and teachers (3%) employed in social-care institutions in Slovakia: children´s homes (69.9%), health care and rescue services (30.1%). More women (89.8%) than men (9.7%) participated (1 person did not report their gender). The age of participants was 20-61 years (M = 40.18; SD = 11.44) and the length of their working experience was 0-42 years (M = 11.26; SD = 10.59). Participation in the research was voluntary and anonymous.

2.2. Measures

Professional Quality of Life scale (ProQOL 5; Stamm 2010; Slovak adaptation Köverová, 2016). The ProQOL 5 is a 30-item self-report measure of compassion satisfaction (CS; e.g. *"My work makes me feel satisfied."*), burnout (BO; e.g. *"I feel worn out because of my work as a helper."*) and secondary traumatic stress (STS; e.g. *"I feel as though I am experiencing the trauma of someone I have helped."*). A 5-point scale is used to indicate the frequency of experiencing the positive and negative consequences of helping in the last 30 days (1 = never; 5 = always). In this research, Cronbach α estimates of CS, BO and STS were 0.845, 0.652 and 0.797, respectively.

Life Orientation Test-revised (LOT-R; Scheier, Carver, & Bridges, 1994; Slovak adaptation Köverová & Ferjenčík, 2013). The LOT-R is a 10-item self report measure of dispositional optimism (e.g. *"In uncertain times, I usually expect the best."*). The answers are rated on a 5-poit scale (0 = strongly disagree; 4 = strongly agree). In this research, the internal consistency estimate (Cronbach α) of the scale was 0.679.

Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965; Slovak adaptation Halama & Bieščad, 2006). The RSES is a 10-item self-report measure of global self-worth (e.g. *"I feel that I have a number of good qualities."*). The level of positive and negative feelings about the self is rated on a 4-point scale (1 = strongly disagree; 4 = strongly agree). In this research, the Cronbach α estimate of the scale was 0.794.

Emotional Habitual Subjective Well-Being scales (SEHP; Džuka & Dalbert, 2002). The SEHP is a 10-item self-report measure of emotional component of well-being consisting of two scales: the scale of the positive state of mind (4 emotions and physical states - *joy, pleasure, happiness, energy*) and the scale of the negative state of mind (6 emotions and physical states - *fear, anger, sadness, shame, guilt, pain*). A 6-point scale is used to indicate the frequency of experiencing the positive and negative emotions and physical states (1 = almost never; 6 = almost always). In this research, the internal consistency estimates (Cronbach α) were 0.769 (scale of positive state of mind) and 0.705 (scale of negative state of mind).

State-Trait Anxiety Inventory, Trait version (STAI X-2; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1983; Slovak adaptation Müllner, Ruisel, & Farkaš, 1980). The STAI X-2 is a 20-item

self-report measure of anxiety as a trait. A 4-point scale (1 = almost never; 4 = almost always) is used to indicate the frequency of the usual feelings of a person (e.g. *"I am happy."* - reverse coded). In this research, the Cronbach α estimate of the scale was 0.863.

Beck Depression Inventory (BDI; Beck, Steer, & Brown, 1996; Slovak translation Praško, Buliková, & Sigmundová, 2009). The BDI is a self-report measure of the severity of depression. A 4-point scale is used to indicate the severity of 21 depression symptoms (0 = low severity; 3 = high severity). In this research, the Cronbach α estimate of the scale was 0.833.

2.3. Statistical analyses

IBM SPSS Statistics 21 software was used to analyze the data. Pearson correlations were used to test the relationships between the positive and negative consequences of helping (CS, BO, STS) and selected psychological variables (optimism, self-esteem, emotional well-being, anxiety and depression). Three separate regression analyses (Enter method) were used to identify the predictors of CS, BO and STS. The tested predictors were optimism, self-esteem, emotional well-being (positive and negative state of mind), anxiety and depression.

3. Results

The descriptive statistics showed that helping professionals experienced the positive consequences of helping more than the negative effects of helping: moderate to high levels of CS (M = 3.70; SD = 0.58), optimism (M = 2.51; SD = 0.56), and self-esteem (M = 3.20; SD = 0.40); moderate levels of a positive state of mind (M = 3.62; SD = 0.81); low to moderate levels of a negative state of mind (M = 2.28; SD = 0.57), anxiety (M = 2.08; SD = 0.35), BO (M = 2.48; SD = 0.46), and STS (M = 2.30; SD = 0.54); and low levels of depression (M = 0.25; SD = 0.24).

Table 1. Pearson correlations between compassion satisfaction (CS), burnout (BO) and secondary traumatic stress (STS) and selected psychological variables.

	CS		BO		STS	
	r	p	r	p	r	p
Optimism	0.307	<0.001	-0.430	<0.001	-0.290	<0.001
Self-esteem	0.237	0.001	-0.468	<0.001	-0.365	<0.001
Positive state of mind	0.499	<0.001	-0.426	<0.001	-0.081	0.243
Negative state of mind	-0.156	0.024	0.414	<0.001	0.378	<0.001
Anxiety	-0.315	<0.001	0.499	<0.001	0.386	<0.001
Depression	-0.347	<0.001	0.415	<0.001	0.248	<0.001

Table 2. Predictors of compassion satisfaction (CS), burnout (BO) and secondary traumatic stress (STS).

	Predictors	R^2	B	β	t	p
CS	Optimism	0.298	0.118	0.109	1.408	0.161
	Self-esteem		-0.084	-0.057	-0.719	0.473
	Positive state of mind		0.323	0.438	6.247	<0.001*
	Negative state of mind		-0.035	-0.033	-0.495	0.621
	Anxiety		0.118	0.070	0.738	0.461
	Depression		-0.514	-0.212	-2.799	0.006*
BO	Optimism	0.385	-0.093	-0.110	-1.524	0.129
	Self-esteem		-0.185	-0.159	-2.149	0.033
	Positive state of mind		-0.124	-0.214	-3.261	0.001*
	Negative state of mind		0.186	0.225	3.570	<0.001*
	Anxiety		0.073	0.056	0.624	0.534
	Depression		0.225	0.118	1.673	0.096
STS	Optimism	0.241	-0.063	-0.068	-0.842	0.401
	Self-esteem		-0.237	-0.184	-2.240	0.026
	Positive state of mind		0.106	0.166	2.284	0.023
	Negative state of mind		0.204	0.223	3.194	0.002*
	Anxiety		0.330	0.226	2.286	0.023
	Depression		-0.038	0.165	-0.227	0.820

The correlation analyses revealed several significant ($p \leq 0.002$; after Bonferroni correction: $p = 0.05/18$) weak to moderate relationships between the tested variables (Table 1). Optimism and self esteem correlated positively with CS and negatively with BO and STS. Anxiety and depression correlated negatively with CS and positively with BO and STS. High levels of a positive state of mind were associated with high levels of CS and low levels of BO. High levels of a negative state of mind were associated with high levels of BO and STS (Table 1).

The regression analyses (Enter method) revealed that optimism, self-esteem, positive state of mind, negative state of mind, anxiety and depression were significant predictors of CS, BO and STS (Table 2). The amount of variance explained by the tested predictors was 29.8% for CS; 38.5% for BO and 24.1% for STS. A Bonferroni correction ($\alpha = 0.05/6$) was conducted to adjust the significance level of the p-value for each predictor to ≤ 0.008. The significant predictors of CS were a positive state of mind ($\beta = 0.438$; $p < 0.001$) and depression ($\beta = -0.212$; $p = 0.006$). BO was significantly predicted by a negative state of mind ($\beta = 0.225$; $p < 0.001$) and positive state of mind ($\beta = -0.214$; $p = 0.001$). The only statistically significant predictor of STS was a negative state of mind ($\beta = 0.223$; $p = 0.002$).

4. Discussion and conclusion

This research presents the findings of a national Slovak research project focused on the positive and negative consequences of professional helping. The aim of this study was to identify the significant psychological correlates and predictors of compassion satisfaction, burnout and secondary traumatic stress in Slovak helping professionals working in social-care institutions. In line with the results of previous studies (Hegney at al., 2014; Köverová, 2016; Tremblay & Messervey, 2011), significant correlations were found between CS, BO and STS; and optimism, self-esteem, emotional well-being (positive and negative state of mind), anxiety and depression. CS, BO and STS were also predicted by the tested psychological variables and especially by emotional well-being (positive and negative state of mind). The important role of emotional well-being in the prediction of CS, BO and STS among helping professionals was also noted in a study by Köverová and Ráczová (2017).

CS was most strongly correlated with, as well as being best predicted by, a positive state of mind. Its second most significant predictor was the level of depression. This finding suggests that the absence of depression symptoms is associated with high levels of CS in helping professionals whereas increased severity of depression symptoms can reduce the level of CS. BO was most strongly related to anxiety. However, its best predictors were the positive and negative state of mind. STS was most strongly correlated with anxiety and negative state of mind while the latter was also its only and strongest significant predictor. These findings highlight the importance of emotional well-being in promoting CS and reducing BO and STS in helping professionals. A high frequency of experiencing positive emotions at work (happiness, joy, pleasure, energy) is associated with high levels of CS and low levels of BO. On the contrary, a high frequency of experiencing negative emotions at work (fear, anger, sadness, shame, guilt, pain) can increase the levels of BO and STS. However, it is important to consider the role of optimism, self-esteem, anxiety and depression in relation to CS, BO and STS based on their mutual relationships.

These findings will be used in upcoming evidence-based intervention programs for helping professionals in Slovakia. The programs will mainly be focused on working with emotions to promote CS and to reduce BO and STS (e.g. identification of the sources of the positive and negative emotions at work; possibilities of promoting positive experiences at work; relaxation; autogenic training). Activities aimed at positive thinking development (optimistic expectancies) could also be helpful. The training of professional competencies (communication, conflict management, assertiveness training, time management, coping with work stressors) to improve the self-esteem of helping professionals could also help them increase their CS and decrease BO and STS.

One of the limitations of the study was the gender disproportion towards women in the sample. This reflects the predominance of women in helping professions in Slovakia and did not allow us to analyze the predictors of CS, BO and STS separately for each gender. Secondly, different types of helping professions were involved in the research. Although all of them worked in social-care institutions, there could be some differences in the sources and predictors of CS, BO and STS according to the occupation. Future research should address these issues.

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EVENT-TYPE, SELF-EVENT CONNECTIONS AND AUTOBIOGRAPHICAL REASONING AS PREDICTORS FOR VARIABILITY OF LIFE NARRATIVES ACROSS TIME[1]

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Abstract

Individuals are consistent in the ways they narrate events from their personal lives, which is indicative to higher well-being and integrity; However, within person variability across time in narration might be pointing on higher adaptability and flexibility in constantly changing circumstances. The study, thus addresses the question: whether intra-individual variability in narration of personal life events is linked with event type, strength of self-event connections and degree of autobiographical reasoning (meaning-making). The life story narratives of 32 adult participants living in Georgia were recorded and analysed with three years interval. Twenty-four memories (12-12 each time point) from each participant were selected and coded for event type, presence of self-event connections and autobiographical reasoning. Also, all narratives were coded for narrative structure, and major themes. One-third of stories were repeated at second telling of one's life story, and repetition of memories were not related to event type. Stories containing self-event connections were mostly the stories of stability rather than stories of change at first telling, whilst at second telling stories of stability and change were distributed evenly, and positively associated with sophistication of meaning. Narrative features (self-event connections, autobiographical reasoning or meaning making, structure or positive resolution, and thematic lines) for first and second telling positively correlated (controlling for event type) and were invariant, with one exception: Stories depicting the reflection on self and values were more frequent at second telling. Besides, sophistication of meaning, as part of autobiographical reasoning at second telling can be reliably predicted by the combination of the sophistication of meaning at first telling and rate of repetition of the stories at second telling, and these explains 70% of variation of it.

Keywords: Intra-individual variability, autobiographical reasoning, self-event-connections, narratives.

1. Introduction

As decades of research on personality show, personality traits are substantially stable across time and situations in adult lives (e.g. Allemand, Steiger, & Hill, 2013); However, when we move from dispositional traits to the life narratives, as McAdams's (2013) personality framework suggests, one can observe that life stories tend to be more opting to change and vary, since life is moving forward and new life experiences aggregate. Besides, new events may lead to the changes in the self-concept and rise new insights into one's personality and identity (Pasupathi, Mansour, & Brubaker, 2007). This, in turn, leads to revision of one's life story.

Studies show that individuals are quite consistent in the ways of narration events from their personal lives (e.g. Kober & Habermas, 2017; McLean, Pasupathi, Greenhoot, & Fivush, 2017), which is indicative to higher well-being and integrity; However, within person variability across time in narration might be pointing on higher adaptability and flexibility in constantly changing circumstances. Persons are expected to tell the stories of their lives full of coherency that relates life events to each other and the one's self, and thus contains the meaning.

There are two lines of studies speaking of the pros and cons of within person variability of life narratives. As recent studies suggest more variability in narration of the stories in different domains predicts less adaptability, whilst thematic consistency points out more positive adjustments (see McLean, 2008). Higher levels of variability are the indicators for more flexibility and adaptability (McLean,

Pasupathi, Greenhoot & Fivush, 2016). As McAdams states (McLean & Syed, 2015), life narratives are in constant development, and it is known that individuals tell the very same stories differently for different audience (McLean & Jennings, 2012;), across time (Josselson, 2009; McAdams et al., 2006) and while telling different types of memories (Waters, Bauer, & Fivush, 2013). All these clearly show that stories can change.

2. Personal narrative – life story and its characteristics

Majority of studies aiming at exploration of personal narratives or the most individualized layer of personality (McAdams, 2013), are based on the concept of narrative identity. Personal narrative or narrative identity is theoretical concept and refers to the cognitive structure or script (Bauer, McAdams, & Pals, 2008), which implies the dynamic life story that individuals construct to make sense of her/his life. It is one's internalized, developing and integrated story that gives meaning and purpose to one's life. It unifies individual's reconstructed past, perceived present and anticipated future and provides the sense of continuity and coherency over time and across situations (Pasupathi, Mansour & Brubaker 2007).

Presented study targets within person variability through tracing some of the characteristics defining the nature of personal narrative. These are as follows: theme represented as event type (McLean & Pratt, 2006), structure as positive resolution of the story (McAdams, 2008), and autobiographical reasoning reflected in the process of meaning making out of lived experience (McLean & Been, 2009), and self-event connections (Pasupathi & Mansour, 2006).) that reflect the process and ability of the narrator to link together her/his experience and self, and find either causal or temporal coherence between these two.

3. Stability and variability of life story – What varies and how?

Theoretical framework of the presented study, narrative identity model of personality (McLean & Syed, 2016) is based on the implicit assumption that the life story itself is moderately stable across the life span, and the degree of variability of narrative variables can be found across time and situations.

Basically, life stories may vary in three ways (Kober & Habermas, 2017; Waters, Kober, Raby, & Habermas, in press): (a) How life is narrated, interpreted, and evaluated by narrator; (b) The choices narrator is making when picking up the central themes for narration, and (c) What events do narrator select and de-select to include in the life story. The presented study focuses on the latter. To measure variability/stability of narrative characteristics requires comparing repeated life stories across some periods of time. This requirement prompt to design selection and the mode of analysis later.

4. Research objectives

The main research question was: Whether intra-individual variability in narration of personal life events is linked with event type, self-event connections and degree of autobiographical reasoning measured via meaning-making? Hence, the study was aiming at tracing the variability of life stories told three years apart. Accordingly, the main objectives were: (a) To trace the repetition of stories from first (T1) to second (T2) telling of lived experience; (b) To reveal associations and differences (if any) between narrative features at T1 and T2; (c) To assess variability of narrative features, such as self-event connections, event type and meaning making, from T1 to T2, and (d) To test prediction values of narrative features at T1 to predict those at T2.

5. Method

5.1. Participants
Thirty-two adult participants, all ethnic Georgians were sampled based on availability and snowball sampling from general population, with age range 28-82 (M=57,6(17)), 2/3 were females. The half of the sample was married and half of it was single. All participants hold some level of higher education. As for employment, ½ was employed, ¼ was unemployed or retired. Rest of the sample were graduate or postgraduate students.

5.2. Measures and procedures
Interview Protocol. McAdams's (2008) Life story interview protocol was administered. This is a semi-structured interview with open-ended written questions that identifies the life chapters, key episodes (high, low and turning points, positive and negative childhood experiences, vivid adult memory, and

mystical/religious experience), challenges (life challenge; challenges associated with health, loss, failure, regret), main characters, future plots, an account of one's fundamental religious, ethical and political values and the ways they formed, and identifying of central theme. After reading, explaining and signing informed consent form, each participant received standardized general introductory oral prompt, which was followed by more specific prompts followed regarding life chapters, key points of the life, challenges, values, ideology and future.

All original English instructions, prompts and questions were translated into Georgian and pretested (Khechuashvili, 2016c, 2017; Gogichaishvili, Khechuashvili, Mestvirishvili, 2016). The group of four graduate students were trained and experienced to work with participants using this protocol.

Demographics. Gender, age, marital status, education, type of education, average monthly income, faith and habits associated with it, general health condition, and place of residence and living conditions of participants were recorded.

Informed Consent. Individuals participated in the study at both time points after reading and signing written informed consent. Research assistants answered all questions regarding research procedures, withdrawal from the study, data ownership, anonymity and confidentiality, publishing, etc. The written form was piloted and tested in advance.

Place and Time. Interviews were held and recorded in urban and rural parts of the country. The first wave was completed in 2014 and second one in 2017-2018. All interviews were conducted at the convenience of the participants at their homes. Each session took in average 2-2.5 hours, including introduction, gathering demographic data, interview itself, and debriefing.

5.3. Narrative coding

Coded memories and the level of analysis. Each research participant provided 24 stories (12 at first telling, T1 and 12 at second telling, T2). The story served as the level of analysis. Eight key points (McAdams, 2008) and four challenge stories were targeted: Main life challenge, health problem, loss and failure. Altogether 768 memories were recorded (384 for each time point). Two independent raters coded 100 stories and arrived at acceptable levels of reliability in case of each coded variable.

Event type or thematic lines. All targeted narratives were coded for whether the memory event was about relationships, self and values, achievement, autonomy, mortality, and tension/discomfort (overall k_{T1}=.89 and k_{T2}=.69) (McLean & Pratt, 2006).

Self-Event connections were coded according the coding system proposed by Pasupathi and Mansour (2006). It implies three categories: No connection to the self, a stability story and a change story (overall k_{T1}=.73 and k_{T2}=.71).

Autobiographical reasoning measured via sophistication of meaning or meaning making was coded based on McLean and Pratt's (2006) adaptation of the system proposed by McLean and Thorne (2003) (see also, McLean et al, 2016). Each story was coded on a 4-point scale that represents the degree of meaning-making (overall k_{T1}=.80 and k_{T2}=.67). A score of 0 was assigned to narratives that contained no explanation of the meaning of the event to the self. Narratives were scored as 1 if there was mention of a lesson that the narrator learned from the event. A score of 2 was assigned to stories that contained "vague meaning"; Narratives of this sort describe some growth or change in the self, but the specifics of the change are not clear. Narratives were scored as 3 if there was evidence that the narrator had gained specific emotional, psychological, or relational insight from the lived experience that applied to broader areas of the his/her life.

Redemptive structure of narrative or positive resolution. The coding scheme for redemptive structure of narratives is derived from theoretical writings on redemption scenes and commitment scripts (McAdams, Diamond, de St. Aubin, & Mansfield, 1997) and the literature on posttraumatic growth (Jayawickreme & Blaickie, 2014). The told story was rated as having redemptive structure and was assigned code 1 if there was movement from negative scenes toward positive one either in causal or time sequential mode (overall k_{T1}=.88 and k_{T2}=.68). The code was assigned to the narrative if there was no such sequential transformation in the storytelling (Khechuashvili, 2016c, 2017; McAdams, 2008).

6. Results

Descriptive Statistics. Almost one-third of stories (104 out of 384) told at first telling were repeated at second telling, and repetition of specific stories were not related to memory type ($\chi^2(11) = 19.153$, $p = .058$). Descriptive statistics and frequency distributions are presented in Table 1.

Variability of Life Narratives. Narrative features – event type, self-event connections, meaning making, and positive resolution – were kept stable at second telling after three years (-.907 < $t(384)$ < 1.578, p's > .116, CI [-.078 — .182]), with one exception in event type: Stories depicting reflection of

self and values were more frequent three years later ($F(6) = 7.625$, $p = .000$). Besides, at first telling self-event connections were established mostly in the stories of stability ($\chi^2(2) = 11.656$, $p = .003$), whilst there was no statistically significant difference when telling the story of their lives three years later.

Table 1. Descriptive statistics for event type, meaning making, self-event connections and positive resolution at first and second telling (384 stories per time point).

Variable	Frequency (%)	
	T1	T2
Event type – thematic lines		
Relationships	85 (22.2%)	70 (18.3%)
Self and values	23 (5.6%)	58 (15.0%)
Achievement	38 (10.0%)	38 (10.0%)
Autonomy	4 (1.1%)	8 (2.2%)
Mortality	51 (13.3%)	42 (10.6%)
Tension/discomfort	53 (13.9%)	47 (12.2%)
Other	130 (33.9%)	121 (31.7%)
Meaning making		
No meaning	213 (55.6%)	206 (53.9%)
Lesson	109 (28.3%)	95 (24.4%)
Vague meaning	34 (8.9%)	53 (13.9%)
Insight	28 (7.2%)	30 (7.8%)
Self-event connections		
None	87 (22.4%)	114 (29.7%)
Stability narrative	160 (42.2%)	127 (33.0%)
Change narrative	137 (35.4%)	145 (37.3%)
Positive resolution – structure		
Presence	98 (25.6)	66 (17.2%)
Absence	286 (74.4%)	318 (82.8%)

Note: The table contains only statistically difference distributions, $p < .01$.

Predictors. Multiple hierarchical regression revealed that autobiographical reasoning measured through meaning making at T2 can be reliably predicted by the combination of the meaning making at T1 and rate of repetition of the stories, and this explains 70% of variation ($F(1) = 15.600$, $p = .000$) (Table 2).

Table 2. Meaning making at first telling and repetition of stories as predictors for meaning making at second telling.

	B	SE B	β
Step 1			
(Constant)	15.552	1.840	
Repetition	1.985	.503	-.598*
Step 2.			
(Constant)	7.882	3.398	
Repetition	-1.431	.505	-.431*
Meaning, T1	.720	.278	.395*

Note: $R^2 = .358$ I for step 1, $\Delta R^2 = .028$ for step 2 ($p < .001$) *$p < .001$.

7. Discussion

Thus, research participants repeated one-third of stories three years after the first telling (see also Gogichishvili et al., 2016; Khechuashvili, 2016c; Jananashvili & Khechuashvili, 2018). Thematic consistency was observed through data as well. This fits nicely with data obtained, for instance, by McAdams (2006) and Kober & Habermas (2017). Besides, regardless the story was told as high, low, or whatever point, aspects of autobiographical reasoning – self-event connections and meaning making – were stable characteristics of one's life narratives. In other words, telling one's life story three years apart does not affect the depth of reflexive elaboration and meaning making and the capacity of linking self with lived experiences. These findings correspond to the empirical knowledge aggregated in the field of narrative study of lives (cf. Kober & Habermas, 2017; McLean, et al., 2016; Waters et al., in press), and suggests that the capacity to reflect on one's own lives experience and make sense out of it is relatively stable characteristic of the person, and the extent of meaning making at next telling of one's life story can be predicted by previous experiences of reflexive elaboration and the rate of repeated narratives told in frame of one's life story.

At first telling research participants tended to tell the stories of explaining self-stability rather than change, whilst at second telling stories representing self-stability and change were distributed evenly. Besides, second telling involved more stories of self and values. Intra-individual variability was

associated only with event type, with the stories of self and values. As couple of recent studies show (Khechuashvili, in press; Kober & Habermas, 2017), invariancy of event type and thematic or content consistency is linked with normativity of the events told in life stories. In other words, people tend to repeat over and over again events from cultural life script of given culture (cf. Tchumburidze & Khechuashvili, 2016).

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BURNOUT SYNDROME IN RELATION TO SELF-CARE ACTIVITIES IN HELPING PROFESSIONALS

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Abstract

The purpose of the study is to explore the level of burnout syndrome among Slovak helping professionals and also to clarify the relation between components of burnout syndrome and performed activities of self-care. Research participants were 745 workers of helping professions in Slovakia thereof 89% women (social workers, psychologists, therapists and health professionals) and the age range was 20-65 years (M = 44.04; SD = 10.33). The length of experience in helping professions ranged from 1 to 44 years (M = 13.1; SD = 10.49). The respondents completed the Slovak adaptation of Maslach burnout inventory (MBI-HSS, Maslach, Jackson, & Leiter, 1996, including Emotional Exhaustion, Depersonalization Personal Accomplishment) and the Performed Self-Care Questionnaire (Halachová, Lichner, & Lovaš, in press, psychological, work, physical, health). The assumptions were confirmed. In general the results showed a slight level of exhaustion, low levels of depersonalization and moderate to high level of personal accomplishment. The results also suggest that the Slovak helping professionals perform more psychological than physical self-care activities. Analyses confirmed significant relations between four factors of performed self-care and three components of burnout syndrome. In general, linear regression analyses indicate that performed self-care is significant predictor of burnout and the most important protective factor of burnout is psychological self-care and self-care activities relation to work. This information is the basis for the preparation of preventive programs, what is the goal of the broader grant project, in which the presented research was realized.

Keywords: Burnout syndrome, self-care activities, helping professionals.

1. Introduction

One of the most commonly reported negative consequences of the execution of helping professions is burnout syndrome (Lourel & Gueguen, 2007). It is the professions in the field of social work, health, nursing or other, whose main characteristic is the intensive contact with the client/patient, in terms of the origin and development of the burnout syndrome to the risky ones (Maslach, Schaufeli, & Leiter, 2001; Volpe et al., 2014). The present study is based on one of the most popular approaches to date, which represents Maslach´s model of burnout (Maslach, Leiter, 2017). The author of the model describes burnout as a three-dimensional construct, consisting of emotional exhaustion, depersonalization, and reduced personal level of satisfaction with the performance and competence at work, usually occurring at professionals working with people.

The role of helping workers is to take care of others, but to be able to do so, they must keep themselves in a mental and physical well-being (Wisse et al., 2012). Barnett & Cooper, (2009) remind that ethical practice requires helping professionals to monitor their physical and mental state in order to maintain competence and ability to provide clients with an adequate level of service. That is why performed self-care is considered to be a natural starting point for the prevention and intervention of burnout syndrome or other negative consequences of the helping (Jones, 2005). This construct is defined as a set of intentional steps related to the care for physical, mental, and emotional health (Lovaš, Hricová, 2015). The problem of self-care in relation to burnout syndrome as one of the negative consequences of the helping is developed e.g. in the studies of Maltzman (2011) and Moor et al. (2011). Preventive effects of self-care activities on the experience of burnout syndrome have been confirmed in many studies (e.g, Carrol et al., 1999; Barnett & Cooper, 2009). Research on relationships between burnout (or also another negative consequences of helping) and self-care in Slovakia is scarce. Therefore, the purpose of the present study was to explore the level of burnout among Slovak helpers and also to clarify the relation between components of burnout syndrome and four areas performed activities of self-care (psychological, work, health and physical, Halachová et al., in press) and concurrently to identify the most important predictors of burnout syndrome.

2. Method

2.1. Participants and procedure

Presented research is part of the Slovak national research project investigating the role of self-care in preventing the negative consequences of helping. The project is focused on helping professionals working in institutions providing social care in Slovakia (i.e. social workers, psychologists, therapists, educators and health professionals). So far, 748 helping professionals in Slovakia have participated. The participation was voluntary and anonymous.

Among participants, 88% were female, 11% were male. The age of participants ranged from 20 to 65 (M = 44.07; SD = 10.34). The length of work experience in helping professions ranged from 1 to 44 years (M = 13.1; SD = 10.49); eight participants did not report the length of their work experience.

2.2. Measures

Maslach burnout inventory (MBI-HSS; Maslach, Jackson, & Leiter, 1996), Slovak translation. The instrument consists of 22 items measuring the level of burnout syndrome, i.e. the level of emotional exhaustion (e.g. "I feel emotionally drained from my work."), depersonalization (e.g. "I don´t really care what happens to some recipients.") and reduced personal accomplishment (reverse coded, e.g. "I feel I´m positively influencing other people´s lives through my work."). Respondents indicate the frequency of experiencing work-related feelings using a 7-point scale (0 = never; 6 = every day). The internal consistency estimates (Cronbach alpha) for emotional exhaustion, depersonalization and personal accomplishment were .90, .79 and .71, respectively (Maslach et al., 1996). A translation agreement number TA-673 was purchased to create and use the Slovak version of the questionnaire. The English version was created by back-translation. For more information about the results of validation of the Slovak version of the tool see the study Ráczová, Köverová and Hricová (in press).

Performed self-care questionnaire (VSS, Halachová, Lichner, & Lovaš, in press) was used to measure the frequency of engaging in self-care activities, i.e. activities in the area of self-care that an individual performs intentionally and of his/her own accord. Present research was therefore based on the concept of self-care as a comprehensive implementation of these activities (Moor, 1995). Performed self-care questionnaire consists of 31 items focusing on the following four areas of self-care: psychological (factor F1, e.g. "I suppress bad mood."), work (factor F2, e.g.: „I use professional education to cope with workload"), health (activities performed in the situation of health problems, factor F3, e.g. "I avoid situations with risk of disease.") and physical well-being (factor F4, e.g. "I do exercise because of condition."). The items of the questionnaire are answered by 5-point scale (1 = never; 5 = always). Higher scores indicate higher levels of self-care activities in each of the four factors. Questionnaires and factors has good internal consistency (Cronbach's alpha .76 - .93; Halachová et al., in press). In the current research, the Cronbach alpha estimates were .881 for psychological self-care, .734 for work self-care, .706 for health self-care and .737 for physical self-care.

2.3. Statistical analyses

The data were analysed using IBM SPSS Statistics 21 software. Linear regression analysis (enter method) was used to test if performed self-care significantly predicted burnout. Linear regression analyses were run separately for exhaustion, depersonalization and personal accomplishment as a factors of burnout syndrome. The predictor variables were the fourth domains of performed self-care (psychological self-care, self-care activities at work, health sustaining activities and physical well-being).

3. Results

The results of the analysis suggest that, in general, Slovak helping professionals experience only low levels of burnout syndrome. A closer look at the individual components of MBI-HSS shows that respondents reported only slight emotional exhaustion (M = 2.09; SD = 1.21), very low level of depersonalization (M = .85; SD = .90) and a medium level of personal accomplishment (M = 4.36; SD = .95). More information is provided in the Table 1. Due to the significant disproportion of women and men in the sample it was not possible to analyse differences between genders. This ratio reflects the real representation of women and men in the population of Slovak helping workers.

For completeness of information, we state that analyses of length of practice on the same research sample have been performed and published in another study (Köverová & Ráczová, 2017). We have found significant differences only in emotional exhaustion as one of the three components of burnout syndrome. Specifically, the "beginners" significantly differ from their experienced colleagues in the component emotional exhaustion when the professionals with longer working experience (10-20 or more years) show higher levels of exhaustion than the starting professionals.

Table 1. Means, standard deviations and internal consistency (α) of used measures (n = 745).

Measure subscales	Mean	SD	Min	Max	Scale range	α
Emotional exhaustion	2.09	1.21	.00	5.44	0-6	.878
Depersonalization	.85	.90	.00	4,60	0-6	.601
Personal accomplishment	4.36	.95	1.00	6.00	0-6	.768
Self-care – psychological	4.22	.52	1,06	5.00	1-5	.881
Self-care - work	3.45	.76	1.00	5.00	1-5	.734
Self-care – health	3.90	.64	1.43	5.00	1-5	.706
Self-care - physical	3.11	.87	1.00	5.00	1-5	.737

Mean scale scores on performed self-care questionnaire VSS (Table 1) were high to moderate for all four domains of self-care activities (M = 4.22; SD = .52 for the psychological self-care; M = 3.45; SD = .76 for the self-care activities at work; M = 3.90; SD = .64 for the health sustaining activities and M = 3.11; SD = .87 for the physical self-care). The comparison of the four mean scale scores indicated that the most used self-care activities among helping professionals were the psychological self-care activities whereas the least used were the physical self-care activities. A detailed view of individual items throughout the questionnaire shows that the highest score respondents reported in the item No. 17 "I create a good atmosphere in relationships with loved ones" (M = 4.51; SD = .703), item No. 8. "I get along with colleagues, so that was a good atmosphere in the workplace" (M = 4.49; SD = .728), item No. 6. "I create a good atmosphere in contact with clients" (M = 4.39; SD = .750), item No. 19. "I'm positive in contact with co-workers" (M = 4.31; SD = .770) and item No. 20. "In relation to my colleagues, I respect the expected roles" (M = 4.30; SD = .746). All of these items belong to the Psychological self-care factor.

The results of the linear regression analysis for emotional exhaustion are presented in Table 2. The four tested predictor variables – psychological self-care, self-care activities at work, health sustaining activities and physical self-care activities - explained approximately only 6% of the variance of the emotional exhaustion ($R2 = .060$). Nevertheless, we can conclude, that a lower level of emotional exhaustion was best explained by the higher frequency of performed self-care activities at work (β = .112; p < .01). Significant negative predictors of the emotional exhaustion were also two areas of self-care: health sustaining activities (β = -.111; p <.01) and psychological self-care (β = - .051; p < .01).

Table 2. Results of linear regression analysis for emotional exhaustion, depersonalization and personal accomplishment (n = 745).

	Predictors	R^2	B	β	t	p
EX	F1 psychological	0.060	-.119	-.051	-1.115	<.01
	F2 work		-.178	-.112	-2.584	.010
	F3 health		-.209	-.111	-2.656	.008
	F4 physical		-.076	-.055	-1.414	.158
DE	F1 psychological	0.053	-.422	-.246	-5.32	<.01
	F2 work		.111	.154	.420	.675
	F3 health		.053	.059	.157	.875
	F4 physical		.144	.163	.447	.655
PA	F1 - psychological	0.200	.498	.272	6,410	<.01
	F2 - work		.331	.263	6,584	.000
	F3 – health		-.033	-.022	-.571	.568
	F4 - physical		-.026	-.024	-.657	.511

Table 2 presents also the results of the linear regression analysis for depersonalization. The four tested predictor variables explained almost only 5.4% of the variance of the depersonalization ($R2 = .053$). The only significant predictor of depersonalization was the psychological self-care. A lower level of depersonalization was explained by the higher frequency of the performed psychological self-care activities (β = -.246; p < .01).

The results of the linear regression analysis for the third component of burnout syndrome - personal accomplishment - are listed in summary Table 2. In this case, the four predictors

variables explained 20% of variance of the criterion variable (R2 = .200). The significant positive predictors of personal accomplishment were two of the four areas of self-care. A higher level of personal accomplishment was predicted by a higher frequency of the performed psychological self-care (β = .272; p < .01) and self-care activities relation to work $\big($$\beta$ = .263; p < .01).

4. Discussion and conclusion

The main aim of the present research was to determine the level of experience of burnout syndrome and the level of preformed self-care activities in Slovak helping professionals. Our purpose was also to examine the relationship between burnout and performed self-care and to identify the most important predictors (among four domains of self-care) of three components of burnout syndrome.

Based on the presented results we can conclude that, in general, our findings are positive. It can be said that Slovak helping professionals experience only a low level of burnout syndrome (specifically slight level of exhaustion, low levels of depersonalization and moderate to high level of personal accomplishment). If we taking the length of practise into account, the results show a higher level of emotional exhaustion among professionals with longer working experience, which was also presented in other studies (Köverová, Ráczová, 2017; Tuvesson et al., 2011; Śliwiński et al., 2014).

We also found that the most used self-care activities among Slovak helping professionals were (in order from the most frequent) the psychological self-care, the health sustaining activities and self-care activities relation to work. Specifically, from the point of view of individual items, the most used were self-care activities focused on interpersonal relationships at the workplace (to clients and colleagues). The least they used the physical self-care activities. This corresponds to the findings of some research (Lawson & Myers, 2011; Bloomquist et al., 2015) that the implementation of activities in the psychological and working area reduces the level of burnout syndrome in helping professionals. At the same time, helping workers consider these activities to be the most useful for the efficiency of their profession (Killian, 2008). Also the results of study of Hricová and Vargová (2014) showed that Slovak psychologists prefer psychological before physical self-care. One reason is the belief that these activities improve their ability to help others professionally.

Further results of the research in general indicated that that performed self-care is significant predictor of burnout and the most important protective factor of burnout is psychological self-care and self-care activities relation to work. It should be said that these predictor variables explain only small amount of variance of the exhaustion and depersonalization (since their interrelationships were significant but weak), but on the contrary they explain higher level of variance of the personal accomplishment. It is possible to conclude that experiencing of a higher level of satisfaction with work performance and competencies is a positive consequence of preforming self-care, especially in psychological and working areas of self-care. This is in line with number of studies (eg, Alkema et al., 2008, Griner, 2013) in which the preventive effects of self-care for the experiencing of burnout syndrome have been confirmed. Also, Richards et al. (2010) in their study have confirmed the existence of relation between burn-out syndrome and self-care activities, and have suggested that these activities also enhance the professional well-being of the professional. Similar results were also found in the case of compassion fatigue and compassion satisfaction: by perform self-care activities was possible to increase the level of satisfaction and to reduce the degree of compassion fatigue in Slovak helping professionals (Köverová, in press). In Slovakia, several researchers in social work have studied this problem e.g. Šiňanská, Kočišová, (2017) and Lovašová (2016) who also emphasize the need and important place of self-care in the preparation and work of social workers.

Also, our results and information are the basis for the preparation of preventive programs for helping professionals in Slovakia, what is the goal of the broader grant project, in which the presented research was realized.

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AN EVALUATION OF MENTAL HEALTH SERVICES WITHIN THE KUWAIT PRISON SYSTEM

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Abstract

The World Health Organization (WHO) suggests that prisons are bad for mental health due to factors such as overcrowding, violence, enforced solitude, lack of privacy, and inadequate health services among others (WHO, n.d.). It is also suggested that prisons are sometimes used as a dumping ground for individuals with mental disorders which can cause these disorders to go unnoticed, untreated, and could lead to further development of these mental disorders. Drucan and Zwemstra (2014) posit that recent studies have consistently shown poor mental health among prisoners is considerably higher than in the community. With the already lacking mental health services in Kuwait, it is predicted that the Kuwait prison system is also lacking mental health services for the prison population. Several of the factors that WHO (n.d.) proposed as affecting the mental health of prisoners are apparent throughout the Kuwait prison system including overcrowding in which Kuwait has c. 5,400 prisoners with a capacity of 3,200 (U.S. State Department, 2016). An evaluation of the current situation of the mental health services within the Kuwait prison system will shed light on a country and region that has not been studied before in this regard. The aim of the study is to provide scholarly insight into the mental health services within the Kuwait prison system and to develop recommendations to improve the mental health services within the system. Although there have been several general recommendations developed by WHO and other researchers, none of these recommendations consider the Kuwaiti culture. The current researchers therefore not only provide recommendations based on prior research but make these recommendations culturally relevant for the prison population in Kuwait.

Keywords: Prisoners, mental health, cross-cultural, cultural relevance.

1. Introduction

Mental health has always been regarded as taboo especially in the Middle East. The idea of seeking out treatment is still new and there is a huge fear of friends and family finding out that they are getting treatment so it is all done in secrecy. Kuwait is a small country with a population of 4,052,580 million, according to the World Bank (2016), and of those, around 2 million are expatriates. There are about 69.5% of expatriates ranging from Arabs, Asians and Africans and Arabic is the official language but English is widely spoken (CIA World Factbook, 2017). Because of poor service and lack of confidentiality in the mental health centers in Kuwait, most people turn to either the family or a Sheikh to help them deal with mental illness. However, prisoners are not able to do this and their services are very limited. Stigma and discrimination limit healthcare access in Kuwait and mental disorders are much higher in prisons than they are in the public which is similar to other countries. The World Health Organization (WHO) suggests that prisons are bad for mental health due to factors such as overcrowding, violence, enforced solitude, lack of privacy, and inadequate health services among others (WHO, n.d.; US State Department, 2016). It is also suggested that prisons are sometimes used as a dumping ground for individuals with mental disorders which can cause these disorders to go unnoticed, untreated, and could lead to further development of these mental disorders. Drucan and Zwemstra (2014) posit that recent studies have consistently shown poor mental health among prisoners is considerably higher than in the community.

In England, 3.7% of prisoners have psychotic illness, 10% major depression and 65% have personality disorder (Ginn, 2012). A lot of people develop mental disorders when entering prison or the disorder worsens over time during their stay especially when confined in a small cell for 23 hours a day. To get proper treatment for those who suffer from mental illness, they should be transferred to a proper

mental health clinic but the process could take months and that causes the prisoners and their families to feel distressed (Ginn, 2012). The prisoners that are getting treatment could be released during the process which means their treatment stops. When that happens, they usually go back to the same environment they were in before prison and there is a higher chance they will return to prison (Ginn, 2012). A lot of these prisoners come from a poor background including those who were unemployed, homeless or were put in foster homes as children. Their levels of education are extremely low and most of them go to prison because of violence. Because of that, treatment for prisoners is even harder than the public to understand (Ginn, 2012). They need extensive care and a lot of them have physical and mental health issues.

There is great fear around male prisoners appearing weak when diagnosed with mental health and getting treatment so a lot of prisoners refuse treatment. Either they pretend to be okay or they only ask for help when their condition gets a lot worse that they feel suicidal (Kupers, 2005). They are hard to study because researchers have a hard time being allowed to enter prisons, interviewing them, and understanding their daily struggles. Not only are the number of prisoners increasing but the number of prisoners that suffer from mental health is also increasing and their need of treatment is vital (Kupers, 2005). The ones that get treatment first are the ones that have obvious symptoms such as schizophrenia and bipolar disorder. As many prisoners turn to drugs and violence in prison to deal with the stress and have no control of what they eat, sleep, and do, this adds even more stress and mental health problems (Ginn, 2012).Those who need anger management or have substance abuse do get treatment but because of the limited staff, they might never get the treatment they need (Kupers, 2005). Not only might there be limiting staff, a lot of them are under qualified, don't have the right training and have low morale. When communication is poor between the prisoners and mental health care staff, they will not be properly assessed which means treatment is useless (Ginn, 2012).

Disrespect is a very big issue for prisoners. A lot of them feel as if there is no one willing to help them and so they resist treatment, especially when they are forced to talk to a clinician in front of their cell where other inmates can hear everything. They do not have a lot of power and feel disrespected by the police and security which leads to violence and the feeling of wanting to dominate others (Kupers, 2005). Confidentiality is also another big issue for prisoners and when the trust is broken, they will refuse to talk. Since mental health staff are required to report to other staff if they hear anything illegal or a threat towards security then prisoners will not be open. If prisoners hear of something illegal or are forced to do something against their will, they will not be able to ask what to do because they will be forced to say who the prisoner is which then leads to snitching. Snitching could cause a prisoner to die and is looked down upon. It is important to know prisoners feel like if they open up, they believe they will get in trouble by doing so because of the lack of confidentiality and thus refuse to talk to the mental health professional (Kupers, 2005).

To survive prison, some proclivities men feel like they need to show in prison include, 'extreme competition and greed, insensitivity to or lack of consideration of the experiences and feelings of others, a strong need to dominate and control others, a dread of dependency, a readiness to resort to violence, and the stigmatization and subjugation of women, gays, and men who exhibit feminine characteristics' (Kupers, 2005). When in prison, men who get into fights have nowhere else to go and walking away is not an option. This results in extreme violence and rage between prisoners. When they feel disrespected by the staff, it causes them lose control of their temper and that results in violence as well (Kupers, 2005). Thousands of prisoners who suffer from mental illness are either untreated or go undetected and because they are not getting the treatment they need, this could result in injury, death by violence, or suicide. A big reason why these prisoners are not getting the treatment they need is because of overcrowding (Specter, 2010). When it comes to prisons, the most important thing that is focused on is security. Mental health care is after security and when there is no mental health care available, prisoners have no choice of getting any treatment (Ginn, 2012). When a prison has severe overcrowding, there is a high risk of serious injury and even deadly harm not only to the prisoners but the prison staff as well. There is also a high risk of infectious diseases being spread including sharing needles between inmates putting them at risk of HIV and other infections (Specter, 2010). In the state of California, it was found that overcrowding is the main reason for its failure to provide proper health care to the prisoners.

There is a higher rate of suicide in prisons than compared to the public with around 47 deaths per 100,000 inmates in the US (Cummings & Thompson 2009). Not only are suicide rates high in prisons, it is argued that the number could be even higher because their deaths are often underreported. The perception of prisoners when they self-harm are malingering and when they are perceived this way, they most likely will not be taken to a mental health professional. Correctional officers do not have a lot of knowledge on the subject and is more likely to decide the prisoner is faking it or really needs mental health care (Cummings & Thompson 2009). When they are not reported, results can be fatal and so it is important for inmates to feel they are able to report their suicidal thoughts in confidence and be taken to a treatment center. They need to be assessed because those who self-harm do not know another way to cope

with their stress. According to Cummings and Thompson (2009), there are three reasons why a prisoner would self-harm: by being manipulative to get attention from the staff; a psychological relief to let out their anger; and to escape their reality.

It is extremely hard for men to talk about their emotions. They usually feel threatened when they are forced to talk about their problems. In other words, "inside and outside of prison men must tear down a certain amount of traditional male socialization if they are to succeed in therapy and in deeply intimate relationships" (Kupers, 2005). The first step to treatment is to be able to let the prisoner be comfortable enough to talk about their problems without any pressure to do so. An essential aspect of this is for the correctional officers being trained to notice signs of possible mental health issues and suicidal ideation. These can include 'a history of suicide attempts, giving away possessions, becoming withdrawn, talking as if they will not be around much longer when they are not expected to be transferred or released, receiving bad news, abusing substances while incarcerated, having a severe mental illness or poor coping skills, and dichotomous thinking' (Cummings & Thompson 2009). Second, they need to know that their sessions are confidential and that it will not affect them in any way. It is important to note that segregating suicidal and mentally ill inmates is not a solution and could do more harm than good. Third, prisoners need to be realistic in the outcomes of their mental health sessions and that there is only a limited amount of help they can receive. It is also very important that prisoners support each other, look out for each other and talk to each other where they'll feel more comfortable than talking to a correctional officer (Cummings & Thompson, 2009). Lastly, the mental health staff and prison staff should be able to help the prisoner and stand up for their rights if they have been mistreated. Unless the government and the courts decide to make a change, overcrowding will always be an issue (Kupers, 2005).

2. Method

The study was conducted in Kuwaiti prisons. The participants included all male correctional officers who were all over the age of 18. All participants were given verbal consent and confidentiality forms and were instructed that they may quit the interview at any time. All participants reported they had worked within the prison system for over 10 years. The participants were interviewed by the second author who speaks Arabic fluently. The research design was based on Creswell's (2013) qualitative analysis which includes thematic analysis. After the interviews were conducted, both authors conducted this analysis independently of one another which was followed by a discussion about each author's findings. These discussions lead to the formation of themes found in the data.

3. Results and discussion

Eight participants (n = 8) were interviewed with an average age of 41.4 (range 34 to 52 years). All reported working within the prison system for an average of 12.3 years and all participants have interacted with prisoners directly. When asked whether they believe Kuwaiti prisons are overpopulated, seven participants (87.5%) reported that they were overpopulated. When asked why, two participants reported slow procedures (such as paperwork for prisoners and the amount of regulations involved in prisons), three reported high rates of crime, and three did not know why. These findings are in accordance with previous studies. Overcrowding is associated with a number of aspects including an increase of violence among prisoners, mental illness gets deteriorates over time, and mental health care becomes less available (Specter, 2010). A few ways to help Kuwait reduce prison crowding is to build another prison, reduce sentencing for lesser crimes (such as alcohol related violations), or increase the speed in which paperwork is done. Six participants (75%) reported that the ethnic majority in Kuwaiti prisons were Asian and the average age of prisoners range from 25 to 45. When asked the average length of stay in prison, the answers were ranged from four days to six years. All participants were familiar with the healthcare system in the prison system. Regarding how health care staff are trained, there was little to no training. The most common kind of training is in a specialized institute and in basic first aid.

According to the participants, seven of eight (87.5%) believed prisoners commit suicide. Two participants mentioned they range from 20-30 suicides per year, one participant said 20% of the entire prison population, and another said ten prisoners per year. The reasons reported behind the suicides were psychological reasons, financial, social or crime related. All participants reported that prisoners have substance abuse issues with either cigarettes or drugs. Again, this finding is similar to previous studies with Hyde and Enomoto (2015) reporting 60% of inmates face substance abuse. Around 42% of prisoners who suffer from mental health conditions are more likely to smoke cigarettes which is suggested by the current study in Kuwaiti prisons.

When asked whether there were resources within the prison to help individuals who attempt suicide or practice self-harm, three participants (37.5%) responded no. To reduce the risk of suicide or

self-harm, it is important that the correctional staff recognizes, reduces, and addresses suicidal behavior. Prisoners should not be segregated if they are suicidal because isolation could worsen this condition (Cummings and Thompson, 2009). Cummings and Thompson (2009) posited several ways to prevent suicide which include providing eight hours of prevention training to staff, provide a mental health screening of prisoners upon arrival, suicide-proof cells, and observation every 15 minutes of suicidal inmates. Participants were asked what resources were available for individuals with outward mental health issues such as schizophrenia and OCD and all of them reported that they were sent outside the prison. They are either sent to a mental/psychiatric hospital, an ambulance is called, or a psychological doctor is brought to the prison. Like Kupers (2005) suggested of all prisoners, it seems that the prisoners in Kuwait who suffer from obvious mental illness are treated first because of the short supply in mental health service. The mental health budget and services are very low compared to the number of prisoners who need these services. Because of limiting staff, those who need mental health services might never receive it and receive no treatment throughout their entire sentence. When asked who about the individuals that help the prisoners with mental illness, five participants (62.5%) said doctors and when asked about the type of training, four participants (50%) said that training courses are taken in first aid. This find is similar to Ginn's (2012) suggestion that prison healthcare staff are underqualified and lack the proper training they need. For the mental health system in Kuwaiti prisons to improve, there needs to be qualified practitioners and isolation of prisoners should be reduced so that it is a healthier environment for prisoners who are struggling with mental illness.

There were a few limitations which need to be addressed. First, participants for the study were difficult to obtain due to several reasons. Even though anonymity and confidentiality were assured with each participant, the participants seemed quite suspicious. Most likely, they were afraid that the interviewer was working as a reporter. When asked if the interview could be recorded, they all said no. Second, the sample size was small due to the difficulty of obtaining participants as stated above. This limited the findings to this specific sample and although saturation was reached during the interviews, the findings may not be applicable to the entirety of Kuwaiti prisons. However, because the findings were in line with previous research, future studies focusing on Kuwaiti prisons should be conducted. Third, there were several ambiguous answers among the participants possibly due to cultural aspects of saving face. Some participants might not have wanted the Kuwaiti prison system and Kuwait in general, to be criticized. Lastly, since all the participants worked in a prison setting, they could be biased in their answers. However, because there were eight participants which is in accordance to Creswell (2013) and saturation was reached throughout the interviews, the methodology countered the bias.

The questionnaire has given an overview of what the mental health care system is like in Kuwait's prisons and how much improvement it needs for the prisoners that suffer from mental health. If prison overcrowding gets reduced, the chances of someone developing a mental health issue should decrease and rates of suicide should decrease too.

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THE LEARNED HELPLESSNESS GENESIS CONCEPT AS THE BASIS FOR MEDICO-PSYCHOLOGICAL FACILITATION AT THE UNIVERSITY

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Abstract

The opportunity to be successful in the course of development and meeting the reality, self-realization prospects and life self-implementation depends not so much on the level of basic intellectual potential, but on the personality features combining motivation to transformation of surrounding reality, sufficient level of the strong-willed aspiration focused on difficulties' overcoming, the active life position interfaced to continuous self-development and self-education. Bases of such active informative and active approach to formation of own future prospects are put and formed under the influence of a direct social environment.

One of the most wide-spread people's concerns is lack of motivation, law interest to life issues, and general decrease of learning and living activity, absence of involvement in life as a process. All the forums and social nets are full of bright evidences which justify the risk of lost of whole human generation in the role of active future creators, life investigators, who are responsible for their own life, physically mature and stable, strong in defending their life position and perspectives. What we see now is the generation of those who are learned to be helpless.

In the course of the learned helplessness genesis concept development we discovered new opportunities for finding emergency features in the cross point of the learned helplessness theory by M. Seligman, concept of cultural and historical development of a person by L.S. Vygotskij and method of transspective analysis by V.E. Klochko. The combination of three theories allowed creating The Technology of the Learned Helplessness Genesis Study which was widely tested on different samples of respondents, including representatives of the educational process participants at the Professor V.F. Voyno-Yasenetsky Krasnoyarsk state medical university (Krasnoyarsk, Russia).

Large variety of supportive, correctional and preventive actions, short-time and long-time programs aimed to decrease the learned helplessness manifestations were implemented in the system of medico-psychological facilitation of Krasnoyarsk state medical university. Students and teaching stuff of the university, patients of university clinic and healthcare family centre, clients of psychological centre were suggested different tools to overcome learned helplessness.

The learned helplessness genesis concept as the basis for medico-psychological facilitation at the university allows assimilation of new experience in a context of psychological consultation and the non-drug therapy directed to maintenance of self-actualization process, personality development, strengthening of psychological wellbeing and, as a result, opening of new life resources and potentialities of the personality.

Keywords: The learned helplessness genesis concept, medico-psychological facilitation, university.

1. Introduction

The learned helplessness as form of human life organization is the catalyst of psychological instability and somatic illness, it determines decrease in resilience of personality to harmful influences of the external environment, contributes to the development and exacerbation of psychological damages and somatic diseases of various etiologies. The helplessness is formed and "taught" gradually, under the influence of a factor of social response to failures in life events or features of somatic health rather than level of stress factor or disease nature and their objective influence on personality.

Studying the problem of the learned helplessness as a phenomenon being formed in ontogenesis, under the influence of external and internal determinants of development, such as social environment and physical condition of a human body, is important to consider conceptual provisions of the cultural and

historical concept of person's mentality origin in which an attempt of solving the problem of person's consciousness origin and development is made.

Studying the formation mechanisms and correction ways of "the learned helplessness" phenomenon demands taking into account an environmental factor, on the basis of studying patterns of behavior mastered by means of interaction with the environment, mechanisms of fixing and maintenance of these patterns, and also their combinations to the specific physiological state caused by somatic factors.

Martin Seligman (1975, 1993), the founder of Positive Psychology and the learned helplessness theory, considers that the optimistic or pessimistic attitude to reality is directly interconnected with perception of parental behavior models. Dr. M. Seligman specifies that this style is not only appropriated as behavior model, it "is improved" and becomes stronger in consciousness by means of such methods as criticism from parents, teachers and other representatives of an adult environment. The learned helplessness taking sources from pessimistic perception of life, takes roots in situations of life crisis, in the situations of stress provoked by death of the relatives, divorce in a family, recurrence of violence cases in a family, illness of relatives, low level of own health etc.

Whatever occurred in life of the child in the close intra family and external social environment it affects directly the formation of experience picture of the child, as certain integrity of perception of the whole world picture. It is important that in the children's relation there can't be a neutral emotional reaction. Cases of frequent, systematic negative experience steadily form the pessimism, being characterized by generalization. And, if the help in overcoming the negative attitude to a series of situations doesn't happen in due time, negative attitude, expectation of negative result, feeling of futility of any efforts to receive significant, good, valuable, desirable result (that is group of the learned helplessness markers) predetermines all reactions of the child to situations in the future. The similar relation is rather steadily fixed, including, and concerning education process that is a serious problem of an educational system and training at all stages of ontogenesis (M. Seligman, 1975, 1993).

According to the main concepts of cultural historical approach by Russian scientist L.S. Vygotskij the development of a person is based on interiorization, which is transformation process of inter psychological relations into intra psychological. In ontogenesis at first the adult affects the child with the word, inducing him to do something. Then the child adopts a way of communication and learns to influence the adult with the word. After that the child starts influencing the word himself. In the families, having child with weak somatic health, the psychological system is broken: deficiency of relationship revealed in problems of relations with mother, replacement of the father from psychological life of a family, posing child as weak and unable, which results violation of normal child identity formation. Connecting the ideas of Positive Psychology and cultural historical approach it is possible to claim that people having weak health "learn" helplessness gradually, under not the influence of somatic state, but under the determination of the factor of social response to features of somatic health (O. Volkova, 2013, 2014, 2015, 2016).

In development of a complex research technology aimed at revealing the process of the learned helplessness formation in the course of human life the transspective analysis is one of the significant tools, "performed through the analysis of human activities products which are kept in culture" and opening for the researcher space for reconstruction of "the world image of a human and way of human life in a historical transspection" (V.Klochko, 2014). Considering that everything is unpredictable and nothing repeats in the history, as it is obviously impossible to determine and predict the future of the person by his past, as well as the future of society relying on its historic facts, the transspective analysis opens certain opportunities in this direction.

A number of the contradictions arising by consideration of psychological phenomena, characterizing the complete person meaning existence continuity in space and time are removed when "it is only about the present which, however, undertakes with its tendency. Both the past and the future "contact" the present setting a perspective (context) of the analysis. However, a sheaf "past-present" and "future-present" aren't full from space-time position, designating a cut became in the first case, or a cut predicted, which still not became (and it is unknown whether it will be or what), in the second.

2. Objectives

The theoretical and empirical analysis of contemporary psychology confirms the importance of integrated system approach in diagnostics of the learned helplessness formation mechanisms in the course of personality development. Creation of the specific unique tools directed not only on a research of the factors which have made negative impact in the course of ontogenesis and acted as the catalyst of the helpless identity development but also on aim points for psychological correction within psychological consultation and non-drug therapy for the purpose of achieving the psychological wellbeing of the person seems extremely important. Psychological wellbeing in itself as a conscious state can't be followed by

feeling of helplessness priori, but, on the contrary, is a resource state, basic in the course of self-actualization of the personality (O. Volkova, 2013, 2014, 2015, 2016).

The offered psycho correctional, psychotherapeutic and psycho preventive programs which are logging in psychological assistance can be used in the course of medico-psychological facilitation of medical stuff, teachers, and patients having somatic diseases of a different etiology.

3. Methodology

The general provisions of the learned helplessness theory developed by M. Seligman, the concept of cultural and historical development of personality designed by L.S. Vygotsky and the basic principles of the transspective analysis highlighted by V.E. Klochko have been defined as the methodological bases of the learned helplessness genesis concept.

The methodology of this research was developed in the cross points of above mentioned concepts for finding new emergency features of new concept – concept of the learned helplessness genesis - which combines specific ideas of contemporary studies and allow to develop new scientific point of view on the learned helplessness phenomena and its genesis.

In our concept the genesis of the learned helplessness is a result of ineffective influence of social environment (family members, relatives, educators, tutors, doctors etc.) of the person on his activity, which has specific way of organization in situation of stress, out burn and somatic disease. The state of the learned helplessness has its roots in the past experience of the person, negatively effects its present life frustrating the process of self-implementation and self-actualization, and also can become the soil for negative consequences of possible variants of future life.

So, the system of medico-psychological facilitation against the learned helplessness genesis at the university should be aimed at all the groups of educational process members and be oriented on the past, present and the future experience of the facilitation system participants.

The system of learned helplessness prevention based on the concept of the learned helplessness genesis developed by Volkova O.V. was applied on the basis of the Krasnoyarsk state medical university within educational programs, medical and psychological support of the participants of educational process.

The technology of the learned helplessness genesis research which has been developed and approved within the concept and also the system of psychological prevention allow optimizing and increasing the efficiency of medico-psychological and pedagogical facilitation and its implementation within different groups of the population having signs of the learned helplessness genesis or being in the conditions promoting his emergence.

4. Discussion

The learned helplessness becomes a real problem destructing the whole human generation in the role of active future creators, life investigators, who are responsible for their own life, physically mature and stable, strong in defending their life position and perspectives. This problem becomes more urgent in the situation of medical university. Future doctors, patients of university clinic and their relatives, teaching stuff of the university sometimes demonstrate signs of the learned helplessness which manifestoes with depression, personal and professional out burn, high level of stress, lack of motivation, law interest to life issues, and general decrease of learning and living activity, absence of involvement in life as a process.

The medico-psychological facilitation based on the learned helplessness genesis concept was aimed at different categories of medico-educational process at the Krasnoyarsk state medical university (Krasnoyarsk, Russia).

Large variety of supportive, correctional and preventive actions, short-time and long-time programs aimed to decrease the learned helplessness manifestations were implemented in the system of medico-psychological facilitation of Krasnoyarsk state medical university. Students and teaching stuff of the university, patients of university clinic and healthcare family center, clients of psychological center were suggested different tools to overcome learned helplessness.

Medico-psychological facilitation organized in groups of students- future doctors was aimed at overcoming signs of the learned helplessness in specially designed training programs, psycho correctional programs and by means of personal psychotherapy. The general idea of this facilitation is educating future doctors in the question of potential danger of the learned helplessness as doctors so their patients, mastering skills of defining the signs of the learned helplessness and formation of competence in decreasing this state.

The training and correctional programs aimed at teaching stuff of the university were oriented at decrease of professional out burn as well as understanding the potential negative effects of the learned helplessness state. One of the directions of facilitation was aimed at teaching the university stuff to overcome the helpless state and to transit these skills to their students by demonstration of initiative, support, and active life position.

The directions of medico-psychological facilitation oriented at patients of university clinics and medical family centers suggest complex support for patients and their relatives on overcoming the state of the learned helplessness in the situation of disease. Psycocorrection and psychotherapy have such objectives as increase of motivation to recovery, decrease of anxiety, will-power development and design of new effective life strategies in situation of somatic disease.

The general line for implementation of the system of medico-psychological facilitation is based on the major idea of The Technology of the Learned Helplessness Genesis study: psychotherapy of the problems of the past life, psychocorrection of the present helpless state and psycho prevention of the negative effects of possible or diagnosed learned helplessness.

The medico-psychological facilitation aimed at solving the problem of the learned helplessness has a lot of opportunities to be effective in the structure of educational process, psychological support and medical services at the medical university.

5. Conclusions

The system of psychological prevention of the learned helplessness genesis is defined as the perspective direction of the rendering system of psychological facilitation focused on creation of the special conditions for development of the personality identity promoting increase in its resistance concerning genesis of the learned helplessness. The learned helplessness genesis concept as the basis for medico-psychological facilitation at the university allows assimilation of new experience in a context of psychological consultation and the non-drug therapy directed to maintenance of self-actualization process, personality development, strengthening of psychological wellbeing and, as a result, opening of new life resources and potentialities of the personality.

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TRAIT EMOTIONAL INTELLIGENCE AS A PREDICTOR OF CAREER INDECISION[1]

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Abstract

Career decision-making can be a stressful experience, often manifested by decision-making difficulties. In the paper, influence of trait emotional intelligence (TEI) on career decision-making, specifically on career indecision and career decision-making difficulties, is investigated in a sample of high school students. Emotional intelligence as a psychological factor that can contribute to successful career decision-making belongs to those variables rarely studied, i.e. trait EI model by Petrides (2009) has not been studied yet. The construct of career indecision denotes problems during the career decision-making process. It has various sources of personality and emotionality variables and all of them are reflected in career decision-making difficulties taxonomy created by Saka, Gati, & Kelly (2008). The authors created the scale to assess emotional and personal difficulties in career decision-making (Emotional and Personality Career Difficulties Scale – *EPCD*, 2008). The study analyzes the trait emotional intelligence prediction level (as a personality trait) assessed by Trait Emotional Intelligence Questionnaire – Short Form (*TEIQue-SF*) created by K.V. Petrides (2009) adapted to the Slovak conditions by Kaliská, Nábělková and Salbot (2015) of career decidedness above the career decision-making difficulties by correlation and regression analysis. Career decidedness was assessed by Lounsbury and Gibson´s Career Decidedness Scale (*CDS*, 2011). The research sample consisted of 156 high school students (average age: 17.7 /SD=.40/; 59% of females). Results proved that high trait EI is significantly positively correlated to decidedness (r=.227[**]) and significantly negatively to all the factors and global level of career decision-making difficulties (-.207[**]≤r≤=-.626[***]). Trait EI significantly predicts career difficulties over and above career decidedness ($F_{change}(2,149)=30.603^{***}$, $R^2_{adj.}=.662$, $R^2_{change}=.069$) supporting clear evidence of incremental validity of trait EI and also the importance of a client's TEI level assessment in career decision-making counseling.

Keywords*: Trait emotional intelligence, career indecision, career decidedness, career decision-making difficulties.*

1. Introduction

Career decision-making can be a stressful experience, often manifested by decision-making difficulties. It is especially important at the end of adolescence period when high school students face challenges to make a choice regarding their future studies or a work profession. **Career indecision** is defined as the difficulties encountered by individuals while making career-related decision and refers to all problems and challenges that need to be addressed prior to, during, or after the decision-making process (Saka, Gati, Kelly, 2008, p. 403). It can be distincted between temporary, developmental indecision on one side and more pervasive, chronic indecisiveness derived predominantly from personality and emotional factors. In the meta-analytical study Martincin and Stead (2015) included both indecision and indecisiveness as their topic of interest in **difficulties in career decision making.** They considered the concept of difficulties in career decision making as "an umbrella term for anyone who is having trouble making a decision, whether this is a transient state of indecision or a pattern of difficulties resulting in indecisiveness" (p.4). Career indecision denotes problems during the career decision-making process and it has various sources involving also personality and emotional variables (Gati, 2013) being included in definitions of career decision-making difficulties domain or career indecision (Kelly & Lee, 2002) or in taxonomies of career decision-making difficulties.

Saka, Gati and Kelly (2008) developed a theoretical framework for analysing **the emotional and personality-related aspects of career-decision-making difficulties**. Based on the existing literature they located variables consistently found to be correlated with career indecision and indecisiveness. They

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proposed a hierarchical taxonomy with three major clusters of difficulties – pessimistic views, anxiety, and self-concept and identity – that are then subdivided into 11 specific categories based on finer distinctions. The first major cluster – *pessimistic views* – refers to negative cognitive biases and perceptions. It consists of three categories (pessimistic views about the process, about the world of work and about one´s control). The second major cluster is defined as *anxiety* consisting of four categories and refering to the possible effects of anxiety on specific aspects of the decision-making process (anxiety about the process, anxiety related to the uncertainty involved in choosing, anxiety about the process of choosing and anxiety about the outcome). The third major cluster is labelled as *self-concept and identity*, which refers to developmental personality aspects of the individual and consists of four categories (self-esteem, general anxiety, uncrystallised identity and conflictual attachment and separation). Based on the proposed model the authors developed the *Emotional and Personality Career Difficulties Scale* (*EPCD*) and empirically verified the above-mentioned model. It has been verified within the Slovak context as well (Hroncová, Sollár, Šišková, Sollárová, 2016; Sollárová, 2016; Sollárová, 2017).

The literature reveals a growing interest in studying individual variables associated with the career decision-making process. Apart from personality traits, the specific role of the career decision-making process is generally recognized and agreed upon among researchers (Martincin, & Stead, 2014), **emotional intelligence** (EI) represents an additional potentially critical variable in the career decision-making process (Di Fabio & Palazzeschi, 2009), yet being rarely studied. In studying the role of EI in career decision-making difficulties, Bar On´s model as the so-called mixed model linking EI with personality and abilities, has been mostly investigated. The relationship between overall EI assessed by the *Bar-On EQi* and the career decision-making difficulties assessed by the *Career Decision-making Difficulties Questionnaire* (*CDDQ*) (Gati et al., 1996) was studied by DiFabio and Palazzeschi (2009). The study indicated that EI is inversely associated with each of the three dimensions of the Gati et al.´s model (lack of readiness, lack of information, and inconsistent information) and that EI also explains a significant percentage of the incremental variance when compared with personality traits in explaining the impact on the career decision-making difficulties involved in Gati´s model. In another study, Di Fabio, Palazzeschi, & Bar-On (2012) examined the role of personality traits, core self-evaluation, and EI in career decision-making difficulties in a sample of Italian university students. It was found out that EI adds significant incremental variance compared with personality traits and core self-evaluation in predicting career decision-making difficulties.

Research exploring the relationship between EI and career difficulties is limited, specifically the relationship between trait emotional intelligence based on Petrides´ model and emotional and personality based difficulties in career-decision-making is absent.To investigate a role of trait EI as another EI model offers a new research opportunity. **Trait EI**, investigated in this study, is explained by its author, K. V. Petrides, as a constellation of emotion-related self-perceptions and dispositions located at the lower levels of personality hierarchies (Petrides, 2009). The model consists of 15 facets (13 of them forming 4 factors: emotionality, sociability, well-being and self-control and 2 independent facets stand by themselves) forming the global level of trait EI (more detailed characteristics of the factors in Petrides, 2009; Kaliská & Nábělková, 2015). Petrides also created questionnaires to measure trait EI (*Trait Emotional Intelligence Questionnaire – TEIQue*) for three developmental stages (children, adolescents, and adults) of two forms (short and long form). In Slovakia, the satisfactory psychometric properties of full and short forms of Slovak *TEIQue* versions were evidenced (Nábělková, 2012; Kaliská & Nábělková, 2015; Kaliská, Nábělková, & Salbot, 2015, and others). For short forms of TEIQue, created from the original full versions, the author recommends to assess only the global level of trait EI.

In the paper, influence of trait emotional intelligence on career decision-making, specifically on career decidedness and emotional and personality-related career decision-making difficulties, is investigated in a sample of high school students.

2. Objectives

On the basis of findings described in the literature described above, the present study aims to analyse the relationship between emotional intelligence, career decidedness and career decision-making difficulties. More succinctly, the purpose of the study is to verify whether emotional intelligence can explain a significant percentage of incremental variance compared with career decidedness in explaining career decision-making difficulties. We questioned the following:

First, what is the relationship between trait emotional intelligence, career decidedness and career decision-making difficulties?

Based on our reading of the literature we hypothesized that

(H1) individuals with higher trait emotional intelligence scores would display higher levels of career decidedness.

(H2) individuals with higher trait emotional intelligence scores would display lower levels of career decision-making difficulties.

Second, what clusters of career decision-making difficulties as defined by Saka, Gati, and Kelly´s model (2008) of emotional and personality-related decision-making difficulties are most associated with total trait emotional intelligence as defined by Petrides?

Third, can trait emotional intelligence predict a significant percentage of incremental variance above career decidedness in explaining emotional and personality-related career decision-making difficulties?

Based on the research findings we hypothesized that

(H3) trait emotional intelligence will explain a significant percentage of incremental variance compared with career decidedness in predicting the career decision-making difficulties.

3. Methods

Research sample

The research sample consisted of 156 high school students (average age: 17.7 /SD=.40/; 59% of females) from central Slovak region. The research sample was obtained by targeted and occasional sampling as a part of professional orientation testing. Either the parental or individual (18-year-old ones do not need parental approval) informed consent was signed voluntarily two weeks before testing.

Research methods

Trait EI was assessed by the short Slovak version of the *Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF,* Kaliská, & Nábělková, 2015) created by K.V. Petrides (2009). The instrument consists of 30 items answered by a seven-point Likert scale (1 – completely disagree to 7 – completely agree), a higher rating indicate a higher level of TEI. Reliability estimate in the sense of inner consistency (for the whole sample: α=.83; .83 for females; .81 for males/) reaches highly acceptable values.

To evaluate career decision-making difficulties, participants responded to the Slovak version of the *Emotional and Personality Career Difficulties Scale* (**EPCD,** Saka, Gati, & Kelly, 2008). The scale consists of 53 items, each item representing one of the 11 difficulty categories, answered on a 9-point scale (1 - does not describe me to 9 - describes me well), a higher rating indicates a higher level of difficulty. The total score and the sum from the three subscales (Pesimistic Views; Anxiety; Self-concept and Identity) were calculated. Cronbach α for the total score was 0.945.

To evaluate career in/decidedness, the *Career Decidedness Scale* (**CDS**; Lounsbury, & Gibson, 2011) was used. It is a 5-item one-dimenzional scale with the score range from 6 to 30, a higher score indicates a higher decidedness. Cronbach α was .949.

Data analysis

Descriptive statistics, Pearson r correlations, and a hierarchical regression analysis were performed.

4. Results

The basic descriptive indicators for global trait EI assessed by TEIQue-SF questionnaire, for three main factors and global level of career difficulties assessed by EPCD and the level of decidedness by CDS of our research sample are presented in Table 1.

Table 1. Descriptive indicators of all variables in a sample of the Slovak adolescents (N=156).

		Min	Max	AM	SD	Skewness	Kurtosis	α
TEIQue-SF	Global Trait EI	2.47	6.63	4.81	.79	-.469	-.048	.872
EPCD	Pessimistic views	2.33	7.33	5.06	.96	-.237	-.155	.945
	Anxiety	1.19	9.00	5.44	1.87	-.399	-.704	
	Self-concept and Identity	1.12	7.41	4.18	1.38	.172	-.497	
	Global Career Difficulties	2.13	7.45	4.99	1.23	-.331	-.520	
CDS	Decidedness	1.00	5.00	2.64	1.13	.446	-.873	.949

Comparing to the Slovak percentile norms for the late adolescence created by norm sample of N = 387; AM_{age} = 16.6; /SD= 0.5/ (Kaliská, Nábělková, & Salbot, 2015, p. 49), it can be concluded that the global trait EI level (AM=4.81) of this research sample is reaching the 57th percentile. We can also conclude all of the observed inner consistencies of the instruments used estimated by Cronbach´s alpha coefficients reach acceptable values. Statistical analysis of skewness and kurtosis of the variables proves the normal distribution of the analyzed variables therefore the relation estimate was carried out using

parametric correlation analysis. Pearson's correlation coefficient (r) enables to determine the direction and strength of relations between variables presented in Table 2.

Table 2. Correlation analysis of the variables (N=156).

		1	2	3	4	5	6
TEIQue-SF	1 Global Trait EI	1.00	-.207**	-.290***	**-.626*****	**-.432*****	.227**
EPCD	2 Pesimistic views		1.00	.607***	.475***	.711***	-.489***
	3 Anxiety			1.00	.667***	.948***	**-.828*****
	4 Self-concept and Identity				1.00	,844***	-.531***
	5 Global Career Difficulties					1.00	**-.773*****
CDS	6 Decidedness						1.00

$^*p < .05, ^{**}p < .01, ^{***}p < .001$

Referring to the correlation analysis it can be stated that global level of trait EI was negatively correlated to all the scales and global level of career difficulties (supporting H2). The strongest negative and significant correlation was between global level of trait EI and EPCD cluster of *Self-Concept and Identity* within career decision-making difficulties (Q2). The global trait EI is in (positive) weak significant relation to the level of decidedness as hypothesized in H1.

Further on there was a hierarchical two-step regression analysis conducted to determine if global level of the career difficulties as dependent variable could be predicted by the decidedness level and global trait EI level to support also the incremental validity of trait EI. The results are presented in Table 3.

Table 3. Hierarchical regression analysis.

	Career Difficulties		
Step 1	$F(1,149)=219.090^{***}$, R^2 adj. $=.594$		
Step 2	$F_{change}(2,149)=30.603^{***}$, R^2 adj. $=.662$, $R^2_{change}=.069$		
	Beta	t	Partial correlations
Decidedness (Step 1)	-.848	-14.802***	-.773
Decidedness	-.780	-14.535***	-.768
Trait EI (Step 2)	**-.421**	**-5.532*****	**-.415**

$^*p < .05, ^{**}p < .01, ^{***}p < .001$

A two-step hierarchical regression was performed to investigate the prediction potential of trait EI of career decision-making difficulties level and at the same time to prove the incremental influence of trait EI over and above the decidedness level. The decidedness was entered at step 1 and trait EI on its own at step 2. At step 1, the model was statistically significant and decidedness level predicted almost 60% of the variance in career difficulties level. Then at step 2, trait EI, was entered on its own. It was again found to be a significant negative predictor of career decision-making difficulties, over and above decidedness level (H3). Trait EI predicted a significant almost 7% of unique variance in career decision-making difficulties after controlling for decidedness level supporting incremental validity of trait EI with remaining partial correlation of r = -.415.

5. Discussion

Relationships between global trait emotional intelligence (TEI) as measured by the Petrides´ *TEIQue-SF* (2009), career decidedness as measured by Lounsbury and Gibson´s *CDS* (2011) and career decision-making difficulties as measured by the *Emotional and Personality Difficulties Scale* (Saka, Gati, Kelly, 2008) were investigated in a population of Slovak high school students.

As expected (H1), individuals who showed higher global trait emotional intelligence displayed higher career decidedness level. The result supports our previous findings (Sollárová, 2016; 2017) where the level of emotional and personality-related aspects of career decision-making difficulties was differentiated by the level of undecidedness of high school and university students where students with higher level of undecidedness (related to their study and profession choice) showed higher level of career decision-making difficulties.

As expected (H2), individuals who showed higher global trait emotional intelligence displayed less career decision-making difficultes, both in overall difficulties and in all three areas of difficulties as defined in the model by Saka, Gati, and Kelly (2008). The strongest negative and significant correlation was found between global level of trait EI and the third major area of difficulties defined as "self-concept and identity" (Q2).

Prediction of the emotional and personality-related career decision-making difficulties by the decidedness level and over and above by the global trait EI level (H3) was investigated and examined by means of hierarchical regression analysis. Our research found out that global trait emotional intelligence significantly predicted higher level of career decidedness and lower level of emotional and personality-related career-decision-making difficulties, over and above the decidedness level. One reason for this finding may relate to the common domain shared by some of the dimensions of the *EPCD* cluster and the *TEIQue* factor. In particular, one of four categories of the major cluster *EPCD* – "self-esteem" – refers to a sense of self-worth in both general and career-related aspects of life and, one of the TEIQue Petrides´ model factors, "well-being", in its low level is interpreted as low self-esteem and uncertainty. Another category of the same cluster – "general anxiety", refers to the general trait of anxiety. Our study verifying the incremental validity of Slovak version of TEI (Kaliská, & Sollárová, 2017) found out that higher level of trait EI is negatively correlated to trait anxiety. Scientifically it supports that trait EI predicts level of career decision-making difficulties over and above the level of decidedness supporting clear evidence of incremental validity of trait EI also in a sample of the Slovak high school students by the short form of TEIQue-SF in the Slovak conditions. This implies that those involved in career decision-making are likely better able to cope with that process if they possess higher trait emotional intelligence. Professionals involved in career counseling would therefore likely benefit from information regarding a client's trait emotional intelligence and adjust a career intervention accordingly.

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ASSESSMENT OF DIFFERENCES IN AGGRESSIVE POTENTIAL IN HOSPITALIZED FORENSIC PATIENTS USING RORSCHACH TEST

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Abstract

This study examined the association between four Rorschach variables (Aggressive Movement, Aggressive Content, Aggressive Potential and Aggressive Past) and history of violent behavior in a sample of 95 patients hospitalized at the forensic psychiatric ward. Principal component analysis revealed three factors accounting for 63% of the total variance. Logistic regression confirmed factor 2 (AgC/AgPot) as a significant predictor of violent criminal behavior, while factor 1 (AgPast, age) and 3 (AG) failed to predict violent behavior. A significant difference between frequency of AG scores was found between hospitalized violent offenders and normative sample by non-parametrical method.

Keywords: Violent crime, forensic patients, aggression, Rorschach test, comprehensive system.

1. Introduction

Assessment of aggressive potential is one of the major components in the assessment process at different forensic and non-forensic settings. Beside numerous rating scales, questionnaires and inventories, projective tests like Rorschach are a standard tool used for this purpose.

Baity and Hilsenroth (1999) recognized the motivation to understand the aggression construct reflected in the development of a number of variables for various personality assessment measures, including the development of several aggression-related variables for the Rorschach. As the comprehensive system (CS) became the prominent coding system, its single aggression variable, Aggressive Movement (AG), became central to the Rorschach understanding of aggressive individuals (Kivisto and Swan, 2013). Aggressive Movement is defined as 'any movement response in which the action is clearly aggressive' (Baity and Hilsenroth, 1999). Research as reported by Mihura and Nathan-Monthano (2001) supports AG as indicating attitudinal, verbal, and physical aggression for clinical samples. There is also some suggestion that AG may be associated with tension about aggressive impulses that person views as ego-dystonic (Exner and Erdberg, 2005).

However, many researchers found that antisocial reference samples provided fewer AG responses than normative samples (Gacono and Evans, 2008). Violently aggressive people have been known to give Rorschach protocols in which AG=0, perhaps because they are so unconcerned about aggresivity and so capable of acting freely on their aggressive impulses that they have no need to imbue their fantasy production with aggressive themes (Weiner, 2003).

Another set of aggression variables was developed by Gacono and Meloy (1994) and these include aggressive content (AgC), aggressive potential (AgPot), and aggressive past (AgPast).

AgC is defined as any content popularly perceived as predatory, dangerous, malevolent, injurious, or harmful. Baity and Hilsenroth (1999) suggested that AgC indicates identification with the aggressor and need for external control, and they found a relationship between AgC and a measure of antisocial personality. Individuals who identify with potentially violent objects may see their external environment as potentially hostile, and feel they must exert control over this world. Regulation of an antisocial's world is done through the callous manipulation of others for which the most coercive vehicle is aggression (Baity and Hilsenroth, 1999).

AgPast is scored for any response in which an aggressive act has occurred or the object has been a target of aggression (Meloy and Gacono, 1992) and it was initially conceptualized as indicating self-damage, masochism, or an early traumatic experience of having been aggressed against. AgPast was related to victimization and anger in clinical samples (Baity and Hilsenroth, 1999). The identification of the self as damaged or spoiled might arise from a history of being in an unstable environment that results in victimization (Baity and Hilsenroth, 1999).

AgPot has been defined as any response in which an aggressive act is about to occur (Meloy and Gacono, 1992), and is thought to indicate aggressive urges (Gacono, Bannatyne-Gacono, Meloy & Baity, 2005). This category of aggression may implicate certain sadistic features in the subject (Meloy and Gacono, 1992) and identification with predatory objects or preoccupation with predation (Gacono and Meloy, 1994). Other research has found AgPot related to problems modulating one's aggressive urges.

Gacono and Meloy (1994) found that psychopathic and nonpsychopatic offenders with antisocial personality disorder produced more AgC, AgPast and AgPot than a nonclinical sample of individuals meeting criteria for borderline and narcissistic personality disorder (American Psychiatric Association, 1994). Other authors found that AgC, AG and MOR were each independently associated with real-world aggression (Baity, Hilsenroth, 2002).

Another important issue where Rorschach plays a crucial role is insanity defense. The insanity defense is a legal defense that results in the removal of legal responsibility. The defendant found insane is normally referred to as not guilty by reason of insanity. In the case of insanity, it is the presence of mental illness that can remove criminal responsibility (Huss, 2009). The majority of criminal defendants acquitted by reason of insanity are diagnosed as psychotic (Melton, Petrila, Poythress, & Slobogin, 1977).

Slovenian legal system incorporates the institute of not guilty by reason of insanity in the criminal law. After a defendant is being recognized by court as not guilty by reason of insanity the measure following is a hospital treatment by court order that can last up to maximum 5 years. During that period a patient is evaluated and reported to the court continuously (usually every 6 months) by an expert to establish whether hospitalization is still necessary. Violence risk and risk of recidivism is usually included in the assessment.

Information from the Rorschach Comprehensive system (Exner, 2001), together with that accumulated using other assessment methods, is of great value in clarifying an individual's present clinical functioning and the influence it has on potential for violence risk (Gray, Meloy and Jumes, 2008). Comparative studies have revealed that antisocial and psychopathic offenders, for whom aggression is presumably more ego-syntonic, tend to produce fewer AG responses then other groups. Individuals with antisocial, borderline, and narcissistic personality disorders generally produced more AgC and AgPast responses (Gacono & Meloy, 1994).

2. Objectives

The goal of the present study was to identify predictors of violent behavior among various Rorschach variables (aggressive movement – AG, aggressive content – AgC, aggressive potential – AgPot, aggressive past – AgPast), diagnostic categories representing psychopathology and demographic variables (age). Further, we explored whether any of variables could discriminate between subjects with diminished legal responsibility for reason of insanity and subjects with full legal responsibility for their criminal act. We hypothesized subjects committed violent act will score significantly higher on AG, AgC, AgPot and AgPast.

3. Methods

3.1. Setting and assessment model
The study was designed as retrospective and clinical including data from assessment procedures performed during hospital treatment of forensic psychiatric in-patients.

3.2. Sample
Participants included were 95 forensic in-patients (89 males and 6 females) with average age 37,25 years (SD=12,07). They were admitted to Forensic Unit of Psychiatric Department of University Medical Centre in the period from May 2009 to January 2018. The inclusion criterion for the study was the availability of psychological report including Rorschach with valid record of responses. Initially, there were 104 subjects, 9 were excluded based on validity criteria (insufficient number of responses in the Rorschach record). Among 95 subjects, 61 committed violent and 34 non-violent criminal act. 31 subjects were hospitalized by court order due to insanity at the time of offense and 64 represented prison inmates who were hospitalized at the forensic unit due to various mental disorders.

Diagnosis and demographic details and were obtained from hospital computer data base and psychological assessment reports with Rorschach records from hospital archives.

Table 1. Descriptive statistics – types of criminal act.

	Freq. – violent offenders*	%	Freq. – violent offenders**	%	Freq. – non-violent offenders	%
Criminal act						
Murder	5	16	8	27	0	0
Attempted murder	1	3	0	0	0	0
Manslaughter	5	16	1	3	0	0
Attempted manslaughter	2	6	1	0	0	0
Physical assault – minor	2	6	3	10	0	0
Physical assault – severe	1	3	1	3	0	0
Domestic violence	13	42	12	40	0	0
Other violent criminal acts	2	6	4	13	0	0
Burglary	0	0	0	0	8	23
Drug trafficking	0	0	0	0	7	21
Robbery	0	0	0	0	3	9
Revenge to official person	0	0	0	0	5	15
Human trafficking	0	0	0	0	2	6
Other nonviolent criminal act	0	0	0	0	9	26
Diagnosis						
Psychotic disorder	18	58	11	37	13	38
Personality disorder	4	13	4	13	8	24
Other mental disorder	9	29	15	50	13	38

*Note. *court ordered to treatment **incarcerated*

3.3. Measures

The Rorschach was administered and responses were coded in accord with the Comprehensive System guidelines (Exner, 2001) and with Gacono and Meloy's (2008) guidelines by four trained clinical psychologists.

We scored the Rorschach protocols for this study on four variables including Aggressive Movement (AG) from the Comprehensive System and Meloy and Gacono's extended aggression scores: Aggressive Content (AgC), Aggressive Potential (AgPot) and Aggressive Past (AgPast). Popular responses were excluded from AgC classification. Due to various length of protocols all Rorschach frequency variables were divided by the total number of responses (R) in each record.

An analysis of diagnostic categories of the patients was carried out using ICD-10 classification categories. Due to a large number of diagnostic subcategories patients were merged into only two groups: personality disorders and all other diagnosis. Gender differences were not calculated due to very small proportion of female participants (6%).

Type of criminal offence committed was obtained from archived documents in the hospital archive.

3.4. Data analysis

All analyses were carried out on SPSS 23 statistical software package for Windows 10. Beside descriptive statistical methods principal factor analysis with orthogonal varimax rotation with Kaiser Guttman criterion (combined with scree plot) and binary logistic regression were used.

3.5. Results

Initial calculations included descriptive statistics of Rorschach aggression variables (Table 2).

Table 2. Descriptive statistics for Rorschach aggression variables.

	Violent - court ordered to treatment					Violent - incarcerated					Non-violent - incarcerated				
	Me	Mo	Min	Max	F	Me	Mo	Min	Max	F	Me	Mo	Min	Max	F
AG	0	0	0	2	31	0	0	0	3	30	0	0	0	2	34
AgC	1	0	0	7	31	1	0	0	5	30	1,5	0	0	5	34
AgPot	0	0	0	1	31	0	0	0	1	30	0	0	0	1	34
AgPast	0	0	0	2	31	0	0	0	2	30	0	0	0	1	34

Before applying binary logistic regression we recognized significant intercorrelations between predicting Rorschach variables (AG% and AgPot: rho= ,291 p=,004; AgC and AgPot: rho=,238 p=,02) and between predicting Rorschach variables and some other predicting variables (AgPot% and age:

rho= -,271 p=,008, AgPast and age: rho= ,324 p=,001, status and age: rho= -,224 p=,029), and therefore principal component analysis was performed. We extracted three components with varimax orthogonal rotation (Table 3). In three component solution, the components accounted for 63,7% of total variance.

Table 3. Factor structure of four Rorschach Aggression variables, age and status.

	Factor Loadings		
	1	2	3
AG%			,930
AgC%		,691	
AgPot%		,693	
AgPast%	,897		
age	,755		
status*		,489	
eigenvalue	1,639	1,161	1,022
variance	27,313	19,356	17,025
cumulative variance	27,313	46,670	63,695

Note. Only factor loadings of ,40 or greater are shown. *status= court ordered to hospital treatment/incarcerated

Afterwards we included in the predicting model separate components. Using a binary logistic regression we tested factors for the potential of predicting violence. We found that only factor 2 significantly predicted violence (see Table 4).

Table 4. Logistic regression.

	Wald	**df**	**Sig.**	**Exp(B)**
Factor 1	,121	1	,728	1,079
Factor 2	5,154	1	,023	1,682
Factor 3	,032	1	,859	,959
Diagnosis	2,652	1	,103	,390

Note. Dependent variable: violence

An additional, non-parametric method was used to compare Rorschach aggressive movement scores (AG) from the group of violent offenders with normative sample from Exner original research (Exner, 2001). Results (One-sample Wilcoxon Signed Rank test p=,001) confirmed a significant difference, namely normal individuals scored higher on AG then violent offenders.

4. Discussion

Present study was an empirical attempt to examine differences in Rorschach aggression variable from comprehensive system and the extended aggressive scores provided by Gacono and Meloy between violent and non-violent forensic in-patients and also between patients hospitalized during serving a prison sentence and patients hospitalized by court order after committing a violent crime in the state of insanity. Our hypotheses were partially confirmed.

The Rorschach aggression variables examined in this study (and some other predicting variables as well) were not independent of each other. The relation between them was examined using principal components factor analysis with orthogonal varimax rotation. The four aggression variables formed three distinct factors that accounted for 63% of the total variance. Factor 1 is defined by AgPast and age and it accounted for 27% of the total variance after rotation. In factor 2, primary loadings were AgC, AgPot and status (prison sentence/hospitalization by court order) and it accounted for 19% of total variance. Logistic regression revealed it's a significant predictor of violent behavior. This factor is similar to Mihura and Nathan-Montano's description of AgPot/AgC variable as a feared loss of interpersonal (external) control. Same authors suggest that combination of AgPot and AgC (vs either variable alone) indicates more likely aggressive urges. In factor 3, primary loading was AG. Beside factor 2, neither factor 1 or 3 turned out as significant predictor of violent behavior. Separate logistic regression excluded diagnosis as a significant predictor of violent behavior, as well.

However, a non-parametric method indicated a significant difference in the AG scores being lower in violent offenders with mental disorder than in normal individuals. Gacono and Meloy (1994) found the majority of the forensic subjects with known histories of violence produce less AG than nonpatients and clinical samples without histories of violence. This finding supports AG as a measure of ego-dystonic aggressive tension, which is expected in normal population to be higher than in forensic population with high rate of antisocial personality disorder.

The present study's results are consistent with the conclusion of Baity and Hilsenroth (2000), namely the AgC score identifies more subtle indicators of aggressive imagery and has stronger ties than AG to antisocial psychopathology (Baity and Hilsenroth, 1999; Gacono and Meloy, 1994; Meloy and Gacono, 1992). More precisely, AgC score is associated with more externalized aggression and ego-syntonic relationship to aggressive identification and was a significant predictor of total number of criteria for antisocial personality disorder (Baity and Hilsenroth, 1999).

The present clinical study has a number of limitations, therefore its conclusions should be interpreted with some caution. From the aspect of methodological shortcomings, it should be pointed out that the level of violence was estimated exclusively on the basis of participant's nature of last criminal act. To reach more valid evaluation of violent behavior, one or more standardized checklists or scales should be applied.

5. Conclusion

The results of this study demonstrate that the Rorschach aggression variable of AG and extended aggression scores can be reliably scored in the population of forensic in-patients for the purpose of predicting violent criminal behavior, but on the other hand we confirmed that these Rorschach variables are related to one another in significant ways.

Nevertheless, psychological assessment process should incorporate a multimethod approach in the evaluation of an individual's personality. Interpretive formulations of aggressive responses on the Rorschach should be evaluated in the context of the entire protocol and should not be interpreted in isolation from other structural and content data (Baity and Hilsenroth, 1999).

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HUMAN LIFE-WORLD STABILITY AS A TOOL AGAINST LEARNED HELPLESSNESS

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Abstract

Human life stability in psychology is seen as an important indicator of the life embodiment success and the transfer of human opportunities inherent into reality. As a result of this transfer, the formation (opening, development and prosperity) of a unique living space takes place. This space gives a person freedom from rigid dependence on constantly changing situations. The paper presents the analysis of studying the human life-world stability as a factor preventing learned helplessness.

As the main research tool the test "Study of the human life-world stability" (by I.O. Loginova) was used. This method is aimed at studying the features of the organization of human life and allows revealing the manifestations of the life stability (constructive, unconstructive, and stagnant). The next research tool was "The technology of complex analysis of learned helplessness genesis" (by O.V. Volkova). The technology was elaborated as the result of studying of unique ways of learned helplessness development and identification of its place in life of a specific person.

Mathematical processing of the obtained results was carried out using the SPSS Statistics 21 software package.

The study involved students of the Clinical Psychology Faculty who signed the agreement to participate in study by the typical informed consent. The number of students is 238 people. The study had longitudinal character and lasted since 2012 to 2016.

The study was approved by the Krasnoyarsk state medical university Ethical Committee.

It was revealed, that the stagnating nature of the life-world stability manifestation does not contribute to productive life and optimal self-realization. It also forces the learned helplessness formation.

The constructive nature predominance of the human life-world stability contributes to the preservation of health, personal growth and creativity, as well as learned helplessness prevention.

The results of the research demonstrate that the human life-world stability phenomenon and the learned helplessness are overlapped states, which point out different sides of effective/ ineffective and productive/ unproductive life self-fulfillment. This fact opens new prospective of interdisciplinary studies wide by the context and deep by the approach.

Keywords: Life self-fulfillment, human life-world stability, learned helplessness.

1. Introduction

The human life-world stability is considered in psychology as an essential indicator of the success of the life self-fulfillment and opportunities transfer inherent in him (man) into reality. As a result of this transfer, the becoming (formation, discovery) of a unique living space takes place. This space provides a person with freedom from rigid dependence on constantly changing situations, characterizes the degree of his openness to the world and sets the direction of movement of the psychological system (Klochko, Galajinsky, Krasnoryadtseva, Lukyanov, 2014). At this level, a human becomes capable of discovering new correspondences that are the cause of interaction with the world.

The human life-world stability can be connected with the life's self-fulfillment. The reference to concept of "life self-fulfillment" of a human being is connected also with the fact that issues on formation of the actually human in a human being and mechanisms of human being formation which are solved by modern psychological science is a question on self-fulfillment of a human being as a way of a presentation of oneself to the world and through these opening new possibilities for oneself. The paradigm being formed in a psychological science and characterized with a systemic redefining the subject of the science and leading researchers to a human being as a self-fulfilled system explains the

designation of the psychic in a human being formation through comprehension of mission and designation of a human being as a higher system defining "from above" the possibilities of psyche and its role in the self-fulfillment processes.

The human life-world stability allows choosing the optimal mode of functioning of the psychological system: a process of life activity organized in a special way by the person, contributing to the preservation of health, personal growth and creativity. In the absence or lack of expression of the human life-world stability a person demonstrates the identity not of his entire life but only of its fragments, individual events and situations (Blauberg, 2003).

Understanding the optimal strategy of life self-fulfillment correlate with both problem of human life-world stability (constructive, unconstructive, stagnant) and problem of learned helplessness of the person. These two problems are similar in their defining and revealing the level of responsibility of the person for his life (Deci, Ryan, 2000).

Studying the problem of the "learned helplessness" (Seligman, 1993) as a phenomenon being formed in ontogenesis, under the influence of external and internal determinants of development, such as social environment and physical condition of a human body, is important to consider conceptual provisions of the cultural and historical concept of person's mentality origin in which an attempt of solving the problem of person's consciousness origin and development is made. Psychological wellbeing in itself as a conscious state can't be followed by feeling of helplessness priori, but, on the contrary, is a resource state, basic in the course of self-actualization of the personality (Volkova, 2016).

It is not about the process of life self-implementation of the person and the life which are "existing separately", but about personal inclusiveness in evolutionary processes (ontogenetical and a phylogenetical order), characterized by the increasing release of the person "from the dictatorship of the determination according to the personal need normalizing his life" and the increasing submission of "extra normative opportunities determination by the nature" (Loginova, 2012), opening in this inclusiveness the opportunity for own personal formation. It is impossible to ignore the fact that the person (in onto-and phylogeny) is constantly changing: changing at the same time own ideas about the world and own personality, reinterpreting and overestimating the past, keeping thereby both own historicity, and historicity of the phenomena studied by him in a certain logic - transspective.

This coexistence of the person and his world as life spaces in unity of times, inseparably linked, forms a continuum of life self-implementation of the person which characteristic is possible only from such point of view which holds a set of threads in a uniform sheaf, coming out to a tendency of personal development.

Consequently, in gives the opportunity to make a suggestion that the human life-world stability allows prevention the learned helplessness development providing higher flexibility in real-life situations, realization of the authentic position concerning own life, self-congruency.

2. Design

The study was comparative in the two samples in order to reveal degree of trait manifestation. All respondents provided voluntary informed consent to participate in the study in accordance with the norms of the Krasnoyarsk State Medical University Local Ethics Committee. The study was conducted from 2015 to 2016.

The study involved students of the Clinical Psychology Faculty who signed the agreement to participate in study by the typical informed consent. The number of students is 238 people. The students were divided into 2 groups according to the quality of the manifestation of the human life-world stability.

The first group – students characterized by the manifestation of unconstructive human life-world stability.

The second group – students characterized by the manifestation of constructive human life-world stability.

Table 1. Distribution of respondents by parameters within groups.

Options	Gender		Age
	Women	Men	
First group	70%	30%	20,2±0,7
Second group	70%	30%	20,4±0,5

3. Objectives

The main objective of the research is to study the human life-world stability as a tool against the learned helplessness:

1) If a human, characterized by the life-world stability, can resist the learned helplessness;
2) What methods and strategies a human uses as the tools of confrontation with learned helplessness.

4. Methods

The methodology "Investigation of the human life-world stability" (by I.O. Loginova) was used as the main research method, which allows to study the features of the human life-world stability in the process of real life activity (Loginova, 2012). This method is aimed at studying the features of the organization of human life and allows revealing the manifestations of the life stability (constructive, unconstructive, and stagnant).

The next research tool was "The technology of complex analysis of learned helplessness genesis" (by O.V. Volkova). The technology was elaborated as the result of studying of unique ways of learned helplessness development and identification of its place in life of a specific person. The formation mechanisms and prevention ways of "the learned helplessness" phenomenon demands taking into account an environment factor, studying patterns of behavior mastered by means of interaction with the environment, mechanisms of fixing and maintenance of these patterns, and also their combinations to the specific physiological state caused by somatic factors. Studying the influence of a unique complex containing the specified structural elements as the model forming learned helplessness in ontogenesis since the period of the preschool childhood till adulthood, is one of the objectives of this research.

Mathematical processing of the obtained results was carried out using the SPSS Statistics 21 software package.

5. Discussion

All results of two groups respondents on the method "Investigation of the human life-world stability" were systematized in accordance with the instruction and are presented in Table 2.

Table 2. Results of the human life-world stability of two groups.

Options	First group	Second group
Temporary of events tendency	The present 30% The past 40% The past - the present 30%	The present - the future 60% The past - the present - the future 40%
The ratio of verbs	The present 40% The past 40% The past - the present 20%	The present - the future 60% The past - the present - the future 40%
Criterion for the described events content selecting	Chronotopic 20% Topological 20% Biographical 60%	Chronotopic 30% Topological 60% Biographical 10%
General emotional background of events	Positive 30% Neutral 40% Negative 30%	Positive 60% Neutral 30% Negative 10%
The meaning of the described life events	The overall direction of the development line is conserved 20% General orientation is not withheld 30% Center of the development line 20% Completion of the development line 30%	The overall direction of the development line is conserved 50% General orientation is not withheld 30% The beginning of the development line 20%
Attitude to events	Value 15% Responsible 5% Rational 80 %	Value 60% Responsible 20% Rational 20%
Continuity of personal history	Retained 5% Situationally 30% Missing 65%	Retained 75% Situationally 20% Missing 5%
Author reflexive position	Holistic reflexive position10% Situational reflexive attitude 30% Absence of a reflexive relation 60%	Holistic reflexive position 60% Situational reflexive attitude 25% Absence of a reflexive relation 10%

Differences between these groups are statistically highly significant (t = -11.35 at p <0.001).

Table 3. Study results in the clinical and control samples.

First group		Second group		t-test	p
μ	δ	μ	δ		
28.69	7.73	62.67	10.24	-11.35	0.001

The next step was to match the results of the human life-world stability and learned helplessness measurements.

It was found that 85% of students characterized by the manifestation of unconstructive human life-world stability have signs of the learned helplessness phenomena. In this case, 65% of this education was stably manifested, and 20% - situationally.

It was found that 15% of students characterized by the manifestation of constructive human life-world stability have the signs the learned helplessness. In this case, only 5% of this education was stably manifested, and 10% - situationally.

The formation mechanisms and prevention ways of "the learned helplessness" phenomenon demands taking into account an environment factor, studying patterns of behavior mastered by means of interaction with the environment, mechanisms of fixing and maintenance of these patterns, and also their combinations to the specific physiological state caused by somatic factors.

However, the research results reveal that students characterized by the manifestation of unconstructive human life-world stability choose the following ways of confronting the learned helplessness:

- external support,
- an appeal to a psychologist / psychotherapist,
- writing an analytical diary,

While, students characterized by the manifestation of constructive human life-world stability choose the following ways of confronting the learned helplessness:

- self-control,
- reflective attitude to events,
- regular self-assessment of emotional state.

6. Conclusions

It was founded, that the stagnating nature of the life-world stability manifestation does not contribute to productive life and optimal self-realization. It also forces the learned helplessness formation.

The constructive nature predominance of the human life-world stability contributes to the preservation of health, personal growth and creativity, as well as learned helplessness prevention.

The results of the research demonstrate that the human life-world stability phenomenon and the learned helplessness are overlapped states, which point out different sides of effective/ ineffective and productive/ unproductive life self-fulfillment. This fact opens new prospective of interdisciplinary studies wide by the context and deep by the approach being oriented to the following objectives in the system of psychological facilitation:

1) Decrease in number and intensity of psychological difficulties in relationship with the close social environment;
2) Subjective perceptions of own psychological state as improving;
3) Increase in indicators of psychological and physical health;
4) Increase in level of search activity;
5) Increase in level of independence;
6) Increase in stress resistance;
7) Development of emotional intelligence;
8) Improvement of an emotional state, increase in vitality, social activity.

These points urge the necessity of developing the system of psychological support including psychotherapy, psychocorrection and psychological prevention of aimed at solving the problem of unconstructive life-world stability and learned helplessness of the person.

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AGGRESSIVE BEHAVIOR IN YOUNG PEOPLE WITH ID AND ASD

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Abstract

Aim: The manifestation of aggressive behavior in people with intellectual disabilities and autism spectrum disorder seems to be a major concern, both for families and for caregivers. However, we have little information on this topic. The aim of the present study was to investigate the forms and the prevalence of behaviour problems among people with intellectual disability and with or without autism spectrum disorder.

Procedure: This study was carried out using two scales on a sample of 305 young people with ID with or without ASD. For the assessing of the frequency of aggressive behaviour we used the "Behavior Problems Inventory-Short Form" (Rojahn & al., 2012) and the "Children's Scale of Hostility and Aggression: Reactive / Proactive" (Farmer & Aman, 2009).

Results: The results indicated that the frequency of aggressive behaviours decreased with age in people with ID. However the frequency of aggressive behaviours was the same during childhood and a beginning of adulthood in people with ASD and ID. Our study also highlights a link between aggression and biographical variables in people with ASD and ID.

Keywords: Aggressive behavior; intellectual disability; autism spectrum disorder; challenging behavior autism.

1. Introduction

1.1. Intellectual disability

Benson and Brooks (2008), report that aggression is a significant problem in individuals with ID, from childhood to adulthood and at all levels of intellectual impairment. Oliver & al., (1987) found that manifestation of CB in people with ID increase during childhood, and that behaviors reach a peak at 15 years and then decrease. Tyer & al., (2006) suggest a decrease in the relative risk of aggression with increasing age after the age of 20. A review of the literature (Davies & Oliver, 2013) showed that in studies using only children's samples, aggression and self-injury don't appear to differ significantly with age.

1.2. Autism spectrum disorder

We know that people with ASD are more likely to present challenging behaviors compared to children with ID (Holden & Gitlesen, 2006). Aggression is more common among individuals with a dual diagnosis of ID and ASD (Brosnan & Healy, 2011). Some recent studies have been conducted with this public. One of them used the Behavior Problems Inventory-01 in a sample of children and adolescents with ASD living in Ireland and found no relationships between age and aggression, stereotypies, or SIB (Murphy, Healy, & Leader, 2009). Other researchers, in US, (Matson & al., 2010) didn't find differences between children (3–6 year olds), children (7–10 year olds), and young adolescents (11–14 year olds) with ASD in physical aggression, property destruction, verbal aggression, SIB, stereotypies, and tantrum. Finally, no significant differences between age groups were noted for gender.

We know that aggressive behavior is an important problem in this population (Matson, Wilkins, & Macken, 2009). These behavioral manifestations can engender a poor adaptation to its environment (Vieillevoya & Nader-Grosbois, 2008), an obstacle to learning new skills (Chadwick, Piroth, Walker, Bernard & Taylor, 2000), a significant risk of injury (Lee, Harrington, Chang & Connors, 2008). Despite this alarming finding there are a few studies toward this topic, particularly about ASD people. Indeed, there is no review of the literature on the prevalence of aggressive behavior in children and adolescents with ASD (Cristan & Farmer, 2011).

Currently, the lack of scientific literature on the subject causes difficulties in understanding behaviors and setting up interventions. In addition, there is no study in France on the aggressive behavior of people with ID with or without ASD from a medical-educational institute. Our study aims to identify the forms of these behaviors, their frequency according to age, diagnosis and other biographical variables. We assume that people with ID and ASD don't present the same aggressive behavior patterns as people with only an ID.

2. Method

2.1. Participants

The sample is composed of 305 participants aged between 7 and 24 years (14.61 years; 3.44 SD). All participants receive medical and educational care in a specialized institution. They had all been tested by psychologists and had been diagnosed with intellectual disabilities with or without Autism Spectrum Disorder. Data collection was carried out in 7 specialized institutions in France with the agreement of all healthcares professional.

2.2. Measures
The C-SHARP (Farmer & Aman, 2009) comprises 48 items rated over the past month, on five subscales: (I) verbal aggression, (II) bullying, (III) covert aggression, (IV) hostility, and (V) physical aggression. We asked the educator to inform the frequency of the behaviors in The Problem Scale items. Indeed, this reflect the frequency and severity of the behavior, are scored from 0 (doesn't happen) to 3 (severe/frequent).
The Behavior Problem Inventory (Rojahn & al., 2012) contains 30 items divided into several subscales. The subscales of "self-injurious behaviors", "aggressive and destructive behaviors" and "stereotyped behaviors" consist of 8, 10 and 12 items respectively. We asked the educator to inform the frequency of the behavior problem existing during the two months preceding the award. The frequency is evaluated on a scale from 0 to 4, either never (0), monthly (1), weekly (2), daily (3), every hour (4).

2.3. Analysis
The statistical tests were performed using the Statistica version 13 software. We used correlation matrix for study all associations between the variables: age and ID, age and ASD with ID, ASD with ID and biographical variables. Then we used comparison tests between groups in order to compare the scores obtained at C-SHARP and BPI-SF.

3. Results and discussion

Regarding people with ID, our study confirmed that they manifest aggressive behaviour. Also, we can observe that they use several forms of aggression: verbal, physical, bullying, relational, hostility and self-injurious behaviour. Results highlighted a relationship between age and aggressive behaviour. Indeed, it's appears that those under the age of 16 exhibit more aggressive behaviour than those over 16. This goes in the direction of the literature in which we find no difference during childhood (Davies & Oliver, 2013) and a peak at 15 years old and then decrease (Oliver & al., 1987) at 20 years old (Tyrer & al., 2006). However, the maximum age of our sample is 20 years, we don't know if this decline continues throughout life.

Regarding people with ID and ASD, our study confirmed that they manifest aggressive behaviour. They use the same forms of aggression as people with only an ID: verbal, physical, bullying, relational, hostility and self-injurious behaviour and it seems that is more frequent compared to children with only ID (Holden & Gitlesen, 2006; Murphy & al., 2005; Brosnan & Healy, 2011; McClintock & al., 2003; Tsiouris & al., 2011). On the other hand, this differs according to the forms of aggressiveness. Indeed, we can observe that people with ID have more verbal and relational aggressions than people with ID and ASD. Finally, people with ID and ASD exhibit more SIB than people with only ID. As in the literature, we observed a lack of relationship between age and aggression, stereotypies, SIB, physical aggression, property destruction, verbal aggression (Murphy, Healy, & Leader, 2009; Matson & al., 2010).

In addition, our research will also aim to study the risk factors. The first results indicate that as in the Maston and al., study, we found no gender differences for aggression, physical aggression, property destruction and verbal aggression. There are no gender differences also for bullying, relational aggression and hostility. However, unlike a study of Maston and al., we found a gender difference for SIB. Indeed,

girls have more self-injurious behaviour than boys with ID and ASD. We also found relationships between aggression and verbal ability, epilepsy and being subjected to violence or not.

This research is very important for several reasons. From a clinical perspective, a better understanding of these behaviors and their risk factors can allow to plan effectively for the future needs of children, adolescents, adults with ID or ID and ASD. Also, this can allow the development of appropriate intervention strategies. Behavioral problems in children may be easier to treat than more established behavioral problems that persist into adulthood (Emerson & al., 1997).

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IS THE DECLINE IN COGNITIVE FUNCTIONING OF THE OLDER ADULTS PERCEPTIBLE AS THEY DEAL WITH MUSEUM EXHIBITIONS?

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Abstract

The accumulated data about the decline of the cognitive capacities of the elderly made us foresee that in the museum situation older adults would be less intellectually productive than young adults. This hypothesis had to be rejected. We offer four explanations to the exceptional resistance of the older adults' capacities.

Keywords: Older adults, young adults, cognitive capacities, meaning making, museum exhibition.

1. Introduction

For various reasons, museums of a large proportion of the OECD countries pay little attention to their old age visitors, although in them, elderly people (65 years of age and over) outnumber children zero to fourteen years. Museums seem also to disregard the fact that the number of old people will increase exponentially. Indeed, in the next 30 years; the ratio of inactive persons per worker will pass from 38% in 2000 to 70% in 2050 (OECD, 2006).

Regarding the future older adult visitors, one considers that their number will also increase exponentially, as one foresees that the next cohorts will enjoy higher levels of education and better health conditions, two factors well known to foster museum attendance (Gauthier et al. 2004; Granjean and Prost, 2013; Kelly et al, 2009; Smiraglia, 2016; Thongnopnua, 2015*[1]).

Recent research shows that sooner or later all the cognitive capacities decline - the crystallized as well as the fluid ones - (Desjardins and Jonas Wamke, 2012; Lemaire, 2010; Lyketos et al. 1999; Park and Gutchess, 2002; Ronnlund et al., 2005; Salthouse, 2010; Schaie, 1996*). So when they do care, will museums be obliged to modify their exhibitions to make them intellectually less demanding? In order to give a first answer to this question, we compared the cognitive functioning of older and young adults visiting museum exhibitions[2].

2. Data collection context

The present research was carried out in three large temporary thematic exhibitions presented in Québec City by the Musée de la civilisation, the first one being on Ancient China, the second, on European Middle Ages and the third, on Québec History.

3. Sample

In each of the three exhibitions, we worked with two groups of 30 visitors; one of these called the older adults group, was composed of retired men and women aged 65 years and over (Mean 71.7); the other, called young adults group, was composed of working people aged 28 to 64 years (mean 34.8). The two groups were equivalent in their level of education and museum visiting habits because these characteristics are well known as factors that could influence intellectual production (Black, 2005; Bourdieu and Darbel, 1969; Hein, 1998; Hooper-Greenhill, 1994*).

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[1] References marked with an (*) are only examples as the subject matter has been treated in many other publications.

4. Means of collecting information from the visitors

As it was not possible to use a standardized test or questionnaire - there was no relevant one - and because a postvisit interview would have led to invalid results - due to many factors like memory overload - we collected information from each visitor through the "Thinking Aloud" technique (Ericcson and Simon 1993). We used up a version that we adapted and validated for the museum situation. It consists of asking a visitor who is arriving at the museum to do her/his visit as she/he wishes, saying aloud what comes to her/his mind without bothering with remembering or justifying it (Dufresne-Tassé et al. 1998a, b). While talking, she/he voices her/his experience as it unfolds (Hirtle, 2013), or (this is equivalent), she/he reveals what she/he is thinking, and how she/he is using the mental operations to give meaning to what she/he is observing or reading. We called this visitor's oral production "a discourse". We tape registered and then computerized it, so we could study it in its written form.

5. Ways of studying the cognitive functioning

We studied the written version of each visitor's oral discourse while he was freely observing an object or reading a text, using a set of six types of mental operations now generally regarded as contributing to meaning making during a museum exhibition visit (Dufresne-Tassé et al. 2014; Hirtel, 2013*). They are as follows:

1) *Gathering* information through observing or reading;

2) *Checking* the accuracy of the information gathered or produced by the visitor herself/himself;

3) *Playing* with these, for instance modifying one's position or associating it with some personal knowledge or memories;

4) *Judging* or criticising, making one's mind, giving one's opinion about what is seen or read;

5) *Comprehending,* which could take the form of solving a problem or concluding an argument;

6) *Enriching*, which could take the form of deriving an implication or making a suggestion.

6. Hypotheses

We developed the hypotheses of this investigation considering the three following observed phenomena:

1)The cognitive functioning decreases with the number of years a person has spent away from a strong intellectually stimulating context (Desjardins and Jonas Wamke, 2012*);

Hypothesis: The total number of operations produced by the older adults is smaller than the number produced by the young adults.

2) All the cognitive capacities progressively decrease after the age of 60 (Baltes, 1987; Baltes et al. 1999; Behrer et al. 2001; Lemaire and Behrer, 2005*);

Hypothesis: The number of operations corresponding to each of the six types studied is lower amongst the older adults than amongst the young adults.

3) The fluid capacities - especially the working memory and the ability to learn and reason in complex situations - decline more importantly than the others (Cattell, 1987; Desjardins and Jonas Wamke, 2012; Horn and Hofer, 1992*);

Hypothesis: The difference between the number of operations produced by the older adults and the young adults is greater for the operations Playing, Judging, Comprehending and Enriching than for Gathering and Checking.

7. Results

7.1. Data related to testing the hypotheses

Looking at the table of data inserted at the very end of this paper, one observes that:

1) The total number of operations produced by the older adults in the three exhibition - respectively 11358, 16183 and 10703 - do not significantly differ from the number produced by the young adults - respectively 8870, 11649 and 8280 - (*t* test = 1,22, 1,21 and 1,26, the critical value of *t* unilateral at the 0,05 level being 1,67). So the first hypothesis should be set aside.

2) Regardless of the exhibition considered, except for Enriching in the first exhibition, the number of operations corresponding to each of the six types of operations is not smaller for the older adults than for the young adults.

In the first exhibition, Gathering = 2696/2051; Checking = 257/112; Playing = 2440/1171; Judging = 1419/1411; Comprehending = 4523/ 4052

In the second exhibition, Gathering = 3248/2593; Checking = 99/119; Playing = 3951/2297; Judging = 1907/1367; Comprehending = 6836/5178; Enriching = 142/95.

In the third exhibition, Gathering = 2876/2238; Checking = 85/53; Playing = 3545/2037; Judging = 970/931; Comprehending = 3190/2819; Enriching = 37/202.

But Enriching in the first exhibition = 23/73; the value of the *t* test is 2,0, what makes it significant at the 0,05 level. Even considering this last data, one could say that the second and the third hypotheses should be rejected.

7.2. Supplementary data

Some of the older adults' productions of operations are significantly greater than those of the young adults. This is the case *in exhibit 1* for Gathering: 2696/2051 ($t = 1,87$) and Checking: 257/112 ($t = 2,50$), *in exhibit 2* for Playing: 3951/2297 ($t = 2,17$), and in exhibition 3 for Playing: 3545/2037 ($t = 1,90$). If one adds these results to the ones presented above, definitely one cannot say that the production of cognitive operations of the older adults intending to give meaning to objects and texts in a museum situation is weaker than the young adults' production.

8. Discussion

We propose four possible explanations to the preceding results**.**

1) The older adults have had time to accumulate information that increases their curiosity for the subject matter treated by the museums, so they tend to gather information from objects and texts. Their accumulated information also helps them at least to associate memories and previous knowledge to what they see or read, which presents a great advantage in an exhibition.

2) The older adults who visit museums had opportunities to face demanding intellectual situations that, according to the "Challenge hypothesis" (Desjardins and Jonas Wamke, 2012*), made their cognitive capacities more resistant to all sorts of decline.

3) The older adults who visit museums have developed compensating strategies that make up for their losses.

4) A thematic exhibition usually holds a strongly structured discourse about a subject matter through a tight use of objects and texts, so this strong framework sustains the declining fluid capacities of the older visitors.

For the present time, all these potential explanations are more or less complementary and appealing. Information about the past of the visitors would be necessary in order to evaluate their relevance. Unfortunately, we did not collect it.

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DATA ISSUED BY OLDER AND YOUNG ADULTS

Exhibition 1 (Ancient China)

Young Adults	Gathering	Checking	Playing	Judging	Comprehending	Enriching	TOT
N	2051	112	1171	1411	4052	73	8870
Mean	70,12	3,86	61,07	48,66	139,72	2,52	326,55
Min	3	0	4	4	3	0	14
Max	190	12	320	132	679	18	1293
σ	51.86	4	62,53	35,34	127,29	4,29	260,3
Older Adults							
N	2696	257	2440	1419	4523	23	11358
Mean	96,29	9,18	87,14	50,68	161,54	0,82	405,64
Min	33	0	10	4	41	0	88
Max	261	50	392	121	476	4	1180
σ	51,09	10,51	75,23	32,14	96,18	1,44	226
t value	*1,87**	*2,50**	*1,42*	*0,22*	*0,73*	*2,01**	*1,22*

Exhibition 2 (European Middle Ages)

Young Adults	Gathering	Checking	Playing	Judging	Comprehending	Enriching	TOT
N	2593	119	2297	1367	5178	95	11649
Mean	83,65	3,84	74,10	44,10	167,03	3,06	375,77
Min	2	0	0	0	0	0	2
Max	284	24	274	140	617	19	1190
σ	67,55	5,30	61,44	35,83	123,92	4,91	250,78
Older Adults							
N.	3248	99	3951	1907	6836	142	16183
Mean	90,22	2,75	109,75	52,97	189,89	3,94	449,53
Min	22	0	9	3	49	0	83
Max	334	21	298	239	516	54	987
σ	67,31	4,18	72,66	46,26	109,07	10,205	245,39
t value	*0,39*	*0,92*	*2,17**	*0,88*	*0,79*	*0,45*	*1,21*

Exhibition 3 (Quebec History)

Young Adults	Gathering	Checking	Playing	Judging	Comprehending	Enriching	TOT
N	2238	53	2037	931	2819	202	8280
Mean	74,60	1,77	67,90.	31,03	93,97	6,73	276,00
Min	1	0	1	1	0	0	3
Max	209	9	275	93	430	146	903
σ	58,33	2,36	68,78	28,05	90,14	26,49	223,56
Older Adults							
N	2876	85	3545	970	3190	37	10703
Mean	92,77	2,74	114,35	31,79	102,90	1,19	345,26
Min	7	0	22	2	15	0	46
Max	272	10	603	100	301	17	841
σ	63,23	2,79	116,25	23,87	75,31	3,42	204,97
t value	*1,16*	*1,47*	*1,90**	*0,03*	*0,41*	*1,13*	*1,26*

*Difference significant at the 0,05 level (Critical value of *t* unilateral: 1,67)

HEALTH PROMOTION IN THE PSYCHOLOGIST PERFORMANCE IN AN EDUCATIONAL INSTITUTION

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Abstract

Different psychological practices in educational institutions are being developed, in which the logic of individual clinical care is being replaced by a work focused on the institution and the school environment. These changes focus on health promotion as a strategy of action and include: aspects of valuing life, actions that consider the local reality and focus on the potentialities of individuals who participate in the school, a shift in the contribution of psychology from being problem-focused to valuing a knowledge directed to actions that potentiate personal forces, a work in favor of the quality of life, and the promotion of healthy lives. Thus, the psychological practices related to health promotion in the context of educational environments are linked to a psychology in the service of life, distancing itself from the stereotyped vision of reactive psychological work that focused on problems and difficulties; these practices did not substantiate the practices in educational psychology and the role of a psychologist in school environments. Based on these ideas, the aim of this research is to understand health promotion actions in psychological practices in a technical and high school educational institution. Data were collect through a documentary research technique, using annual work reports as the source of data. These reports were completed by the professionals working in the educational institution and included a brief description of all school activities that occurred over three years (2012, 2013, and 2014). The activities analyzed here were selected based on these reports, all of which occurred collectively and aimed at intervention in the daily lives of students at school. The selected activities were analyzed based on a research guide covering aspects of Health Promotion, as recommended by the Brazilian Ministry of Health. For reliability purposes, three judges, including the first author, coded the documents independently. Content Analysis was used to organize and code the information. Preliminary results indicated that characteristics related to health promotion, such as attention, autonomy, listening, and care can be used by school psychologists in the implementation of significant interventions.

Keywords: Health promotion, psychological practices, school psychology, educational psychology.

1. Introduction

The establishment of Psychology as an area of knowledge and work in Brazil was marked by the demands of the educational field. However, with the regulation of the profession, the educational area was undervalued in comparison to other areas, such as the clinical and organizational psychology; in the latter cases, the psychologists' role was more clearly defined, given that the establishment of the profession had its foundations on clinical and therapeutic processes (Antunes, 2008). Thus, in spite of the great relationship established between psychology and education initially, there are important gaps and disagreements in the public policies directed to psychologists in schools, as stated by Moreira and Guzzo (2014). These gaps and disagreements make the clarity of psychologists' role and the definition of a space for these professional practices difficult in the educational field.

Barbosa (2012) suggested that the present moment is the time for reconfiguration of the psychologists' work in school, considering the emergence of new needs of action, given the new publics, services, practices, and policies. Currently, reflections about the psychologists' role at the school have been directed to possibilities of work linked to aspects of valuing life, in which health promotion arises as a main strategy of action, contributing to mark a place for psychologists' practices in school, in the sense of valuing the psychologists' skills and the potential of the school actors and the educational institution.

Considering the advances of Educational Psychology in the new century, Dazzani (2010) called attention to the importance of psychological practices that promote quality of life and that address students' health and citizenship. Thus, psychologists in the school context should promote health and well-being. Also, Guzzo (2011) emphasized the importance for professional actions to consider the prevention and promotion of health and subjective well-being of students. The author discussed the importance of moving away from a focus on learning difficulties and on the academic curriculum, proposing more attention to the promotion of health, citizenship, and quality of life.

Prudêncio, Gesser, Oltramari, and Cord (2015) interviewed school professionals about the expectations of psychological practices in schools. They found that, although the role of psychologists was still somewhat linked to a medical view, the perception of school professionals also included prevention and health promotion practices in order to offer guidance, emotional support, professional listening, warmth environment, and a qualification of educational processes, all of which should include teachers and school staff as well. Bertollo-Nardi, Avellar, Silva, Trindade, and Menandro (2014), analyzing high school students' Social Representations of psychologists, also indicated elements that characterized changes in the view of psychologists' role and practices in school, in which both the offer of conversation places and a warmth environment were valued by the participants.

Coutinho, Oliveira, and Barreto (2015), rethinking pedagogical practices together with school professionals and students, called attention to a psychological practice in school that shift from a "healing" approach to one that values health promotion actions and contributes for the human development. The idea is that school psychologists can offer places for listening and reflecting on the teaching-learning processes, through a partnership with the school actors, which has potential to promote and improve the quality of life of the people who are part of the school.

Kub and Feldman (2015) mentioned the role of schools in promoting children's and adolescents' health based on the *Ottawa Charter* for Health Promotion (presented at *the First International Conference on Health Promotion*). This charter emphasizes a health integration approach and social development in schools, with focus on physical and social environments, health policy, personal health skills, community relations, and relationships with health services in the school context.

Despite the fact that scholars have been discussing the importance of psychological practices in promoting health in schools, there is a lack of empirical studies that exemplify and investigate these practices. This lack of academic work on the area provides evidence of the importance of expanding the knowledge through researchers embedded in the school reality, which will contribute to understanding the relationship between theory and practice and may produce real change. We believe that when psychologists pay attention to health processes within the school, then they will be able to establish a more defined and legitimate space for their practices, which includes education and human development processes (that are close related to health factors).

In this paper, we consider health in a broader way, as presented in the *Ottawa Charter* (Carta de Ottawa, 1986), which is a landmark document dealing with the promotion of health. According to this charter, "Health should be seen as a resource for a life, not as a goal to live. In this sense, health is a positive concept, emphasizing physical and personal resources, as well as physical abilities." As such, the school psychologist who works from a health perspective has a range of work possibilities, so as to intervene on the personal and social resources of the participants of the school community, paying attention to activities that value the resources for the construction of healthy life projects, considering the specificities of the context in which they are embedded and the needs of the individuals involved in this context.

From this perspective, the Brazilian Ministry of Health proposed aspects that characterize health promotion, such as: listening practices by qualified professionals, attention, care, autonomy, and consideration of individuals' singularity in their processes of organization and construction of life (Brasil, 2015). Thus, reflecting on health promotion practices in the educational context contributes to a psychological practice in the service of life and enables an articulation with other school professionals, overcoming the stereotyped vision of psychological reactive work that is problem-focused. Based on the ideas presented here, we seek to expand the knowledge in the educational psychology area, integrating theoretical and practical aspects related to the psychological professional performance of a psychologist in educational institutions, from the experiences of professionals embedded in schools, with a focus on promoting health.

2. Objective

The main goal of this study is to understand psychological practices of health promotion in an educational institution.

3. Method

This study is characterized as a case study, which, according to Gil (2009), consists of a research design that: values the unitary character of a contemporary phenomenon, is articulated to its context, and allows the data to be obtained in greater depth. Thus, this research design is adequate for the purposes of this study, which seeks to understand actions of health promotion in the practice of a psychologists in an educational institution, constituting as a technically unique situation (a characteristic of case studies).

3.1. Data collection procedures

Documentary research technique was used to collect data, which, according to Souza and Menandro (2007), comprises of a sequence of procedures: (a) location of the documentary material; (b) selection of relevant information to the investigation; (c) organization of selected information; and (d) analysis and interpretation of the data and construction of inferences.

In this paper, work records were used as data source; these were completed by a psychologist in an educational institution over three years (2012 to 2014). The annual work reports included a brief description of all the activities carried out throughout the year, with some professional insights on the development of the activities. From these reports, some collective activities aimed at interventions in the school routines of students were selected for analysis. These activities were conducted in the classroom or outside. The selected activities were analyzed based on aspects of Health Promotion, such as attention, autonomy, vulnerability, resolution, and warmth environment, as recommended by the Brazilian Ministry of Health (Brasil, 2015).

Moreover, considering the importance of reliability in obtaining and analyzing the data, the data analyze were conducted by three judges, including postdoctoral researchers with expertise in health promotion. The judges analyzed the documentary material independently using the same script for each intervention activity selected. This procedure is important to decrease the probability of bias by not relying on a single researcher's perspective, but instead counting on external collaborations that allow to reflect on the elements and characteristics of the material.

3.2. Data analysis procedures

Content Analysis technique was used for data analysis, as proposed by Bardin (2007). The following procedures were carried out: (a) Pre-analysis of documentary material to define and select, within a range of documents, the ones that were aligned with the goals of this research and should be analyzed. (b) Exploration of the material, which consisted of coding and categorizing the information found in the documents selected in the previous phase; the coding were done considering the script parameters established based on concepts of Health Promotion proposed by the Brazilian Ministry of Health (Brazil, 2015). (c) Finally, treatment and interpretation of results, in which inferences and interpretations were developed from the categorized data, thus, building knowledge that makes it possible to understand actions to promote health in the practice of psychologists at an educational institution.

4. Results and discussion

Given that data analysis is still in process, we will present here some preliminary analyses. A total of fourteen (14) interventions conducted by the psychologist in the educational institution were selected for the analysis; from these interventions, five (5) took place in 2012, five (5) in 2013, and four (4) in 2014.

We found that the professional practices of the psychologist in the educational institution investigated included the development of activities with different professionals at schools, such as teachers, pedagogues, and social worker; this is in line with the idea of health promotion as characterized by a partnership among professionals from different areas (Brazil, 2015). The establishment of multidisciplinary partnership relations is very important in the work process taking place at educational institutions, given that the interventions carried out usually bring together a number of issues and, thus, relying on the knowledge of other professionals enriches the interventions and care based on the needs of the targeted public.

Another important aspect of health promotion is related to the evaluation and contextualization of activities in the context in which the targeted people were embedded. Related to that, the data analyses indicated that the interventions conducted by the psychologist considered the challenging reality of the region in which the educational institute is located, including the pedagogical-political project of this institution. It is interesting to note that, over the years, there was a greater appreciation of the integration of the activities to the institution and of the students. In this sense, it is essential to consider the context

throughout practical experience in order to promote greater effectiveness of the intervention activities. However, the contextualization aforementioned was more related to the institution's aspects and needs, than to the students' needs. For example, when offering game workshops to promote mathematical and logical reasoning in a ludic manner, the activity was initially developed to minimize the index of low grades in mathematics and to improve the institutional index; however, in the process of developing the workshop, the tasks were adapted to the reality of the participating students, which facilitated subjective constructions, articulating individuals' expressions to their sociocultural context.

Furthermore, aspects of attention in the interventions addressed here included the evaluation of narratives, needs, and problems brought up by the participants, with the professional listening to their life histories and their personal potentialities. In regard to that, the intervention activities were composed of spaces for students to express their feelings and ideas, in which there was sharing of information related to the topics worked in each activity in accordance to its goals, allowing the debate and elaboration of strategies that considered the context of the educational institution and the personal characteristics of each student participating in the intervention.

Besides that, aspects of autonomy addressed in the interventions included the importance of active participation, sharing of knowledge, implication in the activities' tasks, and the valorization of the participants' potentialities, allowing them to build singular knowledge. Thus, the intervention activities carried out in group enabled students to talk about their personal experiences, share their knowledge, and experiences, and debate them in a collective manner. For example, in a group intervention activity aiming to discuss aspects of vocational guidance, a student evaluating the activity stated that it was positive "to *have a space for the reflection of our skills and being able to share with colleagues the anguish that is involved such a decisive choice in our lives.*" Thus, these activities fostered students' involvement in the activities.

Providing a warmth environment is also considered a fundamental aspect in the process of health promotion, in which the professional offers an attentive listening and is there for the individuals participating in the intervention. These activities promoted a privileged space in which the professional was available to the participants of the intervention. They proved to be healthy environments to deal with anxieties and conflicts raised by students, which many times were not clear on the daily life of the school. Some students stated that they enjoyed talking to the psychologist, based on their experiences with this professional during the intervention activities.

Potential risks linked to research activities include any social, political, and cultural aspects that, related to a particular social context of the individual or the group, can cause a situation of greater or lesser exposure to diseases and injuries. We did not identify any potential risk of the interventions carried out to the participants. In contrast, we believe that carrying out an intervention and listening to the students foster attention to the vulnerabilities of this public, given that these actions allow the understanding of contextual variables in which the individuals live, including eventual vulnerabilities.

Resolution, such as the possibility of potentially solving an issue or situation, is also an important aspect of health promotion. The results in this study indicated that the intervention activities allowed the students to reflect on their experiences in the school context, enabling the possibility to reflect on their behaviors and attitudes and to construct strategies to better behave in the situations debated during activities.

In sum, psychologists working in the school context can enhance their effectiveness when considering aspects of Health Promotion. Being attentive to students, listening their narratives, and building with them new ways of experiencing the educational environment, enables the construction of life projects, in which the student is active, showing their potentialities within their life context.

5. Conclusion

In Brazil, the National Policy for Health Promotion (Brazil, 2015) values several aspects, such as: interdisciplinary actions; contextualization of professional activities; attention to individuals; autonomy of the people participating in the interventions; establishment of a warmth environment to the individuals' demands; consideration of possible vulnerabilities of the targeted public; and the resoluteness of the actions carried out in the activities, given that they enable the development of care strategies, which include respecting the specificities and potentialities of the individuals.

In conclusion, the preliminary results presented here indicated that aspects of Health Promotion may help professionals of psychology who works in educational contexts to build and consolidate their practices. The elements presented here can be used as a guide, offering a work in which care and integrality of the actions are valued. Thus, the following elements are considered as crucial to the psychological practices in educational institutions: attention, warmth environment, promotion of autonomy, among others. These elements indicate a work that values the care to the individuals in need of intervention.

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RISK TAKING IN STUDENTS: BUILDING A COLLABORATIVE APPROACH WITH SCHOOLS IN INDIA

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Abstract

Robust evidence attests to the increasing rates of risk taking behaviors in schools in India. From small instances of breaking rules to involvement in riskier behaviors like drinking, smoking, under-aged driving and aggression are being seen. To understand the problem a survey with 2886 students was conducted by the Department of Mental Health and Behavioural Sciences. The survey was designed to develop an understanding of the prevalence of the problem and the measures students thought can be effective in combating it. The students indicated that besides sharing and discussing with friends, 79% believe that parents and schools can form an important mediating factor. The paper outlines the creation of a collaborative approach which utilizes the multimodal dimensions of peer influence, parental involvement and school based systems and approaches to help with reducing the incidence of risk taking behaviors in schools.

Keywords: Risk taking, aggression, collaborative approach, school based systems, peer influence.

FINANCIAL EDUCATION AS AN INTEGRATION INSTRUMENT IN A PROFESSIONAL EDUCATION INSTITUTION

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Abstract

This paper is an experience report of a financial education course that occurred in an educational institution in an integrated job with a professor of finance and a psychologist. The students involved were adolescents in the last year of a technical management course integrated to high school. The duration was 5 months with 15 classes and the participants were submitted to discussions about money use, emotional issues, self-control and investments in fixed income and variable income assets. It is important to note that at the same time the course was offered, the Brazil lives a bigger crisis registered after inflation problem at 1998 that is a first crisis that this adolescents saw at all your lives. As an auxiliary decision-making method, we used a model to work on self-control (in Portuguese called 6Ps Paro! Penso! Preciso? Pesquiso. Posso? Pago! - I stop! I think! Need I? I search. Can I? I pay!). The experience allowed to discuss about aspects of personal resources management, enhancement the knowledge of students at school and presentation of the practical theory integration possibilities (such as administration-psychology), resignifying the school environment and the importance of the school in rational and sustainable adult consumer behavior. This work also highlights the importance of interdisciplinary work between administration and psychology, showing students, in practice, that it is possible and necessary interlocutions of knowledge in daily life, because life is permeated by various situations and forms of analysis to reach a decision making.

Keywords: Financial education, psychologist performance, school psychology, public school education.

1. Introduction

The integration of disciplines and knowledge in the school contributes so that the student is not only a receiver of knowledge, but a principal actor, meaning the school environment in a practical way. Thus, a professor in the area of administration and finance and a psychologist verified the difficulties of the students in understanding and applying the knowledge acquired in the disciplines in their personal life, organized a course of financial education, aiming at the knowledge on resource management practices in order to problematize consumption behaviors and the management of personal resources and their families.

Financial Education is defined by the OECD (Organisation for Economic Co-operation and Development, 2005) as a process of enhancing understanding and awareness of risks and opportunities to improve financial well-being, and integrates a variety of factors influencing resources. Thus, the construction of an interdisciplinary work in the school environment in a financial education course, allowed to approach mathematical, financial, emotional and strategic aspects, involved in the relations of management of financial resources.

The OECD (2005) recommends that financial education should start in school. Thus, reflecting with adolescents about consumer behavior is important to understand, for example, the meanings they attribute to the act of buying. In this context, Lins and Poeschl (2015) found in Brazil and Portugal evidences that for adolescents the meaning of buying was related to spending at the mall with clothes.

In Brazil, financial education initiatives to make important, given the growing number of Brazilians involved in debt, the increase in the unemployment rate and high inflation, especially when the course began. Scenario that the generations born in the 1990s and 2000, target audience of the course, had

not experienced, creating an environment of uncertainty, which resulted in a large number of students registered to participate in the course.

Despite the existence of the National Financial Education Strategy - ENEF (Brazil, 2010) instituted in 2010 in Brazil, which provides for the implementation of financial education practices in public and private educational institutions, the effectiveness of the actions still is not a reality in schools. Thus, this study reports the development of a financial education course conducted by a finance professor and a psychologist for finalist students of a high school educational institution integrated with technical education, whose objective was to mitigate the various problems about consumption and lack of planning, which harms the development of healthy aspects of life.

2. Method

The financial education course was offered to high school finalist students integrated with the technical education of a public educational institution. The course proposal, the objective, the day, the time and the duration of the meetings was announced in classrooms. Students were able to register according to their interest. The meetings took place once a week, totaling 15 meetings distributed in 5 months and were realized after the end of the class, lasting approximately 50 minutes. The course was developed in the years 2015, 2016 and 2017, serving a public of more than 200 students.

To register, students should access a virtual form describing your personal data and answering a few questions about their consumer behaviors, feelings, and how they dealt with their financial resources. The data in the registration phase were used for the development of teaching materials, giving greater insertion of the student in discussions and approaching the issues of your reality.

At the first meeting the students presented their expectations about the course and their consumption behavior, rescuing the data inserted in the form. In the second meeting, the relation between emotions and consumption was discussed. In the third meeting, worked on advertising and its influences on consumption. In the fourth meeting the aspects of self-control in the consumption question were evidenced, and a proposal of conscious consumption was presented, called in Portuguese of 6Ps model.

In the fifth meeting the topic was the personal budget, from a expenditure spreadsheet the students observed the use of personal and family financial resources. At the sixth meeting, the budget cut was worked.

In the seventh meeting the relation time and money was approached from the knowledge of financial math. In the eighth and ninth meetings, topics related to fixed income investments were developed. From the tenth to the thirteenth meeting, possibilities of investment in variable income were presented. At the fourteenth meeting, the parents participated and were able to verify how the course was developed, also presented their perceptions about the behavior of the sons.

Finally, at the fifteenth meeting, there was a moment of evaluation with the students in which they presented the strengths, weaknesses, suggestions and critiques of the course. In addition, students complete a form assessing the impacts of the course on their lives.

The course offered a certificate for students who have attended at least 75% of the meetings.

The organization of the meetings included a presentation of the contents of videos, dynamic, music and stock purchase simulator. The debate was valued throughout the course, encouraging student participation with examples of their lives and perceptions about the material presented.

3. Results and discussion

At the first meeting, the students sharing their expectations about the development of the course, showed interest to learn to manage their resources, to save money and to start your investments. In the second meeting, the relation between emotions and consumption behavior was presented, and the students brought discussions and examples about anxiety issues and consumption practices, including those related to finalization of an educational stage and the beginning of another, because, being finalists of a high school course integrated with the technical education, next year would experience a new reality of life, as many would go out of his parents' house to live in other cities in order to reach a higher education, managing their financial resources.

In the third meeting we discussed consumption from the advertisements. The proposal was to dialogue and reflect on individual desires and needs, and students discussed the act of consumption as a repetition of socially established behaviors on many occasions. And they verified the necessity of problematizations about the act of buying for themselves and their family reality.

It was built an auxiliary decision-making method for the course, in portuguese called 6Ps (Paro! Penso! Preciso? Pesquiso. Posso? Pago! - I stop! I think! Need I? I search. Can I? I pay!), which has as a characteristic a pause for the consumer to evaluate their consumption behavior. Initially the person should

stop and reflect on the item that he wants or needs; then, *think* about the purchase of the item; after that, the *need* for the item should be evaluated; so if the item is not evaluated as necessary, one should discard the purchase and stop the decision making process, however, if evaluated as necessary, the product price is *searched* on the internet and other stores; evaluated the prices, ask yourself if you *can* buy the item, if there is the resource to make the purchase or if it is better to expect to accumulate a greater amount of money to make the purchase; finally, after performing the previous exercises and obtaining the affirmative answer for everyone, *payment* is made.

The presentation of this model produced great discussion among the course participants. Students reported using this method of day-to-day decision making, sharing with family and other colleagues who were not attending the course.

The meeting on the presentation of the expenditure spreadsheet included the items: housing, eating, dressing, going and coming, personal care, health, studying, entertainment and financial expenses, enabling students to understand how they used their financial resources. Many students were surprised by the amounts spent by category resulting in discussions with colleagues and their families about the importance and necessity of doing the cut of some items, topic of the next meeting.

Thus, considering the knowledge acquired in the course, students were able to reflect on their needs and superfluous expenses, exercising the possibility of cutting expenses. In the discussions at that meeting, the students found that what was necessary for some was superfluous to others, such a debate was interesting and made it possible to relocate the use of some budget items.

Then, the definition of investment was presented and the majority of the adolescents knew as investment modality only the savings account, which evidenced the importance of the financial education course. In this way, presented the concepts of fixed and variable income with the exemplification of the different possibilities.

In the meeting with the parents, the methodology of the course was presented and how each meeting was held, highlighting the discussions about consumption behaviors and how they should be deal with to assist the students in the practical application of the knowledge acquired on the use of money, investment and personal organization. Parents were invited to evaluate the course and most of them noticed some change in their sons behavior, reporting that many were becoming aware of their individual and family spending, opening up in many families the discussion about financial resource management.

At the final meeting the students evaluated the course, highlighting: the importance of shared knowledge; understanding how to deal with financial matters; the acquisition of a broader view of the financial market and the various investment possibilities; the relation between what was presented at the meetings and the individual reality; and the change seen in relation to consumer behavior - think before buying, contributing to conscious consumption. As criticisms and suggestions students reported the need for greater detailing of some concepts and the importance of continuity of the course.

The students affirmed that the course collaborated in terms of the construction of academic and practical knowledge, thus, the importance of the theory-practice integration in the school environment was verified. They valued the integration between the areas of finance and psychology and reflected on the subjectivity in economic behavior and the application of the topics debated by the disciplines in the daily life.

4. Conclusions

The development of a proposal of integration between the areas of administration, finance and psychology through a financial education course, from the reality of finalist students of a high school course integrated to technical education in a public educational institution evidenced the need development initiatives integrating the knowledge gained in the classroom to practice, allowing the student to reflect on dialogues of knowledge in daily, because life is permeated by different situations and forms of analysis to arrive at a decision-making.

It is necessary to consider the importance of psychology in the school environment put at the service of new ways of doing because, from the development of the course, the view of psychology was demystified by many students who understood it as a space for only people with problems. Students have come to see psychology as another resource in the school environment to talk about professional decisions; relationship with colleagues; feelings related to the finalization of the course; and the search for new spaces of formation, that is, the students sought the service to talk about different aspects of life.

After the first class at 2015, the exponential growth in the search to participate in the course was noted, maybe because the statements made by the students who participated, the changes perceived by their colleagues and the aggravation of the Brazilian economic crisis. In addition, the professionals involved in the course development were included in classroom discussions and projects related to other subjects, bringing the different areas of knowledge closer.

The model to work on self-control proved to be adequate when valuing emotional and financial aspects, constructing an integrated work in the school environment that addressed aspects of the management of personal resources that are part of the daily life of each participant, valuing students knowledge and collaborating with formative processes that favor the theoretical-practical approach.

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PERSONAL AND FAMILY FACTORS AS PREDICTORS OF ACADEMIC ACHIEVEMENT OF UNIVERSITY STUDENTS

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Abstract

A large number of factors can account for the academic achievement during schooling. Among them, the most commonly studied ones are the role of general intelligence and various intellectual abilities. The importance of the concept of multiple intelligence has increased since the 1990s. Many studies have shown that family context can be considered a factor that contributes to the formation of a positive attitude towards education and have indicated some educational styles desirable for academic functioning. The aim of this study was to investigate the relationship between intellectual abilities, the locus of control, parenting styles and academic achievement in students. Precisely, the question posed in the study was whether the academic achievement of university students could be predicted by the individual's locus of control, some forms of intelligence, and perceived parenting style of their mother and father. The research sample consisted of 100 university students (50 females) of the Faculty of Teacher Education, University of Niš, Serbia, aged 20–24. They completed the following questionnaires: 1. Parenting Styles and Dimensions Questionnaire (PSDQ, Robinson et al., 1995) consisting of 32 items, and intended to measure Authoritative style (with sub-dimensions Connectedness, Regulation, Autonomy), Authoritarian style (Verbal hostility, Constraint, Non-clarification) and Permissive style; 2. Locus of control scale (Bezinović, 1988), according to Rotter's concept of an internal-external locus of control, consisted of 10 items; 3. The Inventory of Gardner's Multiple Intelligence Model (Armstrong 1993), used to evaluate the eighth forms of intelligence, with 80 items – linguistic, logical-mathematical, spatial, musical, kinesthetic, interpersonal, intrapersonal, and scientific. The obtained data were processed by multiple regression analysis procedures. The first regression model, with the parenting styles of the mother and the father as predictors, was statistically significant and accounted for 15.4% of variance of students' academic success ($R = .393$, $R^2 = .154$, $p < .014$); The authoritative style of mothers was the only significant predictor ($\beta = 0.328$, $p < 0.05$). The second regression model showed that the internal locus of control could explain 7.3% of the variance of students' academic success ($R = -.269$, $R^2 = .073$, $p < .007$). The third regression model was not significant ($R = .279$, $R^2 = .078$, $p = .475$) and indicated that forms of intelligence were not predictors of academic achievement of university students. Having in mind that there was a large proportion of variance unaccounted for by the present factors, future research in the field should focus on adding some other factors to improve the explanation of academic performance.

Keywords: Parenting styles, locus of control, multiple intelligence, academic achievement, university students.

1. Introduction

Numerous studies of adolescents' academic achievements point to the fact that it is conditioned by various factors, e.g., gender, education of the parents, family size and structure, socio-economic conditions in which the family lives, self-esteem, personality traits, parental parenting styles, the locus of control, intelligence etc. (Babarović, Burušić and Šakić, 2009; Milošević and Ševkušić, 2005; Šarčević and Vasić, 2014). School performance is often associated with a good social integration level and material status of adolescents and it significantly contributes to positive self-evaluation. Considering the ongoing development of theories of intelligence, as well as theories about parenting styles, the question arises which of these factors is a more important predictor of the academic achievement of students. In addition to these factors, it is also important to examine the locus of control as a predictor of academic success. Intelligence is depicted from the perspective of Gardner's theory of intelligence, the locus of control from the perspective of Rotter's theory, while parenting style are examined from the perspective of Diana Baumrind's theory.

Academic achievements are clearly stated competencies, i.e., the expected knowledge, skills and abilities, values, and attitudes that pupils should acquire and be able to demonstrate upon the successful

completion of a particular teaching subject, program, level of education, or educational cycle. It can also be determined as an endeavor of students to achieve better grades or to achieve learning progress in a faster and more efficient manner. Some authors (Stanisavljević-Petrović, 2008, according to Erdeš-Kavečan, 2011) point out that success and failure in schooling are presented as two aspects of a unique process, whose study is only possible if they are viewed as interdependent processes. Initial considerations of the factors of educational achievement gave the greatest importance to intellectual abilities, while subsequent research has shown that the factors of personality and motivation are also important for educational achievement.

The most common way of researching educational achievement is through the average grade at the end of the school year in primary and secondary schools or at the end of the academic year at universities (Šarčević and Vasić, 2014). Academic achievement is determined by a person's individual capacities and by his/her socialization in a particular family and social milieu. Relevant literature most often explored the individual capacities of a person through the concept of intelligence.

The contemporary concept of the structure of intellectual abilities is based on Gardner's multiple intelligence theory. Abandoning the idea of intelligence as a unified concept, Gardner has built a theory which proposes several dimensions of intelligence: visual-spatial, musical, verbal-linguistic, logical-mathematical, interpersonal, intrapersonal and bodily-kinesthetic intelligence, naturalistic intelligence and existentialist intelligence (Gardner, 1983, according to Visser et al., 2006). *Verbal-linguistic intelligence*– It encompasses a profound interest in words and the way words are used in reading, writing, and speaking. *Musical intelligence*– People who have developed this kind of intelligence do not only love and enjoy music, but also understand rhythm, melody and sound motives better, easily remember melodies, and feel the difference between different instruments playing at the same time. *Logical-mathematical intelligence* – This kind of intelligence involves the use of numbers and mathematical concepts, finding patterns, and the ease in perceiving relationships, causes, and consequences in science. *Visual-spatial intelligence* – What is inherent in this type of intelligence is that it is about learning and thinking in pictures. *Bodily-kinesthetic intelligence* – This intelligence is present in people who express themselves and their abilities using their body. *Interpersonal intelligence* – This intelligence is present in people who easily get to know people and make friends, enjoy group activities, care for other people and about what is right and what is wrong. *Intrapersonal intelligence* – It implies a tendency of people to be more turned to themselves because they know themselves well and have a good idea of who they are and what they are able to do. *Naturalistic intelligence* – This type of intelligence is present in people who love nature and the environment they live in, observe nature wherever they are, love animals and plants and easily recognize them and show interest in everything that concerns nature. *Existentialistic intelligence* – This intelligence involves the person's sensibility to deal with the deep issues of human existence, such as the meaning of life, why we die, and how we lived. This type of intelligence has not yet been confirmed.

When it comes to academic performance, in addition to intelligence, it is important whether a person views his own influence in creating goals and plans in terms of his/her achievements. This personality factor, which represents a significant driver of all activities, even those aimed at academic success, is presented in the psychology as the locus of control. The concept of the locus of control denotes the degree to which a person believes that the causes of what is happening to him/her lie in the external circumstances that he/she cannot control, i.e., the degree of belief that he/she is responsible for what is happening to him/her (Rotter, 1966, according to Crnjaković et al., 2008). A conceived locus of control is a continuum, with the people that believe that they have an impact on the events and outcomes of their behavior at one end, and the people who believe that external factors determine the events in their life at the other. An internal locus of control is a phrase describing people who believe that the outcome of future events depends on their actions, abilities, and commitment. The external locus of control refers to the expectation of an individual that the ability to control events is outside of the person, in the hands of other powerful people, God, or destiny/luck.

In addition to the intellectual abilities and locus of control, research shows that parents also have a significant impact on the achievement of children in school. A disorder in the parent-child relationship causes low motivation for achievement, learning disorders, and many other problems in cognitive and social development (Bean et al., 2003, according to BoričevićMaršanić, 2011). Diana Baumrind (Baumrind, 1967, according to Spera, 2005) conducted the first longitudinal study of the connection between the parenting style and the academic achievement of the students. She found that children of pre-school age whose parents used the authoritative style were more independent, prosocial, active and goal-oriented as compared to children whose parents were authoritarian or permissive. A sample of adolescents showed the connection between authoritative style and school achievement (Baumrind, 1989, according to Spera, 2005), which would mean that children whose parents are authoritative have higher average grades. In a survey by Dornbusch and associates (Dornbusch et al., 1987, according to Milošević, 2002), performed on a sample of about 8,000 adolescents of different socioeconomic status, whose main goal was to determine the connection between parents' upbringing styles and school achievement, there

was a positive correlation between an authoritative parenting style and success in school, as well as a negative connection between the permissive and authoritarian parenting style and success in school. Robinson, Mandleco, Olsen and Hart, 1995, are authors of the PSDQ scale, which examines parenting style, according to Diana Baumrind's theory. Their questionnaire is made up so that the *authoritative* (democratically-consistent) parental style is characterized by three sub-dimensions, which are connectedness, regulation, and autonomy. Authoritative parents have great demands of the child, set boundaries, and supervise, but provide the child with great warmth and support. (Baumrind and Thompson 2002, according to Matejević and Todorović, 2012). The *authoritarian* (autocratic, rigid-strict) upbringing style refers to the behavior of parents who have high expectations and demands for their children. The three sub-dimensions of the authoritarian style are constraint, verbal hostility, and non-clarification (Robinson, Mandleco, Olsen and Hart, 1995). Authoritarian parents exhibit a highly expressed level of control and expectations and do not have two-way communication with their children (Baumrind 1968, according to Matejević and Todorović, 2012). The *permissive* (tolerant) parenting style is characterized by a low level of control and demands, with a general acceptance and warmth in relationships. Such parents do not have consistent disciplinary requirements. The children who grow up in these families are open, kind, and socialized, but they cannot obey rules and often become irresponsible.

2. Objectives

The basic problem of the research is to examine whether different types of intelligence, the locus of control, and certain parenting style are statistically significant predictors of academic achievement in university students. The **research goals were**

1. Determine whether types of intelligence (logical-mathematical, visual-spatial, music, verbal-linguistic, interpersonal, intrapersonal, bodily-kinesthetic, and naturalistic) are statistically significant predictors of academic achievement among students of the University of Niš.

2. Determine whether the locus of control is a statistically significant predictor of academic achievement among students of the University of Niš.

3. Determine whether parenting styles (authoritative, authoritarian and permissive) are statistically significant predictors of academic achievement among students of the University of Niš.

3. Methodology

The respondent sample consisted of 100 students, aged 20–24, and balanced regarding gender (50 male and 50 female). The research involved students from the Faculty of Teacher Education in Vranje. Mainly respondents mothers (70) and fathers (64) completed secondary school.

Gardner's Multiple Intelligence Inventory was used to evaluate the types of intelligence (Armstrong, 1993). The questionnaire consisted of 80 items with a five-point Likert scale. There are eight subscales (10 items each), intended to measure: linguistic intelligence, logical-mathematical intelligence, spatial intelligence, bodily-kinesthetic intelligence, musical intelligence, extrovert (interpersonal) intelligence, internal (intrapersonal) intelligence, and naturalistic intelligence. The reliability was Cronbach's $\alpha = 0.67$ or higher (Visser, Ashton, and Vernon, 2006).

The *Scale of External Locus of Control* (Bezinović, 1988) was used to estimate the locus of control. It was based on a five-point Likert scale and contained ten items. The reliability of the questionnaire is sufficient ($\alpha = 0.80$ Mladenović and Knebl, 1999).

Parenting styles were evaluated using a *PSDQ* (*Parenting Styles and Dimensions Questionnaire*), where the parenting styles of the mother and father were assessed separately. The items were arranged in three scales: *Authoritative* (15 items)*, Authoritarian* (12 items) and *Permissive* (5 items). Cronbach's alpha reliability coefficient is 0.91 for the authoritative style scale, 0.86 for the authoritarian style, and 0.75 for the permissive style.

4. Results

The important question of this research was the predictive power of certain types of intelligence in relation to academic success on the university students. Multiple linear regression analysis was used to examine this research objective. The predictors were the types of intelligence according to Gardner's model, and the criterion was academic achievement.

Table 1. Types of intelligence as predictors of academic achievement in the student sample

Model	R	R^2	Adjusted R^2	Standard error	F	P
	0.279	0.078	-0.003	0.988	0.957	0.475

R – coefficient of multiple correlation, R^2 – coefficient of multiple determination

In this case, the model was not statistically significant (F = 0.957, p> 0.05). The coefficient of multiple correlation is R = 0.279 and indicates that there is no connection between the types of intelligence and academic achievement in the student subsample. Multiple linear regression analysis was used to test the locus of control as a predictor of academic achievement. The locus of control was the predictor, while academic achievement was the criterion.

Table 2. The locus of control as a predictor of academic achievement in the student sample

Model	R	R^2	Adjusted R^2	Standard error	F	P
	-0.269	0.073	0.063	0.954	7.669	**0.007****

** statistically significant at the level of 0.01

The model was found to be statistically significant (F = 7.669, p <0.01). The coefficient of multiple correlation is R = -0,269 and indicates that there is a low connection between the locus of control and the academic achievement within the student subsample. The percentage of explained variance on the academic achievement dimension attributable to the predictor is 7.3%. A more pronounced internal locus of control significantly contributes to anticipating higher student academic achievement.

The important question in this research was related to the relationship between the dimensions and sub-dimensions of parenting styles on the one hand, and academic achievement on the other. Multiple linear regression analysis was used. The dimensions and sub-dimensions of parenting styles were the predictors, while academic achievement was the criterion.

Table 3. Parenting styles as predictors of academic achievement in the student sample

Model	R	R^2	Adjusted R^2	Standard error	F	P
	0.393	0.154	0.100	0.935	2.830	**0.014***

*statistically significant at the level of 0.05

The model was found to be statistically significant (F = 2.830, p <0.05). The coefficient of multiple correlation is R = 0.393, which indicates that there is a moderate connection between the dimensions of parenting styles and academic achievement. The percentage of explained variance on the dimension of academic achievement attributable to the tested set of predictors is 15.4%.

Table 4. The dimensions of parenting styles as predictors of academic achievement in the student sample

Predictor variables	Beta	Statistical significance	Zero-order correlation	Partial correlation	Semipartial correlation
Authoritative style of the father	-0.069	0.685	0.176	-0.042	-0.039
Authoritarian style of the father	-0.293	0.175	-0.285	-0.140	-0.130
Permissive style of the father	0.001	0.996	-0.092	0.001	0.000
Authoritative style of the mother	**0.328**	**0.040***	0.273	0.211	0.198
Authoritarian style of the mother	0.057	0.790	-0.266	0.028	0.025
Permissive style of the mother	-0.075	0.632	-0.113	-0.050	-0.046

Beta – β – standardized coefficients, *statistically significant at the level of 0.05

In the model with a separate set of predictor variables, only the authoritative style of the mother is shown as statistically significant predictor of students' academic success (β = 0.328, p <0.05). A greater expression of the authoritative style of the mother contributes to better academic achievement of the student.

5. Discussion

The obtained results showed that there is a moderate connection between the dimensions of parenting styles and academic achievement. A statistically significant predictor of academic success within a student is the dimension of the authoritative style of the mother. Students whose mothers set high demands, set boundaries, and supervise their upbringing, but provide them with warmth and support, can achieve greater academic success. The findings are in accordance with the starting assumptions and some previous research (Baumrind, 1989, according to Spera, 2005). Steinberg, Elmen and Mounts (1989, according to Matejević and Todorović, (2012) also reported about positive impact of the parents' authoritative attitude on the students' achievement in school. An authoritative style that involves a high level of emotional involvement by the parents toward the child is associated with the most desirable development outcomes in children: a high level of competence, self-confidence, independence, higher academic achievement, and responsible behavior. Lamborn and associates (Lamborn et al., 1991,

according to Matejević and Todorović, 2012) found that adolescents coming from authoritative families have significantly higher academic competencies, a lower level of problematic behavior, and higher level of psychosocial development than adolescents from authoritarian, permissive, and neglecting families.

The results showed that the types of intelligence are not significant predictors of school success. This is in line with the findings of Furnham and Čamoro-Premuzić (2004) that intelligence had a very low predictive power in higher levels of education. The correlation between intelligence and school achievement at lower levels of schooling is higher, as there was no prior selection of students, which is typical on the highest levels of education. Because of that, variability of intelligence is lower then in higher level of education. According to the obtained results, parenting styles are better predictors of students' academic achievement then their intelligence and locus of control. The findings suggest low connection between the locus of control and students' academic achievement, which is in line with the results reported by Šarčević and Vasić (2014). The internal locus of control is connected to an authoritative parenting style, and it has small but significant contribution to academic performance, since it is a way the adolescent takes control of his/her learning outcomes. So, there is a need to continue study in this field with aim to increase the proportion of explained variance by including some other personal and family factors.

Acknowledgements

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PARENTS' ATTITUDES TOWARDS LEARNING DISABILITIES PROGRAMMES IN CYCLE ONE SCHOOLS IN THE GOVERNORATE OF MUSCAT

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Abstract

The study aimed to investigate the attitudes of parents of students with learning disabilities towards learning disabilities programmes in primary schools in the Governorate of Muscat in the Sultanate of Oman. In addition, the study aimed to discover whether there are differences according to gender and parents' education level. The study sample included 503 parents (337 males, 166 females). A questionnaire consisting of 33 items was used for the study purpose. Attempts were made to ensure the validity and reliability of this measure. Results indicate that parents of students with learning disabilities had positive attitudes towards the learning disabilities programmes. Furthermore, the study found there were gender differences between parents regarding their attitudes towards learning disability programmes, and females tended to have more positive attitudes. However, there was no significant difference in parents' attitudes towards learning disability programmes based on their educational level. The results are discussed in terms of the parents' role in the educational process to improve the quality of provided services to the students enrolled in the learning disabilities programmes and, hence, improve their children's academic performances.

Keywords: Attitude, parents, learning disability programme, learning disability students, gender differences.

1. Introduction

Learning disabilities students tend to show low performance compared to their peers in the classroom. In addition, they face difficulties in communication skills and adaptive behaviour (Ditterline, Banner, Oakland, & Daniel, 2008). They do not respond to regular interventions, and therefore, the Sultanate of Oman began conducting a learning disabilities programme in its schools that included special strategies to meet learning disabilities students' needs. At the beginning, it applied the programme in three schools and then provided the special needs services to most of the schools by teaching the students individually or in small groups in resource rooms provided with materials and teaching aids (Ministry of Education, 2010). Al-Ghafri (2009) found that the resource rooms helped the learning disabilities students improve their educational performances and that resource rooms teachers also played a role in encouraging the students' responses. According to Mallick and Sheesh (2013) the attitudes of classroom teachers, students without disabilities, and their parents towards the special needs students were negative. Furthermore, the impact of labelling students with disabilities is not limited to the children themselves but also affects the parents because they refuse the term and think that the disability will affect their children's futures (Mahotiere, 2013). As maintained by Lalvani (2015) Parents have a propensity to locate the cause of the problems for children with disabilities in educational and social environments. The parents also believe that their role regarding participation and communication with the school is defined by helping their children with homework (Mahotiere, 2013).

2. Design

A descriptive analytical method involving a questionnaire of parents' attitudes was used to collect data.

3. Objectives

The purpose of the presented study and its research questions was as follows:

This study aims to investigate the differences in parents' attitudes towards learning disabilities programmes in cycle one schools in the Governorate of Muscat according to their gender and their education level.

Therefore, this study developed three main questions:

1. What are the parent's attitudes towards learning disabilities programmes in cycle one schools in the Governorate of Muscat?

2. Are there statistically significant differences in parents' attitudes according to their gender?

3. Are there statistically significant differences in parents' attitudes according to their education level?

4. Methods

4.1. Participants

The population of the study consisted of 1219 parents of learning disabilities students. The study sample included 503 parents (337 fathers; 166 mothers), who were selected randomly from various schools in the Muscat Governorate in the Sultanate of Oman and presented as 41% of the total population.

4.2. Instruments

A questionnaire was used. The first draft of the questionnaire contained 38 items reviewed by six faculty members from the Department of Psychology at Sultan Qaboos University, Sultanate of Oman. The final draft consisted of 33 items distributed to five domains related to acceptance (5 items), curriculum (6 items), learning disabilities teacher (8 items), communication with learning disabilities teacher (8 items), and resource room (6 items). In addition, the Cronbach's alpha formula was used to test the reliability of the questionnaire. The total reliability of the scale was r = 0.87, and the reliability of each domain was as follows: acceptance (r = 0.53), curriculum (r = 0.6), learning disabilities teacher (r = 0.69), communication with learning disabilities teacher (r = 0.79), and resource room (r = 0.59). A five-point Likert scale was used as follows: strongly agree (5), mildly agree (4), neutral (3), mildly disagree (2), and strongly disagree (1). In order to analyse the results, the mean was classified for three levels: (positive (M > 3), neutral (M = 3), and negative (M < 3).

4.3. Procedures

To collect data for this study, first, the questionnaires were distributed to the schools and were sent home to the parents by the learning disabilities students. Then, after two weeks the questionnaires were collected by the learning disabilities teachers at the schools. Finally, the questionnaires were analysed.

5. Results

5.1. One-sample t-test

The first question of this study was as follows: What are the parents' attitudes towards learning disabilities programmes in cycle one schools in the Governorate of Muscat? For this question a one-sample t-test was conducted, as shown in Table 1.

Table 1. One-sample t-test of parents' attitudes towards learning disabilities programmes.

Dimensions	*M*	*SD*	*T-value*	*P-value*
Curriculum	3.86	0.62	30.96	< 0.001
Acceptance	3.84	0.64	29.36	< 0.001
Communication with learning disabilities teacher	3.80	0.69	25.87	< 0.001
Learning disabilities teacher	3.75	0.59	28.50	< 0.001
Overall attitude	3.70	0.48	32.40	< 0.001
Resource room	3.20	0.67	6.59	< 0.001

Note. M = mean; SD = standard deviation.

Table 1 illustrates that all means of the scale's dimensions were significantly above the standard mean ($M = 3$) at $p < 0.001$. Therefore, we concluded that the parents' attitudes were positive towards the learning disabilities programmes.

5.2. Multivariate analysis

A Multivariate analysis of variance (MANOVA) was conducted to examine the differences between parents' attitudes towards learning disabilities programmes according to their gender and education level. The results are summarised in the Tables 2, 3 and 4.

Table 2. Means and standard deviations of parents' attitudes towards learning disabilities programmes with respect to gender.

Dimensions	Male (n = 337)		Female (n = 166)	
	M	SD	M	SD
Acceptance	3.78	0.63	3.96	0.64
Curriculum	3.78	0.60	4.02	0.65
Learning disabilities teacher	3.70	0.59	3.86	0.58
Communication with learning disabilities teacher	3.74	0.70	0.92	0.67
Resource room	3.12	0.65	3.36	0.69
Overall attitude	3.19	0.47	0.82	0.47

Note. M = mean; SD = standard deviation.

There was a statistically significant main effect regarding gender on parents' attitudes towards learning disabilities programmes (Wilks' lambda = 0.954, $F(1, 501) = 4.79$, $p = 0.001$). The influence of gender differences on each dimension was examined next. The results of the analyses are summarised in Table 3.

Table 3. Results of multivariate analysis of variance regarding effect of gender on parents' attitudes towards learning disabilities programmes.

Source	Dimensions	SS	DF	MS	F	P-value	Partial Eta Squared
	Acceptance	3.47	1	3.47	8.56	0.004	0.00
	Curriculum	6.06	1	6.06	16.04	0.000	0.02
	Learning disabilities teacher	2.99	1	2.99	8.67	0.003	0.02
Gender	Communication with learning disabilities teacher	3.58	1	3.58	7.52	0.006	0.01
	Resource room	6.44	1	6.44	14.65	0.000	0.01
	Overall attitude	4.27	1	4.27	19.10	0.000	
Error	Acceptance	202.83	501	0.41			
	Curriculum	189.38	501	0.38			
	Learning disabilities teacher	172.62	501	0.35			
	Communication with learning disabilities teacher	238.38	501	0.48			
	Resource room	220.10	501	0.44			
	Overall attitude	112.19	503	0.22			

Table 3 reveals that there were statistically significant gender differences at $p < 0.001$ between parents' attitudes towards the learning disabilities programme as an overall attitude and in all dimensions of the scale, and all of which favoured mothers over fathers: acceptance (partial ŋ2 = 0.00), curriculum (partial ŋ2 = 0.02), learning disabilities teacher (partial ŋ2 = 0.02), communication with learning disabilities teacher (partial ŋ2 = 0.01), and resource room (partial ŋ2 = 0.01).

Table 4. Means and standard deviations of parents' attitudes towards learning disabilities programmes with respect to educational level.

Dimensions	Elementary and below (n = 101)		Preparatory (n = 135)		Secondary (n = 177)		Diploma and above (n = 90)	
	M	SD	M	SD	M	SD	M	SD
Acceptance	3.69	0.65	3.82	0.61	3.90	0.67	3.91	0.61
Curriculum	3.82	0.66	3.82	0.61	3.90	0.59	3.90	0.67
Learning disabilities teacher	3.71	0.58	3.77	0.58	3.78	0.58	3.71	0.64
Communication with learning disabilities teacher	3.78	0.68	3.82	0.67	3.86	0.67	3.68	0.78
Resource room	3.26	0.63	3.18	0.73	3.23	0.63	3.10	0.67
Overall attitude	3.66	0.50	3.96	0.48	3.73	0.46	3.65	0.49

Note. M = mean; SD = standard deviation.

We found no significant main effect regarding education level on parents' attitudes towards learning disabilities programmes (Wilks' lambda = 0.962, $F(1, 501) = 1.29$, $p > 0.001$).

6. Discussion

This paper shows that all means of dimensions and the overall mean were high compared to the standard mean, which indicates that parents of learning disabilities students hold positive attitudes towards learning disabilities programmes in cycle one schools in Governorate of Muscat. The author attributed this result to the natural reaction of the parents when they learn about the disability of their child. Therefore, as reported by Boushey (2001), the psychological pressure resulting from the lack of dealing with this situation makes the parents search for services and specialists to help them understand their child's abilities. This result agreed with other studies (Elkins, Van Kraayenoord, & Jobling, 2003; ElZein, 2009; Somaily, Al-Zoubi, & Rahman, 2012; Leyser & Kirk, 2004; Livingstone, 2008).

The result also indicated that females' attitudes were more positive than males in all dimensions. A review of literature (see, for example, Somaily et al., 2012) reveals that there is no gender differences for parents attitudes towards learning disabilities programmes. Therefore, the study suggested that these differences between mothers and fathers could be attributed to the culture of the Omani's society, which considers mothers to be the parents who assist with study at home and communicate with female learning disabilities teachers more than fathers. Furthermore, this result also may attributed to the nature of mothers and their duty towards her kids by taking care of them since birth, getting more involve in their children academic life and dealing with their problems most of time. As a result, this is lead to an increase in mothers' attitudes than fathers.

The findings also reveal there were no significant educational level differences in parents' attitudes towards learning disabilities programmes. This result is line with Somaily et al., (2012) findings, while it is contradicts with those of previous studies Leyser & Kirk (2004) which found mothers and fathers with college education tended to believe more in the benefits of inclusion and Ding, Gerkin, VanDyke, and Xiao (2006) which revealed that the attitudes of Parents with lower education level were more positive in the dimension of communication between home and school. In this regard, the study suggested that this result might be partly due to the majority of the parents fell into the same education level in the first place which was a secondary school certificate and below, and there was little comparison to be made.

7. Conclusions

On the whole, this study was in agreement to many researches that discuss special education services from the parents' view. The results may provide researchers a greater understanding of the variables related to parents' attitudes. In addition, these results may draw educators' attention to providing parents with a larger role in the special education programme.

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PERSONALITY TRAITS AND LOCUS OF CONTROL AS PREDICTORS OF STUDENTS' SELF-EFFICACY

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Abstract

Self-efficacy refers to people's beliefs in their capability to produce given outcomes such as performing some actions and doing specific tasks. This is multifaceted concept including a differentiated set of self-beliefs linked to variety of domains of personal functioning. In this study self-efficacy refers to person's belief about his/her own competence to meet the expectations in three domains – social, emotional and academic (schooling). Generally, the study was aimed to investigate the relationship between personality traits, locus of control and student's self-efficacy. The research problem was to determine whether the students' self-efficacy can be predicted based on their personality traits and locus of control. The sample consisted of 200 high school students (100 females), aged 18-19. Personality traits were defined in accordance with the Big Five plus Two model (Smederevac et al., 2010) supposing the existence of seven broad personality dispositions: extraversion, neuroticism, openness to experience, conscientiousness, aggressiveness, positive valence, negative valence. The LOC scale (Bezinović, 1988) was used to determine whether a person believes that what is happening is due to a fate or external circumstance, or that he/she is responsible and able to control his/her behavior and actions. The questionnaire SEQ-C (Muris, 2001) was used to measure self-efficacy - social, academic, and emotional aspects. Precisely, self-efficacy refers to students' ability to control their emotions and to behave appropriately in social interactions and in the school. The obtained data were processed by the multiple regression analysis procedures, firstly including personality traits as predictors and secondly adding locus of control in the model. In both cases, extraversion was shown as the best predictor of social self-efficacy ($\beta = .550$, p <.000, $\beta = .562$, p <.000) and locus of control was also significant predictor ($\beta = -.188$, p <.004). Conscientiousness, negative valence and openness could explain 26.2% of the variance of students' academic self-efficacy (R=.510, R^2=.262, p<.000). If locus of control was added, the regression model included conscientiousness ($\beta = .283$, p <.000), negative valence ($\beta = -.188$, p <.016) and locus of control ($\beta = -.246$, p <.000). Emotional self-efficacy could be explained by positive valence ($\beta = .321$, p <.001) and aggressiveness ($\beta = -.199$, p <.013). The results showed that personality characteristics were better predictors of social and academic self-efficacy than of emotional one. The findings were discussed from the perspective of the theoretical framework of research and the empirical evidence in this field.

Keywords: Self-efficacy, personality traits, locus of control, students.

1. Introduction

Generally speaking, self-efficacy refers to the ability to achieve desired results. The meaning of this notion is determined by the words that are at its core: English *self* + Latin *efficax* i.e. effective, from *efficere* that means to accomplish, from *facere* to do (Colman, 2006). The concept became widely known in the 1980s and 1990s, largely through the influence of psychologist Albert Bandura and his social-cognitive theory of behavioral change (1977; 1997). Self-efficacy also refers to the person's confidence in his/her own capabilities of organizing and executing the actions needed to achieve specific outcomes. The actual abilities, although necessary, are not sufficient precondition to perform certain action or to execute a specific task. For a successful functioning, it is necessary to have a belief that the existing abilities can be used effectively. It is important to distinguish the real abilities of a person from what he/she believed and thought about his/her abilities and possibilities. Thus, *perceived* self-efficacy includes beliefs about one's ability or competence to bring about intended results. Many capable people do not try to actualize themselves because of the belief in their incompetence. In such a case an intervention in terms of raising individual's belief in his/her own abilities could make them more efficient persons.

In Bandura's theory, self-efficacy is considered as the crucial mechanism of behavioral change. It produces cognitive event that initiate behavior intended to achieve certain goal. On the other hand, this cognitive event is influenced by experience of mastery arising from previous effective performance. Also,

the sources of self-efficacy beliefs are vicarious experiences, verbal persuasion and emotional states. It should be kept in mind that there is an interaction between personal (cognitive) factors, individual's behavior and environmental conditions (Bandura, 1997). Perceived self-efficacy can be seen as a mediator of a cognitive activity. Individual's beliefs in his own efficacy determine how environmental conditions will be perceived and evaluated. Depending on this perception, certain activities and amount of effort will be initiated. Bandura proved that people tend to avoid activities that exceed their capabilities, while they undertake actions that they believe are consistent with their own capabilities. What is more, people with a strong sense of self-efficacy attribute their failure to an insufficient investment of effort and are more inclined to invest even greater efforts in overcoming difficulties. They are manifesting a higher cognitive ingeniousness, flexible strategy and efficiency in handling the external environment. People who have a doubt in their own effectiveness in confronting difficulties reduce the invested effort and give up easily. They visualize a failure scenario that influences the behaviour leading to poor outcomes.

Self-efficacy may be understood as generalized construct. Some authors consider it to be a multifaceted concept including a differentiated set of self-beliefs linked to variety of personal functioning domains. Although self-efficacy is differentiated, specific efficacy beliefs may co-vary because successful performance in different domains is partly managed by higher-order self-regulatory skills.

2. Research problem and objectives of the study

Having in mind the core characteristics of self-efficacy, it could be expected that some stable characteristics of the personality are related to it, and previous findings suggested their inter-relatedness. Our intention was to apply the seven-factor model of personality developed in Serbia, as well as to examine the role of locus of control that has a profound influence on people's behavior.

The research problem was to determine whether certain domains of students' self-efficacy can be predicted based on their personality traits and locus of control. The main research objectives were to determine: a) whether certain personality traits were statistically significant predictors of social, academic and emotional aspects of students' self-efficacy, b) whether the locus of control (internal - external) was statistically significant predictor of social, academic and emotional aspects of students' self-efficacy, c) what students' characteristics were found to be the best predictors of certain domains of their self-efficacy.

3. Method

3.1. Participants
The sample consisted of 200 four-grade high school students, aged 18-19 years, attended grammar school (N=100) and vocational public schools (techical and medicine, 50+50 respectively), in Vranje, Serbia. The sample was balanced regarding gender (50% females). Participants live primarily with both parents in complete families, their place of residence is mainly town (77.5%).

3.2. Variables and Instruments
Personality traits are considered to be time-stable inner dispositions of a person that are able to initiate and direct person's thinking, emotions and behavior. This study relies on the Big Five plus Two model (Smederevac, Mitrović i Čolović, 2010), based on the psycho-lexical paradigm and developed in Serbia. Authors considered that personality can be described by seven general broad dispositions; five of them are similar to the widely known Five-factor model (Digman, 1990:Smederevac et al., 2010), and the other two represent evaluative dimensions. *Neuroticism* (N) refers to the negative affect, such as sadness, depression and anxiety. *Extraversion* (E) refers to sociability and cordiality and to positive affects too. *Openness to experience* (O) refers to intellectual curiosity, open-mindedness and novelty seeking. *Aggressiveness* (A) indicates person's feelings of anger, "difficult character", obstinacy and uncompromising attitude. *Conscientiousness* (C) refers to person's tendency to be self-disciplined, persistent, with strong sense of responsibility to commitments. *Positive valence* (PV) refers to positive self-evaluation, feeling of superiority and narcissistic tendencies. *Negative valence* (NV) indicates a person's negative self-image and also the inclination to manipulate others. Smederevac et al. (2010) developed two versions of five-point Likert-type questionnaire to assess these traits; VP+2, short version, consisted of 70 items, was used. Cronbach's Alpha coefficients ranged from .79 to .88 for the scales.

Locus of control is a construct that refers to the extent to which people believe they can control the events in their lives, and what factors they attribute to the success or failure of any significant activity. Kirkpatrick et al. (2008) define it as a dimensional construct representing the degree to which individuals perceive reinforcing events in their lives to be the result of their own actions or fate, destiny and outer circumstances. *The LOC scale* (Bezinović, 1988) was used to assess the degree of externalization in the attribution of control. Externality means that one sees its own behavior as it is influenced by events that are completely beyond its control, such as luck, coincidence, fate and authority. The scale consists of 10

items, using five-point Likert-type format to show agreement with statements (1=completely incorrect; 5=completely true). The score varies from 10 to 50, and results higher then 30 indicate external locus of control. The reliability was good (α = .83).

Self-efficacy refers to person's belief that he can successfully carry out the actions needed to achieve certain goals, according to Bandura's social-cognitive theory (1977; 1997). It was understood as a multifaceted concept including a differentiated set of self-beliefs linked to variety of personal functioning domains. *The Self-efficacy Questionnaire* (SEQ-C, Muris, 2001) was used to assess three aspect of self-efficacy: a) social - the belief that person is able to relate with peers in an assertive manner (*I can easily make friends with others*); b) academic - the person's belief about competence to learn and meet the expectations of the school, (*It's easy for me to concentrate on learning in spite of distractions around*); c) emotional - the belief that the person is able to cope with his emotional states (*I cannot encourage myself when I feel sad*). The SEQ is composed of 24 items, in 5-points Likert format (9, 8 and 7 items for the subscales). Alpha Cronbach coefficients were .74, .80, .67 respectively and .81 for total score.

3.3. Procedure and data analysis

The survey was conducted in several public high schools, situated in Vranje, Serbia. The questionnaires were administered in groups during regular school classes, in May 2016. Testing was anonymous and it took about 40 minutes. Students were informed about the research purposes and their participation was voluntary.

SPSS, version 20, was used to perform necessary statistical analysis. In order to gain research objectives, data were processed by multiple regression analysis procedures, firstly including personality traits and, secondly, adding locus of control as predictors of self-efficacy taken as criteria.

4. Results and discussion

Descriptive statistics showed that distribution of personality traits in the research sample was in accordanace with expected values for average population (Smederevac et al., 2010). Results showed that students are somewhere in the middle between the outer and inner locus of control, with a little inclination to the externality in explaining the sources of their behavior, which is a position that can be understood in people of that age, but also in the population. When it comes to the self-efficacy, high school students estimated their competence moderately high in all domains of functioning (mean scores, on a five-point scale, were 3.96 social, 3.59 emotional, 3.40 emotional).

4.1. Predictors of the social self-efficacy in the high school students sample

Two regression analysis were done and models proved to be statistically significant. In both cases, extraversion was shown as the best predictor of social self-efficacy (β = .550, p <.000, β = .562, p <.000) and locus of control was also statistically significant predictor (β = -.188, p <.004), what can be seen on Table 1. The first regression model has shown that 30.5% of the variance in the student's social self-efficacy can be predicted based on their personality traits, more precisely, only on the basis of their extraversion (R = .55, R^2 = .305, p = .000). The second regression model, in comparison to the first one, can explain only a small proportion of variance more in students social self-efficacy (R = .58, R^2 = .334, p = .000). Extroverts tend to be sociable, active and talkative, they prefer group activities, can be assertive in communication with others, so that relationship can be easily grasped.

Table 1. Personality traits and locus of control as predictors of students' social self-efficacy.

Predictors	β standard. coeff.	Sig.	Statistics of model
Extraversion	**.562**	**.000**	
Neuroticism	-.016	.823	**R = .578**
Openness to experience	-.094	.232	**R^2 = .334**
Aggressiveness	.048	.501	
Conscientiousness	.065	.373	p = .000
Positive valence	-.065	.458	N = 200
Negative valence	.065	.391	
Locus of control	**-.188**	**.004**	

4.2. Predictors of the academic self-efficacy in the high school students sample

The first regression model, included personality traits, proved to be statistically sisgnificant (R=.510, R^2=.262, p<.000). Conscientiousness, openness and negative valence contributed to the prediction of students' academic self-efficacy (β was .25, .21 and -.24, p<.000). Positive correlation between conscientiousness and openness to experience, at the one hand, and school achievement and academic self-efficacy, at the other hand, can easily be explained. It's also known that negative self-evaluation and lack of self-confidence may have negative effects on school performance. These

findings were in accordance with empirical evidence in the field in Serbian samples (Djigić, Stojiljković & Marković, 2016; Gigić et al., 2016; Zlatković, 2007).

In the second regression model (table 2), conscientiousness (β = .283, p <.000), negative valence (β = -.188, p <.016) and locus of control (β = -.246, p <.000) proved as predictors of student's academic self-efficacy while openness remained no longer, what is a little bit surprisingly. Proportion of the explained variance of academic self-efficacy was slightly higher (R=.559, R^2=.312, p<.000). Knowing that high score on LOC scale pointed to the person's tendency to externalization, negative partial correlation showed that internal locus of control contributed to better academic performance. That is in line with previous findings, summarized in the following: internal attributions are associated with higher academic self-efficacy, and thus the greater achievements. On the other hand, externally oriented consider their outcomes beyond their control and attribute them to the external circumstances; so they blame others rather than themselves for any negative outcome (Kirkpatrick et al, 2006; Onyekuru, & Ibegbunam, 2014; Poropat, 2009; Šabanović et al., 2016; Šarčević, & Vasić, 2014; Zlatković, 2007).

Table 2. Personality traits and locus of control as predictors of students' academic self-efficacy.

Predictors	β standard. coeff.	Sig.	Statistics of model
Extraversion	-.064	.373	
Neuroticism	-.037	.613	**R = .559**
Openness to experience	.147	.068	**R^2 = .312**
Aggressiveness	.121	.096	p = .000
Conscientiousness	**.283**	**.000**	N = 200
Positive valence	.061	.497	
Negative valence	**-.188**	**.016**	
Locus of control	**-.246**	**.000**	

4.3. Predictors of the emotional self-efficacy in the high school students sample

When it comes to the emotional self-efficacy of students, both regression models showed the same. This domain of self-efficacy could be explained by two of seven personality traits, positive valence (β = .321, p <.001) and aggressiveness (β = -.199, p <.013) while locus of control wasn't found to be its significant predictor. In addition, proportion of the explained variance of emotional domain of efficacy was lower than predictive power of regression models concerning social and academic self-efficacy of students (R=.420, R^2=.176, p<.000) (table 3). Positive self-evaluation and low aggressiveness can contribute to the person's competence to govern his/her emotions and specially to manage with negative emotions and states such as sadness, anger, feeling of inferiority and so on.

Table 3. Personality traits and locus of control as predictors of students' emotional self-efficacy.

Predictors	β standard. coeff.	Sig.	Statistics of model
Extraversion	.072	.359	
Neuroticism	-.048	.550	**R = .420**
Openness to experience	.046	.600	**R^2 = .176**
Aggressiveness	**-.199**	**.013**	p = .000
Conscientiousness	-.030	.714	N = 200
Positive valence	**.321**	**.001**	
Negative valence	.142	.094	
Locus of control	-.036	.619	

5. Conclusions

This study was aimed to investigate the relationship between personality traits, locus of control and student's self-efficacy and obtained results suggested a few conclusions. These constructs were inter-connected but the intensity and direction of correlation varied; this was no true for all of particular variables. Of the seven traits of personality, only neuroticism had not proved to be a significant correlate of self-efficacy, which was a little bit surprisingly. Previous studies found that high neuroticism had negative influence on one's academic performance and often is a source of emotional instability. Extraversion was proved to be the best predictor of social self-efficacy, and conscientiousness and openness to experience were the best correlates of academic self-efficacy; that is in line with previous findings (Poropat, 2009). Both self-evaluative dimensions were shown as predictors of perceived self-efficacy in students: positive self-concept was the best predictor of emotional self-efficacy while negative valence and self-image can interfere with their functionality in the academic context (Zlatković, 2007).

Locus of control proved to be important predictor of both academic and social domain of self-efficacy in student's sample: internal locus of control can contribute to their better functioning (what is in line with previous findings). At the other hand, externality did not correlate with emotional

self-efficacy, i.e. with the person's ability to govern his/her negative feelings and intensive emotional states. Students who have internal attribution and positive expectations will invest more efforts and achieve better results. On the other hand, those who attribute success to external factors will be more prone to express intensive anxiety and avoid task, and therefore will have lower achievement.

Students' social and academic self-efficacy could be predicted by personality characteristics much better than it could emotional efficacy of students. Perhaps this can be attributed to their young age and the difficulties they encountered when building their own personal identity.

The main finding of this research is the fact that self-efficacy can be good enough predicted based on the personality trait as a stable dispositional characteristic of a person. The inclusion of the locus of control, seen as a way of explaining the source of one's own behavior, contributed slightly this prediction of self-efficacy. There are still many factors that may be important in that way, such as, motivation for achievement, personal aspirations, coping strategies, family context, etc. Taking self-efficacy as the crucial mechanism of behavioral change, additional research in this field is needed, especially because of its practical implications on personal, professional and everyday life.

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THE FACTORS ASSOCIATED WITH THE CHANGE IN SMOKING STATUS AMONG SLOVAK SCHOOLCHILDREN

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Abstract

Background: The aim of this study was to explore the incidence of risk factors associated with the change of the current smoking status from non-smoker to smoker among Slovak schoolchildren. A further aim was to test the effect of the European school-based social influence intervention program "Unplugged" on the change in smoking status among schoolchildren using a follow-up testing. Method: In the school year 2013/2014, the program Unplugged was implemented in Slovak primary schools. The study was carried out as a cluster randomized controlled trial with data collection conducted immediately before the program implementation (T1), immediately after the program implementation (T2) and then at three months (T3), at 12 months (T4), and at 18 months after the program implementation (T5). The program involved 1295 participating schoolchildren (M=11.52; 46.8% boys). The schools were randomly assigned to experimental (n=641) and control groups (n=654). The experimental group was exposed to the program Unplugged which consisted of 12 lessons. The effect of participating in the Unplugged program, gender, availability of cigarettes (AC), normative beliefs (NB), parental knowledge regarding children's behaviour, self-regulation and novelty seeking on the change in smoking status (from non-smoker to becoming a smoker) among schoolchildren was explored at the follow-ups. The schoolchildren who reported smoking on at least one occasion during the past 30 days were identified as smokers at every follow-up. Logistic regression models were used for the data analyses. Results: At the baseline (T1) 2.4% of pupils were reported to be smokers. When all waves were considered (T1-T5) 90.4% of respondents remained as non-smokers, 7.8% became smokers, 1.1% stopped smoking and 0.8% were smokers throughout. The most powerful predictors of change in smoking status were a higher level of NB and AC when both shorter (T3-T4, T4-T5) or longer (T3-T5, T1-T5) periods were explored. The effect of the Unplugged intervention on the change in pupils' smoking status was not found. Conclusion: The repeated assessment of pupils' smoking showed that NB and the AC contributed to the change in smoking status between all of the explored periods.

Keywords: Smoking, normative beliefs, availability of cigarettes, unplugged.

1. Introduction

A study analyzing the effectiveness of substance use prevention programs in terms of the curriculum content, implemented approach and mediation mechanism shows that the programs have mostly implemented information giving approach, social influence approach and skills enhancement approach (Berinšterová, Orosová, 2014). One of the current prevention programs the Unplugged is a school-based social influence intervention program which has been widely implemented in Europe with positive evaluations of its effectiveness (Miovsky, Novak, Stastna et al., 2012). This study aims to use a follow- up testing to explore the effectiveness of the Slovak adaptation of the Unplugged intervention program focusing mainly on the change in smoking status among Slovak schoolchildren.

In our previous study (Orosova, Berinsterova, Bacikova-Sleskova et al., 2015) we focused on the investigation of the incidence of risk factors associated with an increase in the number of smokers among Slovak schoolchildren. We found that smoking was more common among boys, particularly among those with a higher level of normative beliefs, with a higher availability of cigarettes, and among those with a lower level of parental knowledge at the pre-test. Interestingly, normative beliefs were found to be the single variable which explained an increase in the number of smokers at the post-test (three months after the Unplugged has been implemented). This means that repeated measurements have demonstrated a

significant increase in the number of smokers during a short period of time and emphasized the crucial role normative beliefs in schoolchildren' s smoking status (Orosova, Berinsterova, Bacikova-Sleskova et al., 2015). Surprisingly, other explored variables such as risk perception concerning smoking, mother/father smoking or perceived parental approval were not found to be related to an increase in the number of smokers among Slovak schoolchildren (Orosova, Berinsterova, Bacikova-Sleskova et al., 2015).

Normative beliefs represent a central construct in a number of theories of social psychology (Thrul, Lipperman-Kreda, Grube et al., 2014). Descriptive and injunctive norms contribute to the understanding and the prediction of smoking (Mead, Rimal, Ferrence et al., 2014). This study focused on descriptive norms which can be defined in terms of the prevalence of a particular behavior, the perceptions of the extent to which significant others engage in this behaviour and the perception of adult or peer smoking prevalence (Lochbuehler, Schuck, Otten et al., 2016, Thrul, Lipperman-Kreda, Grube et al., 2014, Mead, Rimal, Ferrence et al., 2014). The correction of the misperception of the extent to which significant others engage in a risky behavior is an important protective component of any prevention program based on social norms (Chung, Rimal, 2016). It has been found that a community-based approach may contribute to better understanding of tobacco smoking behavior among adolescents (De Vries, 1995), as well as that a correction of normative beliefs may be beneficial, especially among schoolchildren who have not yet initiated tobacco smoking prior to the prevention program implementation (Bavarian, Duncan, Lewis et al., 2015). The investigation of descriptive normative beliefs as a predictor of the change of the current smoking status from a non-smoker to a smoker during shorter as well as longer periods was one of the main aims of this study.

It is well-known that smoking among schoolchildren is associated with various factors and the availability of cigarettes is one of the most important environmental factors (Khodayari, Abadi, Asghari Jafarabadi, 2018). Previous studies have further provided evidence for the importance of house rules, specific psychosocial familial determinants, parental control, parental monitoring/supervision as protective factors against smoking onset among schoolchildren (Wellman, Dugas, Dutczak et al., 2016, Zaborskis, Sirvyte, 2015, Hiemstra, Ringlever, Otten et al., 2014).

Furthermore, associations between self-control, social self-control as well as novelty seeking and a higher likelihood of initiation smoking has been reported in previous studies (Stautz, Zupan, Field et al., 2017, Sussman, Chou, Pang et al., 2016, Pokhrel, Sussman, Stacy, 2014).

A further aim of this study was the investigation of the predictors of the change in smoking status among Slovak schoolchildren using a short-term and long-term follow-up testing.

2. Objectives

The aim of this study was to explore the incidence of risk factors associated with the change of the current smoking status from non-smoker to smoker among Slovak schoolchildren. A further aim was to test the effect of the European school-based social influence based intervention program "Unplugged" on the change in smoking status among schoolchildren using a follow-up testing.

3. Methods

3.1. Sample and study design

The study was carried out as a cluster randomized controlled trial with data collection conducted immediately before the program implementation (T1), immediately after the program implementation (T2) and then at three months (T3), at 12 months (T4), and at 18 months after the program implementation (T5). The program involved 1295 participating schoolchildren (M=11.52; 46.8% boys). The sampling used a list of primary schools in Slovakia in 2011 retrieved from the Institute of Information and Prognosis of Education (total 2,202 schools). Sixty elementary schools participated in the study, 30 schools were allocated in the experimental group (n=641) and 30 served as the control group (n=654). In each school, a single class of six graders was involved in this research. Randomization was done by using a web application created for the purpose of this research. Schools were selected from different cities based their geographical location in the Eastern, Central and Western Slovakia with 6 clusters based on the population size. Official criteria defining towns and villages were used according to the Statistical Office of the Slovak Republic. The experimental group was exposed to the program Unplugged. The school-based prevention program *Unplugged* targets students 12–14 years of age and aims to address both experimental and regular use of alcohol as well as the use of tobacco and illicit drugs. This program consists of 12 lessons, which were carried out once per week during the school year 2013/2014 (September – December) in this study. The Programme was delivered via lectures by teachers or psychologists who underwent a 3-day training course during which they trained for the programme implementation in each lesson.

3.2. Method

The measures included in the present study were:

Tobacco cigarettes smoking. The schoolchildren who reported smoking on at least one occasion during the past 30 days were identified as smokers at every follow-up.

Availability of cigarettes was measured by the question "How difficult do you think it would be for you to get cigarettes if you wanted?" Item was assessed on 6-point scale and for the data analyses this was recorded from 1 – Very easy to 5 – Impossible (the answer "Don't know was excluded from analyses in the present study).

Descriptive normative beliefs, the perceived norm for peer cigarette smoking was measured by the question „According to your estimation, how many of your friends smoke tobacco cigarettes?" This item was assessed on 5 point scale from 1 – Nobody to 5 – Everybody.

Parental knowledge regarding children's behaviour was measured by the question "Do your parents know where you spend Saturday nights". Item was assessed on 4-point scale from 1-Know always to 4 – Usually don't know.

To assess self-control, a Slovak translation of the short version of the original Self-control scale developed by Tangney et al. (2004) was employed (Finkenauer, Engels, Baumeister, 2005). The short version consisted of 11 items (Cronbach alpha=0.73). "*I am lazy, I have a hard time breaking bad habits, I wish I had more self-discipline*" is an example of items of Self-control scale. Response categories ranged from 1-Not at all to 5-Very much.

A Slovak translation of the Novelty seeking factor of The Adolescent Resilience Scale was employed (Oshio, Kaneko, Nagamine et al., 2003). The Novelty seeking factor consisted of 7 items (Cronbach alpha= 0.70).

„*I seek new challenges*" is one example of items of The Novelty seeking factor. Respondents were asked to choose a rating scale using anchors of 5-Definitely yes and 1-Definitely no.

3.3. Statistical analyses

Logistic regression models were used for the data analyses.

4. Results

At the baseline (T1) 2.4% of pupils were reported to be smokers. When all waves were considered (T1-T5) 90.4% of respondents remained as non-smokers, 7.8% became smokers, 1.1% stopped smoking and 0.8% were smokers throughout. The most powerful predictors of change in smoking status (from being a non-smoker to becoming a smoker) were a higher level of normative beliefs and the availability of cigarettes when both shorter (T3-T4, T4-T5) or longer (T3-T5, T1-T5) periods were explored (Table 1). Furthermore, a lower level of parental knowledge at T3 and T5 was significant when the change in smoking between T1 and T3, as well as between T4 and T5 were taken into account and a lower level of self-control at T5 was a significant predictor when the change in smoking between T3 and T5 was considered (Table 1). The effect of the Unplugged intervention on the change in pupils' smoking status was not found (Table 1).

Table 1. The predictors of chan*ge in smoking status* among Slovak *schoolchildren*.

	Sig.	Exp(B)	95% C.I.for EXP(B)	
T1			Lower	Upper
Unplugged	0.558	0.541	0.070	4.213
Gender	0.607	1.557	0.288	8.423
Availability T1	**0.003**	2.405	1.346	4.298
Normative beliefs T1	**0.003**	3.293	1.494	7.259
Parental knowledge T1	0.455	1.351	0.613	2.978
Self-control T1	0.230	1.075	0.955	1.210
Novelty seeking T1	**0.029**	0.736	0.559	0.970
R ^{2}	0.47			
	Sig.	Exp(B)	95% C.I.for EXP(B)	
T1-T3			Lower	Upper
Unplugged	0.721	1.23	0.394	3.838
Gender	0.051	0.257	0.065	1.006
Availability T3	0.074	1.443	0.965	2.156
Normative beliefs T3	0.180	1.465	0.838	2.561
Parental knowledge T3	**0.001**	2.416	1.413	4.13
Self-control T3	0.934	0.997	0.921	1.078
Novelty seeking T3	0.237	1.093	0.943	1.266
R ^{2}	0.30			

	Sig.	Exp(B)	95% C.I.for EXP(B)	
T3-T4			Lower	Upper
Unplugged	0.158	1.837	0.790	4.275
Gender	0.453	0.726	0.314	1.675
Availability T4	**<0.001**	1.931	1.355	2.750
Normative beliefs T4	**<0.001**	2.197	1.450	3.327
Parental knowledge T4	0.132	1.337	0.916	1.950
Self-control T3	0.628	1.016	0.952	1.084
Novelty seeking T4	0.950	1.004	0.888	1.134
R^2	0.36			
	Sig.	Exp(B)	95% C.I.for EXP(B)	
T3-T5			Lower	Upper
Unplugged	0.396	1.596	0.542	4.700
Gender	0.456	0.648	0.207	2.029
Availability T5	**0.011**	2.279	1.212	4.285
Normative beliefs T5	**<0.001**	2.871	1.611	5.115
Parental knowledge T5	0.128	1.449	0.899	2.334
Self-control T3	**0.040**	0.902	0.817	0.995
Novelty seeking T5	0.175	0.888	0.748	1.054
R^2	0.51			
	Sig.	Exp(B)	95% C.I.for EXP(B)	
T4-T5			Lower	Upper
Unplugged	0.585	1.494	0.354	6.312
Gender	0.561	1.56	0.348	6.998
Availability T5	**0.049**	2.998	1.007	8.928
Normative beliefs T5	**0.014**	2.417	1.197	4.877
Parental knowledge T5	**0.049**	1.899	1.002	3.598
Self-control T5	0.579	0.966	0.856	1.091
Novelty seeking T5	0.198	0.832	0.628	1.101
R^2	0.54			
	Sig.	Exp(B)	95% C.I.for EXP(B)	
T1-T5			Lower	Upper
Unplugged	0.405	1.594	0.532	4.770
Gender	0.469	0.665	0.220	2.007
Availability T5	**0.006**	2.866	1.344	6.112
Normative beliefs T5	**<0.001**	2.739	1.565	4.792
Parental knowledge T5	0.068	1.549	0.968	2.478
Self-control T5	0.063	0.911	0.826	1.005
Novelty seeking T5	0.135	0.868	0.721	1.045
R^2	0.53			

Notes: before the program implementation (T1), at 3 months after the program implementation (T3), at 12 months after the program implementation (T4), at 18 months after the program implementation (T5)

5. Discussion and conclusions

The results of this study are consistent with previous findings which suggest that the smoking of others more than other characteristics of environment has a significant effect on individuals' formation of norms and consequently manifests as behavior (Mead, Rimal, Ferrence et al., 2014). The impact of media, observational modelling and norm formation can improve the understanding of smoking behavior (Mead, Rimal, Ferrence et al., 2014). This study has found that the most powerful predictors of the change in smoking status is a higher level of normative beliefs and the availability of cigarettes when both shorter or longer periods were explored. However, the effect of the Unplugged intervention focusing on the development of interpersonal and intrapersonal skills and correction of false normative beliefs and attitudes (Thomas & Perera, 2006 in Miovsky, Novak, Stastna et al., 2012, 213) on the change in Slovak pupils' smoking status was not found. These findings generally support the results of the previous study (Orosova, Berinsterova, Bacikova-Sleskova et al., 2015) which did not confirm the short-term effect of the Unplugged program on Slovak schoolchildren' s smoking. Teachers' perception of the importance of the Unplugged intervention as well as the implementation fidelity (Jurystova, Orosova, Gabrhelik, 2017, Wang, Deveaux, Knowles et al., 2015) may constitute a limitation of this investigation which should be considered. In order to improve this, it is important that the Unplugged is implemented with appropriate fidelity measures (Jurystova, Orosova, Gabrhelik, 2017) which may also improve the understanding of health related behaviour among schoolchildren (Middlestadt, Macy, Geshnizjani, 2014).

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SPECIAL AND GENERAL EDUCATORS' BELIEFS ABOUT THE SEXUALITY OF INDIVIDUALS WITH INTELLECTUAL DISABILITIES

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Abstract

The present study focuses on the special and general educators' attitudes and beliefs towards the sexuality of individuals with intellectual disabilities (ID). Individuals with ID comprise a vulnerable population at risk for victimization, pregnancy and sexually transmitted infections. Many misconceptions occur regarding their rights for sexual education. These misperceptions have led to numerous barriers them from acquiring adequate sexuality education and social acceptance as sexual beings. Semi-structured interviews were conducted with 10 special and 10 general education teachers in mainstream school settings. The interviews were used as the basic instrument to collect the data, which comprised the following sections: a) conceptualization of sexual behavior of individuals with ID, b) the present status and the role of parents and administrators and c) suggestions about sexual education. The interviews were conducted individually, and were tape recorded, transcribed and analysed through a qualitative thematic analysis (Miles & Huberman, 1994). The data were analyzed through two basic phases: a) first and second level coding as well as pattern coding. Codes resulted in groups of sub-categories, 'labeled' by a specific name, which were grouped into major categories. Then, similar concepts with common characteristics were clustered into basic 'themes'. b) data display. The data were displayed on individual tables and in crosschecking formats including the categories and codes of the 20 interviewees. Results indicated that special educators hold a more positive view towards providing sexuality education than general educators. Although special educators viewed sexuality as a basic human right, yet both general and special educators expressed concerns regarding capacity to consent to sexual education. Despite the subtle diffrences between the two groups, despite the more inclusive overall societal attitude towards accepting the sexuality of individuals with ID, educators continue to hold conservative viewpoints and do not understand this population's needs. Contributory factors to conservative viewpoints include a lack of training and competence to deliver sexuality education programs coupled with a perceived lack of administrative and parental support. Further research in the educational settings serving individuals with ID, including a larger sample of teachers and other stakeholders, such as school counsellors and policy makers, as well as using quantitative instruments in order to have a more complete picture of the situation.

Keywords: Intellectual disabilities, beliefs, educators, sexual education, qualitative method.

THE INTELLECTUAL FUNCTIONING OF ART MUSEUMS VISITORS: IDENTIFYING COMPONENTS OF A TRANSFORMATIVE AESTHETIC EXPERIENCE[1]

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Abstract

Our research program is to access and understand the intellectual functioning of an individual exploring contemporary art in a museum context. Our initial results will be presented in relation to Pelowski and Akiba's (2011) psychological model of art experience. We will identify the components of a transformative aesthetic experience in the context of a museum visit. In order to access a visitor's aesthetic experience, the Thinking Aloud protocol (Dufresne-Tassé et al., 1998) was used to collect adult visitors' talk during their exploration of artworks at the Montreal Museum of Fine Arts. This method consists of recording what an individual visitor says, during his/her visit, that is, thoughts, ideas, reflections that might emerge during the exploration of artworks. The verbal comments of 60 visitors, aged 18 to 75 years old that possess different levels of education and frequent museum more than 3 times per year were selected. While visiting and commenting, all of the participants' talk was recorded. To enable the study of a visitor's intellectual functioning, the recorded comments were transcribed and analyzed using different instruments created in previous research projects (Émond, 2017) in order to identify moments of consonances ("I like this") and dissonances ("This is not art") and different mental operations (for example: identifying, comparing, suggesting) used by visitors. Results indicate the importance for visitors to experience not only consonances but also dissonances that lead to moments of self-awareness that shifts into a transformative aesthetic experience.

Keywords: Adult visitors, intellectual functioning, art museum, contemporary art, aesthetic experience.

1. Rationale of the research

An artwork is often considered by definition an aesthetic object, and its status is reinforced in a museum setting. The objects in an art museum have the attribute of being aesthetic, an attribute conferred by the art world (Davies, 1990). Adult visitors who view historical art in a museum often appears in harmony with what they see (Weltzl-Fairchild & Émond, 2000). The works they view resonate with their expectations. Portraits, landscapes, or genre paintings seem to provide opportunities for enjoyment. There is a sense that visitors can respond to a variety of historical art because they can readily recognize the type of representation and affirm without a doubt that they are looking at a portrait rather than a landscape painting. It is easy for them to draw a line between religious art and secular art or painting and sculpture. Being able to identify clearly what one is looking at seems to be an advantage of historical art that is not necessarily present in the case of contemporary art.

Contemporary art (1960 - to the present time), with its roots in modern art and its ensuing breaks with the past, continually modifies its relation to the legacy of historical art. The speed with which contemporary art evolves makes its historical framework incoherent, for some, and illegible for others. Also, much of the literature surrounding visual arts (art history, Aboudrar, 2000; sociology, Heinich, 1998; philosophy, Rochlitz, 1994) stresses that visitors have greater difficulty in responding to and understanding contemporary art. Aboudrar (2000) explains that historical art embodies the expectations of museum visitors, while contemporary art is often viewed as one that challenges their expectations.

As described by Schueller (2000), the expectations of visitors can be challenged during an art museum visit. How these expectations are met or challenged can have direct consequences on their reactions towards the artwork being viewed, be they negative (conflict) or positive (harmony). Generally,

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when describing a visitor's reaction to art, we do not talk in terms of conflict or harmony but adopt the expression *aesthetic experience*. Much research has been conducted to describe aesthetic experience, for example, the research undertaken by Csikszentmihalyi and Robinson (1990) and Housen (1983). Traditionally, we view aesthetic experience as one that touches on qualities of the sublime. In this study, we focus our attention on the quality of the visitor's aesthetic experience as a transformative one. We are interested in what actually happens to visitors during an encounter with contemporary art. We want to understand their art appreciation practices: what are their thoughts, how they deal with moments of harmony or conflict. By visitors' aesthetic responses, we refer to all the verbal comments made by visitors during their museum visit which gives us access to the different mental operations they might use to make sense of the artworks such as identifying, judging and predicting.

The purpose of the study is to identify the components of a transformative aesthetic experience in the context of a museum visit. How can a visitor, who experiences moments of conflict (dissonance) or of harmony (consonance), while viewing contemporary art in a museum, attain a transformative aesthetic experience?

2. The choice of participants

Our 60 participants were frequent museum visitors, that is, they visited museums more than three times per year. They were all members of the Montreal Museum of Fine Arts where the research was conducted. Aged 18 to 75 years old they possessed different levels of education ranging from less than twelve years of education to post-secondary education. It was important, in the context of our research, to have participants that were familiar with museums and felt at ease exploring works of art in order to maximize the potential of identifying the components of a transformative aesthetic experience.

3. Procedure for collecting data

The information necessary to identify the components of a transformative aesthetic experience was collected with a method labelled *Thinking Aloud*. This means that after entering the museum, and a short exchange of words, each one of the 60 visitors was asked to say aloud everything that came to his mind, being thoughts, emotions, memories, and this, without bothering remembering or explaining it. This technique widely used by Ericsson and Simon (1993) for investigating problem solving was adapted to the museum situation and validated by Dufresne-Tassé (Dufresne-Tassé, C., Sauvé, M., Weltzl-Fairchild, A., Banna, N., Lepage, Y. & Dassa, C., 1998). This latter adaptation supposes that each visitor is accompanied by the researcher who plays the role of a *Friendly Stranger* (Émond, 2005) who follows the visitor, shows sympathy to what he is saying, but without interacting with him. All of our visitors' art appreciation verbalizations were transcribed and these consisted of what we call a 'discourse'. This discourse was then used to analyse visitors' aesthetic experience.

4. Treatment of data

Through visitors' discourses, analyses were made using instruments created in previous research. One consisted of a typology of consonances and dissonances so that we could identify moments of harmony and of conflict present in the visitors' discourses and, another, regrouped eight mental operations used by visitors between consonant or dissonant moments (see Émond, 2017 for details). Once the discourses were coded, we were able to put visitors' consonant and dissonant moments and the different mental operations used, in relation to Pelowski and Akiba's (2011) psychological model of art experience. This model presents five different stages of the aesthetic experience: *Pre-expectations and self-image; Cognitive mastery and introduction of discrepancy; Secondary control and escape; Meta-cognitive re-assessment; Aesthetic outcome and new mastery*, with a total of three possible *Outcomes* to the aesthetic experience.

5. Results and discussion

5.1. Stage 1: pre-expectations and self-image

As previously mentioned by researchers (Leder, Belke, Oeberst & Augustin, 2004) the museum context places the participants in an environment considered 'of authority' concerning defining what is art or not. So, the first element to consider, is the context where the research was conducted and the selection of our participants, since both of these components influence our results.

We have to remember that our visitors were familiar with the museum context and knew what to expect but also why they liked to visit museums regularly. They had expectations. They also knew, as frequent museum visitors, even before arriving to the museum, what they liked in works of art. That is to say, that even before arriving at the museum visitors possess their personal pre-classification concerning artworks, having a set of postulates that guide their behavior and expectations in the museum context. We are referring to visitors' self-image, one's mental picture. Moreover, visitors' self-image is generally resistant to change, and visitors will be confronted with the museum's collection that might or not correspond to their definition of art and could constitute a threat to an existing self-image if a discrepancy should arise while viewing the artwork (Pelowski & Akiba, 2011). When questioned after the experience in the galleries, our participants were able to clearly explain the importance of their pre-expectations in relation with the quality of their museum experience, in essence when there is a match between visitors' pre-expectations and artworks being viewed.

5.2. Stage 2: cognitive mastery and introduction of discrepancy

In contact with a work of art in a museum context, the adult visitor makes a first identification or classification according to his pre-expectations and his self-image, a stage that Leder et al. (2004) named *cognitive mastery*. At this stage, the visitor identifies what he perceives as a work of art, one that may or may not correspond to his pre-expectations and depending on the fit, the self-image might be affected. If there is a match, the visitor will love the work of art and feel comfortable with the encounter. The evaluation being positive is often manifested by an "Ah! I like that! Oh! It's beautiful!" The visitor being in consonance is manifested in various forms (Émond, 2002, 2017; Weltzl-Fairchild et al., 2000). After the consonant reaction, the visitor simply moves on to the next work of art. It is also possible that at this stage the correspondence with the work of art is so very strongly felt by the visitor that he encounters a flow experience (Csikszentmihalyi, 1990). These two possibilities lead to *Outcome 1 as a positive aesthetic experience* as shown by our participants. For the authors of the model, these two types of aesthetic appreciation are 'easy' because they comfort the visitor in his pre-expectations and self-image (Pelowski & Akiba, 2001).

On the other hand, when the artwork does not correspond to the visitor's pre-expectations or self-image, there is a gap between the work or art, the artist and the museum context. Often, the visitor will find the work ugly, will declare not to like it, will judge that it is not art and go so far as to question the presence of this artwork in the museum. He is in conflict with what he perceives, and so he is in dissonance (Émond, 2006). If the dissonance is very strong and the visitor considers that there is no way to resolve it, the only solution is to physically move away from the artwork and immediately stop his aesthetic appreciation because continuing would pose a threat to his self-image. This represents *Outcome 2 as a negative aesthetic experience*.

If the visitor is convinced that the divergence he perceives can be resolved without damaging the self-image, he will continue his exploration of the work. To do this, he seeks information about the artwork provided by the museum in order to overcome his dissonance. If he finds the information and it is relevant, he continues his aesthetic experience. However, if he does not find the necessary information he remains in dissonance (Émond, 2016a). This type of dissonance is perceived between the work and the label or between the museography and the presentation of the information (Émond, 2017). Unfortunately, the aesthetic appreciation often ends at this stage, as the information provided by the museum does not seem to be sufficient to resolve the dissonance and the visitor physically moves away from the artwork (Émond, 2016a). But it is also likely that the visitor does not feel confident about being able to resolve the discrepancy and thinks that perhaps it is possible to look in a different way, because the museum certainly has a reason to have this artwork in its collection. He thus perceives the museum as a place of authority on 'Art'. Then, without fear of damaging his self-image, he will continue the exploration of the artwork.

5.3. Stage 3: secondary control and escape

When our visitor continues his exploration of the artwork to Stage 3, he finds that the museum has provided relevant information that he accepts. On the other hand, this does not mean that the visitor is in consonance with what he perceives of the artwork, because it can reflect simply a state of neutrality on his part, confident that he is not making a mistake in his appreciation. The work might still not correspond to his pre-conceptions and self-image. So, the visitor tries to understand the work of art using various mental operations such as identifying, judging, comparing, justifying, predicting, concluding and this in respect to his different focus of interest (Émond, 2016b, 2017). Thus, the visitor continues his assessment to Stage 4.

If the visitor's use of mental operations does not lead to "*a confrontation of the self that might result in a true resolution [...of the dissonance] [t]his phase represents what Rothbaum, Weisz and Snyder (1982) call "secondary control" the attempt to covertly change the conditions of the environment*

so that a discrepancy can ultimately be assimilated or ignored" (Pelowski & Akiba, 2011, p. 88-89). In such a situation, the visitor can continue his appreciation despite the state of dissonance. In this situation, he always tries to re-classify the work of art in relation to his pre-expectations and his self-image. Usually, the dissonances experienced are related to what a visitor perceives between the artwork and the artist's craftsmanship (Émond, 2017). If dissonances persist, if it is impossible for the visitor to re-classify the artwork so that it corresponds more to his self-image, the visitor will simply qualify the work of art as irrelevant. He believes that the artist was simply in the wrong in his execution and then escapes, by physically leaving the artwork, and ending his appreciation. This can happen without the visitor feeling too frustrated, because he does not bear the blame for the failure of the aesthetic experience considering that it was the work of art that was of poor quality. We have here another representation of *Outcome 2, considered nonetheless a negative aesthetic experience.*

On the other hand, it is also possible that the visitor does not physically leave the artwork and continues its appreciation despite the divergence and still tries to re-classify the artwork. If re-classification is really not possible, the visitor physically leaves the situation in order not to damage his self-image as in self-protection. In these circumstances, the visitor will say for example "This is only art" and this, to minimize the situation (Émond, 2002). This is called *cognitive withdrawal* (Rothbaum et al., 1982 as cited by Pelowski & Akiba, 2011).

5.4. Stage 4: meta-cognitive re-assessment

As mentioned by Pelowski and Akiba (2011), when assimilation and subsequent escape mechanisms fail or are bypassed, the visitor finds himself prisoner in a situation where he has no way of escaping or easily resolving the dissonance, he can decide to enter in "*a period of active experiential and expectational re-assessment*" (p. 89). If the visitor decides to continue with an experiential re-evaluation, "*this event is often accompanied or preceded by acute self-focused attention*", (Steele et al., 1993, as cited by Pelowski & Akiba, 2011, p. 89), which seems to have an impact on dissonant situations (Pelowski & Akiba, 2011). Becoming self-focused, "*leads [the visitor] to the feeling of "increased submissiveness" and "individuation," causes the individual to "focus attention on personal limitations and to increase perceived uncontrollability" (Rothbaum et al., 1982, p. 23), increases negative affect and anxiety (Mor & Winquis, 2002); and induces expectational re-assessment (Ingram, 1990)*" (Pelowski & Akiba, 2011, p. 89). The visitor, then gives up total control and revises his expectations acknowledging the presence of the dissonance or conflict and switches to a meta-cognitive approach in his art appreciation. The visitor who can reach this stage is gearing towards a transformative aesthetic experience. There is therefore a metacognitive re-assessment. If successful, the visitor will modify his self-image and achieve *self-transformation* (Rothbaum et al., 1982, as cited by Pelowski and Akiba, 2011).

But if the visitor needs to solve the dissonance, he is trapped in a psychologically unsustainable situation. He is aware of his limitations and the aesthetic experience ends in anger and frustration. He is convinced that he will never want to relive such an experience (Émond, 2002). We can understand that if a visitor finishes his assessment at Stage 4 in a state of frustration, this could be very damaging as he will not be interested in repeating such an experience in a museum. He might consequently decide to exclude contemporary art from his corpus. This is another representation of an *Outcome 2 considered as a negative aesthetic experience.*

5.5. Stage 5: aesthetic outcome and new mastery

When the visitor completes Stage 4 and enters into Stage 5, he is getting closer to an *Outcome 3,* that is, *a transformative aesthetic experience.* To complete Stage 5, the visitor must change his pre-expectations and self-image. At this stage the visitor is now capable of understanding the divergent or dissonant elements of his aesthetic experience and integrates the modification for his future encounters with artworks. For some authors the visitor may have a sense of cathartic freedom, epiphany, enlightenment, harmony, pleasure, and often tears (Elkins, 2001). That's what we can only hope for our visitors. As Pelowski and Akiba (2011) relate:

> "Viewers see more [, or experience more,] than they expect" (Elkins, p. 20). And, again, it is self-awareness, acceptance, and final forfeiture of one's expectations for control that leads to pleasure and epiphany. As Frijda (1988, p. 351) concludes, these instances result from meta-cognitive "awareness of [one's] state of action readiness" and, ultimately, "some change" in one's expectations for this state. Koestler (in Frey & Langseth, 1985, p. 92) adds; these experiences too are always "self-transcending" (p. 91).

6. Conclusion

We presented Pelowski and Akiba's (2011) psychological model of art experience in relation to our previous research results. Through the five stages, including both dissonant and consonant moments, the model articulates the possible reactions of museum's visitors in their appreciation of contemporary art. This model, by its structure, allows to present the various facets of an experience that is multifactorial. The model documents the possibility for a visitor to overcome the gap perceived between his self-image and the artwork he is viewing. This is done through perseverance, accompanied by moments of self-awareness and a meta-cognitive approach in his art appreciation. These, have the potential to transform the visitor and his relationship with contemporary art. This could also entice an individual to compose with diverse situations that are at first perceived as undesirable and nonetheless anticipate that they might on the contrary foster positive experiences contributing to the individual's development. Our previous research has informed us about the various manifestations of consonances and dissonances mentioned in this model, we must now seek to grasp the components and dynamics of an awareness of self, experienced by visitors during an aesthetic experience.

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ACTION HELPS TO CONSTRUCT A REPRESENTATION OF TIME FROM CHILDHOOD TO ADULTHOOD

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Abstract

Unlike other forms of perception, like visual or auditory perception, time cannot be directly processed by human 'senses. Consequently, we have to perceive time through mental representations. Neuroimaging and behavioral studies have shown strong functional links between action and timing processes. Some authors propose that timing and movement are integrated together in coupled sensory-motor representations. For example, studies conducted with trained musicians have confirmed that action improves perception of time. However, no study has yet examined the beneficial effect of action on the construction of interval representation in children. We conducted a series of three studies with 5-year-olds, 8-year-olds and adults to examine the beneficial effect of action on the perception of time. In all three studies, participants first learned a rhythm by watching a rhythmic sequence of 33 dots (800ms ISI). Within each age group, half of the participants tapped in synchrony with the onset of the dots (visuo-motor learning), whereas the other half simply looked at the dots (visual learning). In the first study, upon extinction of the visual input, participants reproduced this rhythm three times in a row, without re-presentation of the visual rhythm. In the second study, they performed a discrimination task on probe rhythms (400-ms, 600-ms, 800-ms; 1000-ms or 1200-ms ISI), indicating whether or not each rhythmic sequence of 5 dots corresponded to the learned rhythm. In the last study, they performed a discrimination task on single probe intervals (400-ms, 600-ms, 800-ms; 1000-ms and 1200-ms interval) rather than rhythmic sequences. The results demonstrated that 5 year-olds performance was clearly improved (made more accurate) by visuomotor versus visual learning for both motor (Study 1) and perceptual (Study 2) representations of rhythm. Visuomotor learning also improved perceptual timing in 8 year olds, for both rhythms (Study 2) and single intervals (Study 3). Finally, even high-performing adults benefitted from visuomotor learning in the most challenging interval discrimination task (Study 3). In conclusion, these results indicate that action helps create a more precise representation of time in the human mind throughout the lifespan. More specifically, our results suggest that a motor representation of time can be transferred into a perceptual one from the age of 5 years old, although it can be abstracted from its rhythmic context only from the age of around 8.

Keywords: Children, neuropsychology, synchrony, motor, behaviour.

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THE USE OF THE OPERANT PROCEDURES BY TURKISH PARENTS

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Abstract

The everyday parent-child dyadic interaction includes a lot of occasions in which operant conditioning procedures are used by parents to shape the behavior of their children . The aim of the present study was to examine the frequency of the use of positive reward, positive and negative punishment, and withholding of attention as a specific kind of negative punishment by Turkish parents. Whether the frequency of the use of each operant procedure is related to gender, education level and personal history of the parent was also studied. 448 Turkish parents (334 mothers ($M = 38$, $SD = 6.99$), 114 fathers ($M = 41.92$, $SD = 7.60$) completed a questionnaire including items about the frequency of the use of each operant procedure and the use of each procedure by the parents of the participants. They were also asked to give examples of their use of each procedure. A 4 (procedure) x 2 (gender) x 5 (education level) mixed model ANOVA with procedure as the within-subjects factor, and gender and education level as the between-subjects factors demonstrated a significant main effect of procedure. Positive reward was found to be the most frequently used procedure followed by negative punishment, positive punishment and withholding of attention respectively. There was no main effect of gender and education level. The interaction between procedure and education was the only significant interaction. Follow-up analyses showed that the frequency of the use of positive reward and withholding of attention did not change depending on the education level whereas the frequency of negative and positive punishment decreased as the education level increased. Correlation analyses between the frequency of the use of each procedure by the participants and their parents revealed a significant moderate positive correlation for each procedure. These findings showed the effect of education on parents' use of operant procedures in their interaction with their children. In addition, they indicated that the exposure to the operant procedures in the past is an important factor related to the use of operant procedures in parenting. These findings will be discussed in terms of their implications for parenting in Turkish culture and the development of the future parent training programs.

Keywords: Parenting, operant conditioning procedure, culture.

1. Introduction

Instrumental conditioning is one of the mechanisms that shape the behavior of the organisms during their lifetimes (Domjan, 2015). The first empirical and theoretical analyses of this learning mechanism were conducted by Thorndike. As a result of his experiments with various animals, Thorndike (1898) suggested the law of effect stating that if a response of an organism in a presence of a stimulus is followed by a satisfying or pleasant consequence, then the association between the stimulus and the response becomes stronger whereas if a response is followed by an aversive or unpleasant consequence, then the association between the stimulus and the response weakens. In other words, if the consequence of a response of the organism toward a stimulus is pleasant for the organism, then the likelihood of repeating the response in the presence of the same stimulus increases whereas if the consequence of a response is unpleasant for the organism, then the likelihood of its repetition decreases. Skinner, another pioneer of instrumental conditioning, underlined the importance of the consequences of the behavior on its shaping like Thorndike (Domjan, 2015). Based on their ideas, four basic instrumental conditioning procedures were identified (Domjan, 2015). Positive reinforcement is a procedure in which the response of the organism leads to a pleasant consequence. It increases the likelihood of the response. For example, a child does his homework (the response) and receives chocolate (the pleasant consequence) from his father for doing his homework. The second procedure is positive punishment in which the response leads to an unpleasant consequence. It decreases the likelihood of the response. For instance, a child broke a glass (the response) and his mother yells at her (the unpleasant consequence). In negative reinforcement,

the response of the organism eliminates an aversive stimulus, and this elimination is the pleasant consequence of the response and increases the likelihood of the response. For example, the child does not like tidying his room and his mother allows him not to tidy his room (the elimination of the aversive stimulus) when he helps his mother for cooking (the response). The last procedure is negative punishment in which the response results in the elimination of the pleasant stimulus which is unpleasant for the organism and decreases the likelihood of the response. For instance, when a child swears (the response), his father forbids playing outside (the elimination of the pleasant stimulus which is unpleasant for the child).

As the examples given above suggest, the everyday parent-child dyadic interaction includes occasions in which operant conditioning procedures are used by parents to shape the behavior of their children (Bijou, 1976; Miltenberger & Crosland, 2014). Parenting practices are affected by a lot of factors. One of these factors is culture. Parents in different cultural contexts might differ in their degree of control, their strategy of control and their degree of warmth (e.g. Kagitcibasi, 1996; Pomerantz & Wang, 2009; Rudy & Grusec, 2006). Recent studies indicated that Turkish parents combine high level of behavioral control and high level of parental warmth in their interactions with their children (Kagitcibasi, 1996; Kircaali-Iftar, 2005). The aim of the present study was to examine the use of the operant procedures in this cultural context. Moreover, the effect of the education level and the parents' own learning history on the use of the operant procedures was also studied considering the findings showing the relationship between these factors and the parenting practices (e.g. Hortacsu, 1995; Kagitcibasi & Sunar, 1992; Miltenberger & Crosland, 2014; Sameroff & Feil, 1985).

2. Method

2.1. Participants

448 Turkish parents (334 mothers (M = 38, SD = 6.99), 114 fathers (M = 41.92, SD = 7.60) participated in the study. They were recruited by the students in the Psychology Department at Isik University in Istanbul, Turkey through snowball sampling. All of the participants had at least one child younger than 25 years of age. 65% of the participants were from Istanbul, and the remaining participants were recruited from 46 cities in Turkey. Additional characteristics of the sample is presented in Table 1.

Table 1. Characteristics of the Sample.

Characterictics	Mother	Father
Age	38	
Level of education		
Primary	9.06 %	2.68 %
Secondary	7.25 %	9.82 %
High school	42.90 %	29.46 %
University	35.65 %	45.54 %
Higher than univeristy	5.14 %	12.5 %
Working status		
Working	56.46 %	95.61 %
Not working	43.54 %	4.39 %
No of children		
1	37.43 %	37.17 %
2	46.71 %	52.21 %
3	11.38 %	7.96%
More than 3	4.49 %	2.65 %
Age of the oldest child (in years)	13.39	13.19

2.2. Instruments

The participants completed a questionnaire including items about the frequency of the use of positive reinforcement, negative reinforcement, positive punishment, negative punishment, and withholding of attention as a specific kind of negative punishment; and the use of each procedure by the parents of the participants. They rated the frequency of each procedure on a 4-point Likert scale. They were also asked to give examples of their use of each procedure. Most of the parents had difficulties in understanding the question about the negative reinforcement and some of them provided wrong examples for their use of this procedure; therefore the participants' answers regarding this procedure was excluded from the study.

2.3. Procedure

After the participants read and signed the consent form, they completed the printed questionnaire by themselves. But some of the participants were contacted through phone to complete the questionnaire. In such cases, a psychology student read the questions to the participants and marked their answers. The study took almost 10 minutes.

3. Results

A 4 (procedure) x 2 (gender) x 5 (education level) mixed model ANOVA with procedure as the within-subjects factor, and gender and education level as the between-subjects factors demonstrated a significant main effect of procedure, $F(2.86, 1211.91) = 54.95$, $p < .001$ $\eta_p^2 = .12$. As presented in Table 2, pairwise comparisons indicated that positive reward was the most frequently used procedure followed by negative punishment, positive punishment and withholding of attention respectively. There was no main effect of gender and education level, $F(1, 511) = 2.38$, $p > .05$ and $F(4, 511) = .37$, $p > .05$ respectively.

Table 2. The mean (standard deviations) of the frequency of the use of operant procedures by the gender and the education level of the parent.

	Positive Reward	Positive Punishment	Negative Punishment	Withholding of attention
Parent				
Mother	2.69 (.76)	1.81 (.80)	2.59 (.62)	1.59 (.71)
Father	2.73 (.84)	1.58 (.71)	1.91 (.66)	1.63 (.65)
Total	2.70 (.78)	1.76 (.79)	2.05 (.78)	1.60 (.70)
Education Level				
Primary	2.36 (.78)	2.27 (1.04)	2.16 (.85)	1.61 (.66)
Secondary	2.65 (.77)	2.00 (.08)	2.23 (.91)	1.43 (.56)
High school	2.71 (.78)	1.74 (.77)	1.93 (.76)	1.54 (.68)
University	2.78 (.75)	1.66 (.73)	2.07 (.76)	1.69 (.75)
Higher than university	2.71 (.82)	1.48 (.57)	2.29 (.78)	1.61 (.56)

The interaction between procedure and education was the only significant interaction, $F(11.43, 1211.91) = 2.33$, $p = .02$, $\eta_p^2 = .02$. To analyze this interaction in more detail, separate one-way ANOVAs were conducted on each operant procedure with the education level as the between-subject factor. The effect of the education level was significant on positive punishment, $F(4, 438) = 6.25$, $p < .001$. Pairwise comparisons showed that the frequency of the positive punishment is higher in parents with the lowest two education levels compared to other parents. The effect of the education level was also significant on negative punishment, $F(4, 439) = 2.51$, $p = .04$. Pairwise comparisons demonstrated that the frequency of the negative punishment was higher in parents with secondary school education compared to parents with high school education. There was no effect of the education level on positive reward and withholding of attention, $F(4, 440) = 2.08$, $p > .05$ and $F(4, 437) = 1.56$, $p > .05$ respectively.

The relationship between the use of the operant procedures by the parents and their use by the parents of the parents was analyzed through correlations. The frequency of the use of each operant procedure by the participants was significantly correlated with the frequency of the use of each procedure by their parents, $r=.23$, $p <.001$ for positive reward; $r=.39$, $p <.001$ for positive punishment; $r=.22$, $p <.001$ for negative punishment, and $r=.23$, $p <.001$ for withholding of attention.

4. Discussion

The aim of the present study was to examine the use of the operant procedures by Turkish parents. Positive reward was found to be the most frequently used operant procedure. This suggests that Turkish parents are mostly appreciating the behaviors of their children and provide satisfying or pleasant stimuli to them to reinforce their appropriate or desired behaviors. The negative punishment was found to be the second most frequently used operant procedure. Its higher frequency compared to positive punishment suggests that Turkish parents prefer withholding a pleasant stimulus to presenting an unpleasant stimulus to punish an inappropriate behavior. However, they do not prefer withholding of attention. Some of the parents mentioned that they cannot withhold attention if their children are conducting a misbehavior and they feel the need of stepping in and warning their children. This suggests

that withholding attention is not an accepted parenting practice in Turkish culture. Turkish parents integrate high level of behavioral control and high level of parental warmth (Kagitcibasi, 1996; Kircaali-Iftar, 2005). Attention might be an indicator of warmth as a result of which its withdrawal might not be accepted.

Mothers and fathers were found to be very similar in their preferences for the operant procedures whereas education was demonstrated to effect their use. Positive punishment was shown to be used more frequently by the parents with primary and secondary education compared to parents with higher levels of education. This procedure includes yelling, hitting, physically hurting and threatening which have detrimental effects on the social, cognitive and emotional development of children (e.g. Aunola & Nurmi, 2005; Barber, Olsen, & Shagle, 1994; Gershoff, 2002; Larzelere & Kuhn, 2005; Strassberg, Dodge, Petit, & Bates, 1994). Thus, its higher frequency suggests a need for the parent-training programs constructed to reduce the use of positive punishment in the presence of inappropriate or unwanted behaviors of children and to increase the use of other procedures like withholding of attention or differential reinforcement of other behavior by the parents with lower education levels. In the present study, the learning history of the parents was found to be related to their own use of the operant procedures. This suggests that individuals who observed their parents' use of particular operant procedures in their childhood use the same procedures when they become parents. The effect of this observational learning might be changed through the parent-training programs focusing on more effective procedures for behavioral change and parents who are trained to use these procedures will have children who will use them in the future.

The present study has several limitations. Despite the large sample size, the number of participants in each education level was not comparable with each other; therefore the effect of the education level should be interpreted carefully. Moreover, because of the fact that most of the participants had difficulties in understanding the items about the use of the negative reinforcement in the questionnaire, this procedure was not included in the present study. Future research might include this procedure and also focus on whether the use of operant procedures are changing depending on the age of children. In addition, the use of operant procedures might be related to the parenting styles and the attachment styles of the parents, and the behavioral and emotional problems in the children. Future research examining these relationships will provide a better insight on the use of these procedures and their effects on development.

All in all, the present study indicated that positive reward is the most preferred operant procedure by Turkish mothers and fathers to shape the behavior of their children. The education level and the learning history play a role in shaping the parents' preferences for the particular procedures. In the future, parent-training programs targeting specific groups of parents and focusing on the changes in the use of particular operant procedures can be developed on the basis of these findings for Turkish parents.

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PSYCHOLOGICAL INDICATORS OF SOCIAL INCLUSION AND EXCLUSION IN ETHNIC RELATIONS

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Abstract

Background: The purpose of this article is to solve some problems such as describing psychological indicators demonstrating social inclusion and exclusion in ethnic relations and interactions. The studying interethnic installations have been presented and shown the «cultural beacons» process of ethnic interaction.

Objectives: In our research, we have presented the importance understanding the ethnic installations, which consist of beliefs, sights, opinion of people concerning history and modern life of their ethnic generality and interrelations with other people in a sample of Russian, the Ossetin and Ingush nationalities.

Methods: Data was collected among representatives of Russian, the Ossetin and Ingush nationalities in two multicultural cities of the Russian Federation: in Vladikavkaz – republic North Ossetia capital –and in St.-Petersburg. 1140 participants with different social- demographic status estimated on five - a mark scale degree of emotional appeal of statements, belonging to known poets. In the first (a variant A – without installation) literary fragments for the estimation which authorship is not known are given. In the second (a variant B – with installation) which was offered through the certain period of time, with an interval in some days (3-7), the above-stated references were offered for estimation, but with instructions of their author's accessory installation on a national identity of each of the offered literary fragments, thus, is entered. MANOVA was used to test and effect of adjust, of an ethnic accessory or of a residence to estimate statements.

Results: The results of the multidimensional two-factorial dispersive analysis under factors shows without installation of significant distinctions it has not been revealed in statements estimations. However, the ethnic accessory and installation (without/installation) have shown that influence of ethnic installation significantly p<.001. It is possible to tell that influence of adjusting effect has appeared more strongly, than an ethnic accessory or a residence.

Conclusion: The results show that the installation rather than an ethnic accessory or a residence can be caused by social inclusion and exclusion especially in multicultural society.

Keywords: Ethnic attitudes, social inclusion, social exclusion.

1. Introduction

The problem of international and interethnic relations continues to remain one of the difficult, actual problems of modern society. The events of last years in number of regions of our country also have abroad shown drama, and at times and tragically character which interethnic relations can get. Studying of interethnic relations is sphere of scientific interests of various research schools and directions. However, as confirms D. Horowitz, this area «was until recently a backwater in social science». Interethnic relations are understood as social process; the social model of a society; the spontaneous and self-adjusted organization, which elements more or are less opposed the friend, but united at present; intercultural communications; interethnic communications; interethnic cooperation. Interethnic relations represent the system shown in an accessory «mine» - «stranger» or «another». In many works, which devoted to studying of interethnic relations, there is a statement about inevitability of interethnic intensity or its presence by default «is meant». The phenomenon of interethnic intensity and «balance» infringement in interethnic relations involves large quantity of researchers, rather than questions of maintenance or development of relations (Y. Kim, M. Sherif, T. Vanhanen, W.Gudykunst). H.- J. Axt, A. Milososki, R. Scollon, S. Scollon, Schwarz based on the results received in spent research, have come to a

conclusion that at interethnic relations practically always there is a system of an accessory «mine» - «stranger», leading to interethnic intensity, and the basic question consists only in definition of level of a social context in the course of interaction between ethnic groups.

The problem of maintenance of harmonious interethnic relations, search of mechanisms and ways of their stabilization, draws attention of many researchers. However, F. Casmir rejects possibility of construction of interethnic relations on the basis of domination, and considers that joint search which will inevitably lead to formation of "the third culture». J. Fearon and D. Laitin have proved that it is impossible to exclude completely occurrence of various "defects" in interethnic relations, nevertheless, the aspiration of both parties to cooperation should be considered as basic strategy of "correct" behavior. Studying of interethnic intensity, the psychological factors determining functioning and development of interethnic relations probably through understanding of a role and value of adjusting phenomena of various level, with accent on their affective aspect functions in the course of international interaction. In this connection, it is necessary to give special attention to research of interethnic installations which are shown as «cultural beacons» process of ethnic interaction. Ethnic installations are shown when the person estimates and arrives as the person included in an ethnic group. Ethnic installations consist of belief, sights, opinion of people concerning history and modern life of their ethnic generality and interrelations with other people.

2. Objectives

Research was spent in two multicultural cities of the Russian Federation: in Vladikavkaz – republic North Ossetia capital – Alanija and in St.-Petersburg. The parity of sample Vladikavkaz – St.-Petersburg makes 47,1 % (Vladikavkaz), 52,9 % (St.-Petersburg). At different stages various socially-demographic groups took part in research: working and idle, pensioners and housewives, students and businessmen etc. the Data on an educational level in St.-Petersburg and in Vladikavkaz differs significantly at Ingush and Russian, p <.001. In total 1140 persons have taken part in research.

3. Methods

Task essence: respondents were offered to estimate on five - a mark scale degree of emotional appeal of statements, the quatrains belonging to known poets – to the thinkers living during the different periods of ability to live, belonging to the various people and cultures. The fragments presented for estimation contain the information on an accessory of the author to "the" or "other" culture. In the first (a variant A – without installation) literary fragments for the estimation which authorship is not known are given. Thus, at respondents the uncertainty situation, «cognitive vacuum» for estimation is created. As unique criterion of an estimation the subjective-objective opinion of the respondent concerning appeal of the offered literary fragments in this case acts. Examples (5) of fragments will be given to respondents without the information about the authors. It was only the text of different literary fragments.

In the second (a variant B – with installation) which was offered through the certain period of time, with an interval in some days (3-7), the above-stated references were offered for estimation, but with instructions of their author's accessory installation on a national identity of each of the offered literary fragments, thus, is entered. Respondents are misled and are under influence of installation concerning an author's accessory of literary fragments. Examples of fragments with installation: 1.«… Now year I have passed. I am elderly other. Also, I feel and I think differently. Also, I speak behind celebratory wine: Praise and glory to the helmsman». The *Arabian poet the Lobster Khayyam. 2.* «The strong chain to us have squeezed a neck; in wild emotions relics without sparing, of Ancestors of tombs, wonderful mountains us have deprived, - and the back …» has got tired from twigs. The *Chechen poet Ruslan Jusupov. 3.* « I realise … That as the poet, was too early, And, to become the prophet – too was late ». *Russian poet Sergey Yesenin. 4.* « It is necessary to live, without frowning and without crying … To spite of a hardship and destiny to spite. You good luck Perhaps, will find and you will tell to yourself: «To me has carried». *Ossetin poet K.L. Hetagurov. 5.* «I have not reached some water though from thirst suffered, I have not reached a halt though to people appealed. And, it is always wretched, with heart pain. I have not reached that purpose of which dreamt». The *national poet of Dagestan R. Gamzatov.*

It is necessary to pay special attention on that fact that the true authorship of known references has not been noted or commented by any of the interrogated respondents. A key: the Fragment 1 belonged to Russian poet Sergey Yesenin («the Letter to mother», 1924); the fragment № 2 belonged to the Ossetian poet – Kosta Hetagurov ("Sob", 1906); the fragment № 3 belonged to the national poet of Dagestan to Rasul Gamzatov; the fragment № 4 belonged to modern Chechen poet Ruslan Jusupov; the fragment № 5 belonged to the Arabian poet-thinker the Lobster to Khayyam («I have not reached some water though from thirst suffered»).

4. Discussion

The results received by a technique «Installation and interethnic relations», allow to reveal a phenomenon of a cultural both psychological accessory «mine» and «another's», through influence of ethnic installation which was showed in the various emotionally-estimated relation to the offered fragments. The important factors which have influenced formation of estimated system of relations «pleasant - it is not pleasant», are: an accessory «mine» and «another's», the relation to «mine» and to «others», level of tolerance of the person to the unknown person. These indicators are interconnected among themselves, being crossed, they reflect three major spheres of interethnic relations: national-cultural characteristics of groups, features of their social perception, feature of interethnic interaction. It is possible to note those indicators which can be revealed by means of the offered technique. So, the technics of double measurement of tolerance, for example, has been used. At the first level tolerance level is measured in an unfamiliar, unknown situation when the authorship of references is not known. At the second level of tolerance under the influence of action of the ethnic installation defining a national-cultural accessory of authors of specified references is measured.

Methodical working out «Installation and interethnic relations» shows value of an accessory «mine» and «another's» on formation of estimated system of relations. The results received by the given technique, allow to measure influence of ethnic installation on the importance of an accessory «mine» and-or «another». The first measurement has shown that without the information on authorship of the references offered for estimation, in all groups of respondents, irrespective of their ethnic accessory and the place of residence, the tendency of «averaging» of estimations, stable and static prevalence of the estimations which are in a zone neutral of estimations is observed. However, at the second level when respondents «learn» authorship of references, there is a transition from a latent condition in a zone of contrast estimations. Process of formation of estimations «is pleasant – it is not pleasant» occurred under the influence of the ethnic installation defining an ethnic accessory of authors of references. The interrogated respondents of an Ossetian nationality at a presentation of literary fragments without the information on their authorship, were in a zone of «averaging» of estimations to all fragments. However, after a presentation of the same fragments, with instructions of their author's accessory, answers of respondents have significantly changed. On the schedule it is shown, how the relation to a literary fragment at the Ossetin, under the influence of the information on authorship changes. The highest indicators of estimations are noted in Ossetian sample in a fragment which «mine» belongs to a category - «very much it is pleasant» (a fragment 4 – the Ossetin poet), among a category «another» – it «is pleasant» (a fragment 3 – the Russian poet). The system of distribution of estimations «is pleasant – it is not pleasant» at the interrogated Russian respondents also has shown that the most preferable is the category «mine», in this case the Russian poet (a fragment 3) to which an appreciation has been put as much as possible – «very much is pleasant». Categorization on «mine» and «another» has proved to be true also in estimations of respondents of the Ingush nationality in which estimations the highest estimations – «very much it is pleasant» have been exposed to a fragment 2. Data received by us, confirms a phenomenon of the welfare categorization based in the importance of an accessory «mine» in relation to a category «another». The further comparisons were spent in several directions. At first average values of estimations of appeal of fragments in the place of residence were compared. The tendency to estimate the literary fragments characterized by absence of installation, is shown in the average tendency that are in a range of answers «I find it difficult to answer»: max 2,854 (St.-Petersburg), min 2,616 (Vladikavkaz) (figure 1).

Figure 1. Without attitude.

	Saint Petersburg			Vladikavkaz			
	N	Mean	SE	N	Mean	SE	p
fragment 1	72	3,01	,126	22	2,45	,277	**,044***
fragment 2	72	3,64	,129	22	3,45	,277	,509
fragment 3	72	2,38	,123	22	2,82	,234	,088
fragment 4	72	2,10	,136	22	1,91	,245	,504
fragment 5	72	3,14	,146	22	2,45	,285	**,028***

At level of significant distinctions P <.001* distinctions in estimations have been revealed by the respondents living in Vladikavkaz and in St.-Petersburg, the first (the Arabian poet) and the last (the Dagestan poet) fragments in which the different relation to *the maintenance* is shown, and, hence, differently estimate their appeal. The tendency to estimate the literary fragments have been characterized

by presence of ethnic installation, is visually shown at Ossetian respondents in transition from an average tendency to polar in which extreme values are in a range from it "is pleasant" to perfect it "is not pleasant" (figure 2).

Figure 2. With attitude.

	Saint Petersburg			Vladikavkaz			
	N	Mean	SE	N	Mean	SE	P
fragment 1	61	1,85	,069	16	2,38	,256	,065
fragment 2	61	3,36	,081	16	4,19	,262	**,007***
fragment 3	61	2,26	,170	16	2,00	,224	,357
fragment 4	61	1,21	,053	16	1,38	,125	,246
fragment 5	61	1,57	,068	16	2,25	,310	**,048***

At level of significant distinctions P <.001* distinctions in an estimation by the Ossetian respondents living in St.-Petersburg and Vladikavkaz, the second (the Chechen poet) and the last (the Dagestan poet) from the offered fragments in which degree of their appeal or unattractiveness is shown are revealed. The highest values belong to a category «mine» (a fragment 4), then a category «another» (a fragment 3 – the Russian author), the least values from a category «another» (a fragment 2 – the Chechen poet).

Results of the multidimensional two-factorial dispersive analysis under factors: a nationality and installation (without/installation) a distance significant indicator under factors p <.001, interaction of factors: p =. 030. Installation influence significantly in all fragments which have been offered for estimation to respondent's level p <.001. Influence of an ethnic accessory of respondents significantly, in answers to fragments the Arabian poet the Lobster Khayyam, Ossetian poet K.L. Hetagurov and the Chechen poet R. Jusupov. Interaction of factors an ethnic accessory and the place of residence in answers to a fragment of the literary fragment belonging to the national poet of Dagestan R. Gamzatov (figure 3) is significant.

Figure 3. Var –meaning.

attitude	Frag-ments	Ingush			Russian			Ossetin			p		
		N	Mean	SE	N	Mean	SE	N	Mean	SE	Var	t-test	M-W
Without attitude	Frag. 1	24	2,54	,364	94	2,88	,118	14	2,50	,374	,459	,259	,098+
	Frag. 2	24	4,64	,257	94	3,60	,117	14	3,64	,357	,140	,888	,4017
	Frag. 3	24	2,78	,152	94	2,48	,110	14	2,79	,350	,269	,331	,405
	Frag. 4	24	2,56	,174	94	2,05	,118	14	1,57	,173	,191	,129	,688
	Frag. 5	24	3,02	,302	94	2,98	,133	14	3,07	,305	,350	,799	,096+
With attitude	Frag. 1	13	1,24	,062	60	2,30	,135	77	1,96	,079	**,000***	**,033***	,058+
	Frag. 2	13	1,02	,012	60	3,13	,149	77	3,53	,092	**,001***	**,025***	**,045***
	Frag. 3	13	3,64	,024	60	2,20	,121	77	2,21	,142	**,007***	,967	**,064***
	Frag. 4	13	4,84	,047	60	1,85	,134	77	1,25	,049	**,000***	**,000***	**,000***
	Frag. 5	13	2,44	,082	60	2,80	,159	77	1,71	,088	**,000***	**,000***	**,000***

Multidimensional tests in each group are significant: p <.001. Values of Var-distributions of the dispersive analysis asymmetric that specifies in considerable distinctions. Results of the multidimensional two-factorial dispersive analysis under factors: the ethnic accessory and installation (without/installation) have given indicators under factors p <.001. Installation influence significantly in all fragments which

have been offered for estimation to respondent level p <.001. It is possible to notice that influence of adjusting effect has appeared more strongly, than an ethnic accessory or a residence. Value of psychological effect of an accessory «mine» is a steady and prevailing tendency in answers of respondents, irrespective of their place of residence and a national identity. Methodical working out «Installation and interethnic relations» has shown the importance of an accessory «mine» and «another» in all groups of the interrogated respondents. The data received by us, confirms a phenomenon of a welfare categorization, in the importance of an accessory «mine» in relation to a category «another».

5. Conclusions

The next decade, in our opinion, will be devoted studying of a role of socially-psychological phenomena, revealing social factors of economic well-being of a modern Russian society. Preventive maintenance of occurrence of ethnic intensity, ethnic conflicts, and relapses of their displays, search and approbation of mechanisms formation of harmonious interethnic relations, for the purpose of creation of a stable and safe Russian society will be a priority problem. The special attention and value will occupy adjusting phenomena of various level, with accent on their affective aspect and main functions in the course of international interaction, understanding the phenomena of social inclusion and social exclusion in ethnic relations. Our research had shown the significant influence of a role of ethnic attitude in construction the relations: the more social distance between a category «mine» and «other» that means the social exclusion. On the other hand, the less social distance between a category «mine» and «other» that means the social inclusion in all social, cultural, ethnic groups.

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EFFECTS OF PARENTING STYLES AND FEEDING STYLES ON ADOLESCENT MENTAL - HEALTH

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Abstract

A growing body of evidence suggests deterioration in the quality of food consumed by adolescents over past decades increasing their vulnerability to have mental health problems. One type of environmental influences that has received increasing research attention in recent years is the influence of parenting styles on children's dietary behavior through feeding practices. Given (a) there is a relationship between diet quality and mental health in adolescent and, (b) consumption of food could be influenced by parenting styles and feeding practices, the purpose of this study was to examine the effect of parenting styles, with their feeding styles on mental health of adolescent. The population for the study consisted of parents of 120 adolescents. Data was collected using Parenting Styles and Dimensions Questionnaire (PSDQ), Caregivers Feeding Style Questionnaire (CFSQ) and Student Risk Screening Scale(SRSS-IE). One-Way MANOVA were performed in order to examine the effect of 'Parenting Style' and 'Feeding Style' on adolescent behavior. The findings revealed no significant difference between parenting styles and adolescent mental health; Pillai's trace = 2.10. However, the Pillai's trace value of 1.16 was found to be significant for feeding styles and adolescent mental health, post hoc analysis revealed a significant difference among authoritative and indulgent feeding style.

Keywords: Parental styles, feeding styles, internalizing and externalizing behavior, adolescent, MANOVA.

1. Introduction

It is estimated that, each year 20% of adolescents suffer from a mental health disorder (UNICEF, 2012). Therefore investigating the factors influencing the psychological well-being of young people is a high priority. One such factor is the type of food consumed by adolescents. Evidence demonstrates that there is gradual declines in the quality of diet young people have in recent times (Nielsen and Popkin, 2003). Over a past decade, several researches have focused on the role of habitual diet in the development of internalizing behaviors which represent low mood, depressive symptoms or anxiety (Akbaraly and Brunner, 2009). A study by Jacka et al., (2011) highlights the importance of diet in adolescence and its potential role in modifying mental-health over the life course. Eating habits of an adolescent may be influenced by several potential factors; the one being rigorously researched is the role of social environment on dietary behavior. One of the most influential components of the adolescent's immediate environment is the family. A type of family influence that has received increasing research attention in recent years is the influence that parents may have on their children's dietary behavior through food – related parenting practices (Fisher and Birch, 2000). Parenting involves a great responsibility in limiting and promoting behaviors in children, especially eating behaviors. Decades of research have been dedicated to developing a framework for parenting styles. Diana Baumrind's (1967) authoritative, authoritarian and permissive typologies are currently widely employed models of parenting styles and an extensive large body of research has established strong associations between each parenting style and a particular set of child behaviors. Baumrind (2013) conceptualized three parenting prototypes to explain patterns of parental control and child socialization, viz. (a) Authoritative parents – high on acceptance and behavioral control, but low on psychological control, (b) authoritarian parents – rejecting and psychologically controlling and (c) permissive – accepting and exhibiting lax behavioral control. (Baumrind, 2013). conceptualized authoritative parents as rational, warm, encouraging and controlling in a way that promotes child autonomy. Authoritative parents value a child's individuality but also stress social constraints. In accordance with this, Maccoby and Martin (1983), state that authoritative parent are clear in setting rules and often use reasoning to enforce them. Parental warmth, emotional support,

appropriate granting of autonomy and clear, bidirectional communication lead to positive developmental outcomes in children and adolescent. These constellations of characteristics are found in authoritative parenting styles, also identified to be an optimal parenting style. According to Baumrind, authoritarian parent's value control and unquestioning obedience are highly demanding and often punitive and forceful in order to adhere to an absolute standard of behavior. This parenting style has been related to less optimal child outcomes, including lower self-esteem and self-efficacy (Baumrind et al., 2013), increased rebelliousness and externalizing problems. Permissive parents value self-expression and self-regulation. Parents included in this type are affirming and place few behavioral demands on the child. These parents avoid coercive or confrontive practices as much as possible. Maccoby and Martin (1983) have conceptualized permissive parents as indulgent and allowing children to make their own rules and decisions. Adolescents having such parents have lower achievements lack impulse control (Maccoby and Marin, 1983) and have lower autonomy (Baumrind et al., 2013). Based on Baumrind's taxonomy, Birch and Fisher identified three child-feeding patterns. Authoritarian feeding is characterized by attempts to control the child 'eating with little regard for the child's choices and preferences. Authoritative feeding encourages a child to eat healthy foods, but the child is also given autonomy for eating options. Permissive feeding is whereby the child is allowed to eat whatever he or she wants in whatever quantities he or she wants. The model given by Birch and Fisher (1995) helps us to understand along with different parenting styles, parents even follow a distinct feeding style which may have a direct or an indirect influence over a child's concept of healthy or unhealthy eating. As research suggests lack of inadequate nutrition-dense food may be one of the important causal factors in the development of psychological problems like anxiety, depression and other internalizing behaviors. Although one set of empirical studies points out the importance of parenting feeding styles and its crucial role in inducing a healthy eating behavior in a child (Patrick, Theresa and Nicklas, 2005) and second set of studies have established a positive association between healthy eating habits and psychological well-being in adolescent (Jacka et al., 2011; O'Niel et al., 2014;) there is a lack of a comprehensive study wherein the effects of all these variables are examined together. Especially in country like India, where child autonomy is not given importance, parenting styles would have a larger impact in shaping adolescents eating behavior and its subsequent effects on their mental-health.

2. Design

A quantitative research study of multifactorial design (2x4), having two independent (Parenting Style & Feeding Style) each having levels (Authoritarian, Authoritative and Permissive Parenting Style), (Authoritarian, Authoritative, Uninvolved & Indulgent Feeding style). The study has two dependent variables namely internalizing & externalizing behaviors.

3. Objectives

I. To examine the role of parenting styles on the internalizing and externalizing behaviours among Indian adolescents.
II. To examine the effect of feeding styles adopted by parents on internalizing and externalizing behaviors in Indian adolescents.

4. Method

4.1. Participants & data collection
The target population for this study was parents of 100 Indian adolescents of age group of 10 – 12 years of age (Grade 5 to 7). The data was collected from various schools established in the city of Thane, Maharashtra. The gender of the child was not considered.

4.2. Measures

1. *Parenting Styles & Dimensions Questionnaire (PSDQ)* (Robinson et al., 1995) is a self-report instrument designed to measure authoritarian, authoritative, and permissive parenting styles of 4-12 years old children's parents. The tool was designed around Baumrind's three main typologies (authoritative, authoritarian, and permissive. The scale includes 62 items. Each item of the scale is evaluated with the five points Likert described as, "never", "once in a while", "about a half of the time", "always".

2. *Caregivers Feeding Style Questionnaire (CFSQ)* (Hughes et al., 2005) measures the feeding styles of the parents Based on dimensions of demandingness and responsiveness reflective of a general parenting paradigm, the CFSQ measures the overall feeding pattern of parents. Dimensions of demandingness and responsiveness are derived through 7 child-centered and 12 parent-centered feeding

directives measured on a 5-point Likert scale (ranging from *never* to *always*). A cross classification of high and low scores on the two dimensions indentifies four feeding styles: authoritative (high responsiveness, high demandingness), authoritarian (low responsiveness, high demandingness) and uninvolved (low responsiveness, low demandingness).

3. *Student Risk Screening Scale-Internalizing and Externalizing* (SSRSS-IE) (Durummond, 1994) - is a behavioral screening instrument to help identify internalizing behaviors. It is a 12 item screening instrument consisting of 7 items (internalizing behaviors) and 5 items (externalizing behaviors). The items are rated on a four-point Likert-type scale (never= 0, occasionally = 1, sometimes = 2, frequently = 3). Total scores are summed (range = 0–21, with higher scores indicating higher risk) and used to classify student in 3 categories: low (0–3), moderate (4–8), or high (9–21).

4.3. Statistical Analysis

One-way MANOVA was calculated twice to study the effects of Parenting Style and Feeding Style on Adolescent Mental Health.

5. Results

The descriptive statistics for variable 1: Parenting Styles for Internalizing and Externalizing Score has been shown in Table no: 1 & descriptive statistics for variable 2: Parental Feeding Styles for Internalizing and Externalizing Score has been shown in Table no: 2

Table 2. Descriptive statistics for parental feeding styles and internalizing, externalizing behaviors

	Parenting Styles	Mean	Std. Deviation	N	Parental Feeding Styles	Mean	Std. Deviation	N
Internalizing Scores	authoritative style	3.78	3.012	50	authoritarian feeding style	4.12	3.523	34
	authoritarian style	5.00	3.691	38	authoritative feeding style	4.83	3.214	23
	permissive style	3.94	3.292	32	indulgent feeding style	4.40	3.432	35
					uninvolved feeding style	3.57	3.108	28
	Total	*4.21*	*3.330*	*120*	*Total*	*4.21*	*3.330*	*120*
	Parenting Styles	Mean	Std. Deviation		Parental Feeding Styles	Mean	Std. Deviation	N
Externalizing Scores	authoritative style	3.72	2.872	50	authoritarian feeding style	3.82	3.597	34
	authoritarian style	3.21	3.699	38	authoritative feeding style	3.00	2.970	23
	permissive style	4.81	3.797	32	indulgent feeding style	4.83	3.674	35
					uninvolved feeding style	3.36	3.141	28
	Total	*3.85*	*3.434*	*120*	*Total*	*3.85*	*3.434*	*120*

The MANOVA revealed no significant main effects seen between parenting styles and adolescent internalizing and externalizing behaviors (Pillai's Trace = 0.70; F (4, 234) = 2.109, n.s.). There was a significant main effect between Parental Feeding Styles and Internalizing and Externalizing adolescent behavior, Pillai's trace = 0.58; F(6, 232) = 1.162, $p < .05$ (refer table no. 3).

Table 3. Multivariate tests.

	Effect	Value	F	Hypothesis df	Error df	Sig.
Parenting Styles	**Pillai's Trace**	.70	2.109	4.000	234.000	.081
Feeding Styles	**Pillai's Trace**	.058	1.162	6.000	232.000	.016

ANOVA for Feeding Styles and Internalizing/Externalizing behavior revealed significant externalizing scores, F (3, 120) = 1.636, $p < .05$.(Tbale no:4)

Table 4. Test of between-subject effect.

Source	Dependent Variable	N	df	F	Sig
Feeding Styles	Internalizing Scores	116	3	.646	.587
	Externalizing Scores	116	3	1.636	.045

Finally, a series of post-hoc analysis (Fisher's LSD) were performed to examine individual mean difference comparison across all four levels of parental feeding style and two behavior subscales. The results revealed that post-hoc mean comparison for externalizing scores were significantly different on authoritative feeding style and indulgent feeding style, t (120) = 1.83, p<.05 (refer table no. 5)

Table 5. Comparison using Fisher's LSD.

Dependent Variable	Parental Feeding Styles	Mean Difference	Sig.
	Authoritative Feeding Style	1.83*	.04
Externalizing Behavior			
	Indulgent Feeding Style		

6. Discussion

One of the aims of this research was to demonstrate an effect of parenting disciplinary styles on the adolescent externalizing and internalizing behaviors. The insignificant main effect, however, indicated that there was no such significant effect seen. Several factors may seem to have contributed to such results. Peer influence is one such factor. As adolescent's work to form their identities, they pull away from their parents and the peer group becomes very important (Shanahan et al., 2007). The peer group is important for adolescent social and emotional development as they derive a sense of belongingness and acceptance from peer's. The level of influence that peers can have over an adolescent makes these relationships particularly important in psychological development. Emotionally supportive peer relationships aid in emotional adjustment and create protective factors that defend children against psychological stressor (Hamre and Pianta, 2005). Colarossi and Eccles (2003) have found that support from friends is related to lower depression and higher self-esteem in adolescent. Studies have shown that support from an adolescents' peer group has consistently been associated with adjustment, specifically lower depression and hyper activity higher leadership and better social skills (Rueger et al., 2010). A trusting and warm peer relationship is an important part of the emotional development in an adolescent's life making them less vulnerable to develop internalizing or externalizing behaviors in spite of extreme or unhealthy parenting practices. Another factor is Grandparents as caregivers. Grandparents often serve as a positive influence in the lives of their grandchildren by taking on various roles such as caregiver, playmate, advisor and friend (King et al., 2003). Demographics details of present research reveal many adolescents coming from families having parents and grandparents living together. Research indicates that grandparent-grandchild relations are associated with positive adolescent outcomes. For instance, one study found that greater grandparent involvement is associated with fewer emotional problems and more positive outcomes among adolescent (Attar-Schwartz et al., 2009). A cultural display rule dictates the types and frequencies of emotional displays considered acceptable within certain cultures (Malatesta and Haviland, 1982) which guide how people choose to regulate their emotions, ultimately influencing an individual's emotional experience. In Indian context, expressions of negative emotions by children are to a larger extent condemned by parents. Freedom of expression is still considered as against the cultural code of conduct. On the other hand, an adolescent in a typical Indian household may not feel comfortable expressing negative emotion in front of the family audience but may share it with peers or may demonstrate externalizing behaviors outside the house. Therefore, such behaviors may go unnoticed by parents. Therefore, factors like Peer Influences, Grandparents support and Cultural Display Rules may seem to have contributed to insignificant results for the first objective of the study.

Other objective of the present research was to demonstrate the effect of parental feeding styles on externalizing and internalizing adolescent behaviors. The multivariate analysis indicated a significant main effect, thus retaining hypothesis no. 2. Post hoc analysis revealed that externalizing behaviors are significantly affected by authoritative feeding style and indulgent feeding style. In a study conducted by Patrick et al., (2005), authoritative feeding style was positively associated with the attempts to get the child to eat dairy, fruit and vegetables, thus protecting the child against obesity. However, researchers have found that indulgent parents who are responsive to their child's emotional states but have problem setting appropriate boundaries had children with highest BMI percentiles (Hughes et al., 2008). Several evidence studies have shown that obese adolescents have a higher incidence of mental health problems such as depression, anxiety than non-obese teens (Luppino et al., 2010). Thus, along with demonstrating a link between indulgent feeding style and externalizing behavior, the results also signify the importance of healthy parental control on children's food consumption patterns as a protective measure against development of mental health problems.

The present study demonstrates that factors other than parenting styles may seem to have a profound effect on adolescent mental health. The present research parenting styles did not have any effect on adolescent mental health however there was an effect of parental feeding style on the externalizing behaviors.

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RESILIENCE, RISK-TAKING & STUDENTS' EMIGRATION INTENTIONS IN THE CONTEXT OF THE HEALTH BELIEF MODEL

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Abstract

Background: The Health Belief Model (HBM) was modified to study emigration intentions. In this modification, the perceived threat to financial living conditions (PT) was hypothesized to affect emigration intentions, together with emigration self-efficacy, perceived benefits and perceived barriers of emigration. Resilience and risk-taking were also considered as relevant variables. The length of the planned stay abroad was taken into account as well.

Objective: To examine the relationships between resilience, risk-taking, factors of the modified HBM (PT, perceived barriers, benefits and self-efficacy) and emigration intentions among Slovak university students.

Methods: Data were collected online at 17 universities in Slovakia (n=489, 76.5% women, M=22.8, SD=3). Emigration intentions were identified by single items question. PT was defined by students' perception of their economic situation. Perceived benefits were measured by students' evaluations of the importance of factors attracting them to emigrate and perceived barriers were measured by students' evaluations of the importance of the factors keeping them from leaving. Risk-taking and resilience were measured by the DOSPERT and the CD-RISC. A multinominal logistic regression was used for the analysis which was adjusted for gender.

Findings: 24% of students planned a long-term stay abroad. The regression model explained about 36.7% of the variance in emigration. It showed that those who plan a long-term stay abroad: 1) have a higher level of PT (OR=.45), perceived benefits (OR=.87), self-efficacy (OR=.61) and risk-taking (OR=.93) and a lower level of perceived barriers (OR=1.2) and resilience (OR=1.18) when compared to those who don't plan to move at all; 2) differ in the same way from the undecided, with the exception of perceived benefits in which there is no difference; 3) have a higher level of PT (OR=.5) and lower level of perceived barriers (OR=1.19) when compared to those who plan a short-term stay.

Conclusion: The findings have supported the relevance of the modified HBM in the study of emigration intentions since all the factors were related to emigration intentions as expected. Those who plan to leave their country were also found to be less resilient and more willing to take risks than those who did not plan to leave or were undecided about leaving.

Keywords: Emigration intentions, health belief model, barriers and benefits of emigration, self-efficacy.

1. Introduction

The Health Belief Model (HBM) assumes that what people believe about a behaviour targeted at reduction the threat determines what they will do. The original HBM has been revised to six factors predicting the probability that an individual implements a certain behavioural strategy (Groenewold, Bruijn & Bilsborrow, 2006). The first two factors, namely perceived susceptibility and perceived seriousness represent the perceived threat of a situation. The factors of perceived benefits and perceived barriers represent outcome expectations from the behaviour directed at reducing the perceived threat. The concept of cues to action relates to events or experiences that stimulate an individual's direct need to perform this behaviour. However, its role has been less sufficiently examined. The last and newest factor added to the HBM is self-efficacy, directly adapted from Bandura's social cognitive theory (Rosenstock 1988, in Groenewold, Bruijn & Bilsborrow, 2006). Groenewold, Bruijn & Bilsborrow (2006) tried to adapt and verify the applicability of the HBM in the study of emigration intentions. They generalized the key concepts of HBM and transposed them into an explanatory model with the following factors: the perceived threat to financial living conditions (state X) and emigration as a behavioural action directed at

reducing this perceived threat and improving living conditions (action Y), beliefs about the usefulness of emigration for decreasing this threat (perceived benefits of emigration), the obstacles to emigration (perceived barriers of emigration) and the confidence in one's ability to effectively perform the emigration behaviour (emigration self-efficacy).

We aim to study the contribution of the four main factors of the modified HBM – perceived threat to financial living conditions, perceived benefits of emigration, perceived barriers of emigration and emigration self-efficacy into the explanation of emigration intentions. Moreover, we chose to consider risk-taking and resilience as potentially relevant factors. The decision to migrate is always a decision under uncertainty about the future (Nowotny, 2010, Canache et al., 2013) and is also associated with risk. Therefore, it is also linked to personality traits that may make people more likely to leave or to stay (Canache et al., 2013). Jaeger et al. (2010) have suggested that individuals who are more willing to take risks are more willing to migrate as well.

Psychological resilience is defined as an individual's ability to successfully adapt to life changes (Pecillo, 2016). Resilient people are more often people with more positive attitudes who experience more positive emotionality due to their ability to effectively counter negative emotions with positive emotions (APA, 2017). A lower level of experiencing positive emotions among less resilient people may be related to the desire to change the place of living. It can be hypothesized that emigration can represent a short-cut solution for people less able to cope with the obstacles in the home country. On the other hand, this ability to adapt to change can be a useful skill for those who emigrate as it can help them to adapt and acclimate in the foreign country. Therefore, we also wanted to examine resilience and in which way it is related to emigration intentions in the pre-migration phase.

2. Objective

To examine the relationships between emigration intentions and factors of the modified HBM, risk-taking and resilience among Slovak university students.

3. Methods

3.1. Sample and procedure

All universities in Slovakia were invited to join the research project and 51% of them answered the official call for participation. Students were asked formally (by their university websites, information systems or official Facebook pages) or informally (by unofficial Facebook student pages and groups) to fill in an online questionnaire, voluntarily and anonymously. A total of 1091 students reacted to the invitation. The whole questionnaire was self-completed by 489 of them (44.8%), 374 (76.5%) were women; mean age of the students 22.8 (SD=2.97), 22.6 (SD=2.84) for women and 23.4 (SD=3.28) for men. All grades and study levels were represented in the sample: 50.7% of students were in the first (bachelor level) of study, 38.9% of students were in the second (master) grade of study and 5.3% of the sample were PhD students. All regions of the Slovakia were represented in the sample as well.

3.2. Measures

Emigration intentions: were identified as a categorical variable, measured by the question: „Are you planning to leave Slovakia after completing university?" with possible answers: No, I am not planning to leave (1); I don´t know, I have not thought about it (2); I don´t know, I have not decided yet (3); Yes, I am planning to leave for a period up to 6 months (4); Yes, I am planning to leave for a period from 6 to 12 months (5); Yes, I am planning to leave for a period longer than a year (6); Yes, I am planning to leave for a period longer than 5 years (7); Yes, I am planning to leave permanently (8).

- In order to simplify the initial results for our planned comparisons, respondents were categorized into 4 categories based on responses to the emigration intention question: a) those who do not plan to leave Slovakia (they answered with 1); b) undecided (they answered with 2 or 3); c) planning a short-term departure (they answered with 4 or 5) and d) planning a long-term departure (they answered with 6, 7 or 8).

Perceived threat to financial living conditions: was defined by students' perception of the economic situation in Slovakia. Students were asked: „How do you feel about the development of Slovakia's economy over the next 10 years in the context of your professional career and perspective of starting your own family?" (1-very optimistic, 4-very pessimistic). A higher score indicates a higher level of PT.

Perceived benefits: were measured by students' evaluations of the importance of six factors attracting them to emigrate (1-not important at all; 5-very important), e.g. an opportunity to master the foreign language, an opportunity to gain a prestigious education abroad or an opportunity to have a better

career abroad. A higher overall score indicates a higher level of perception of emigration benefits. Cα = .8.

Perceived barriers: were measured by the students' evaluations of the importance of six factors repelling them from emigration (1-not important at all; 5-very important), e.g. strong relationships and commitments in Slovakia, expected difficulties with finding a job abroad, expected difficulties with learning a language or paid study abroad. A higher overall score indicates a higher level of perception of emigration barriers. Cα = .8.

Emigration self-efficacy: was measured by three items. The students were asked if they agree with the statements such as: If I wanted I could easily emigrate; I believe I would be able to handle the leaving (1-strongly disagree; 5-strongly agree). A higher overall score indicates a higher confidence about students' ability to successfully emigrate. Cα = .8.

Risk-taking: i.e. willingness to take risks was identified by the 10-item subscale of the DOSPERT questionnaire (Blais & Weber, 2006). The students evaluated their likelihood of engaging in different types of risk behaviour such as driving without seatbelts, giving in someone else's work for theirs, betting their daily income on horse racing, etc. (1-very unlikely; 7-very likely). An overall higher score indicates a higher willingness to engage in risk activities. Cα = .7.

General resilience: was measured by the 10-item scale CD-RISC (Connor & Davidson, 2003) assessing resilience as the capacity to quickly recover from difficulties, to adapt to changes and to cope with challenging situations. The respondents rated how often over the past month (1-never; 5-almost always) they had experienced feelings such as being able to adapt to change or managing to achieve goals despite obstacles. An overall higher score indicates a greater resilience. Cα = .8.

3.3. Statistical analyses

A multinominal regression analysis was applied. The reference category was a group of students planning a long-term departure from Slovakia (for more than one year or permanently).

4. Results

Regarding the concrete emigration plans, the highest number of students were those who had not decided yet (about 42%). Overall, about 36% of students plan to leave Slovakia for some time (short or long term). There is also a comparable proportion of students who do not plan to leave Slovakia (about 23%) and students planning a long-term emigration from Slovakia (about 24%). Although women do not plan to leave Slovakia more often than men and men plan long-term stays more often than women, these differences are not statistically significant. The emigration plans among Slovak university students with respect to gender can be seen in Table 1. Women perceive both the barriers and benefits of emigration as more important and are less confident about their ability to emigrate compared to men. Men are more willing to take risks. The descriptive characteristics in the measured variables and according to gender are represented in Table 2.

Table 1. Emigration plans among Slovak university students.

Emigration plan (number of response)	Among sample (n=489)	Among women (n=374)	Among men (n=115)
Not planning to leave (1)	110 (22.5%)	90 (24.1%)	20 (17.4%)
Undecided (2, 3)	203 (41.5%)	158 (42.2%)	45 (39.1%)
Planning short-term stay abroad (4, 5)	60 (12.3%)	47 (12.6%)	13 (11.3%)
Planning long-term stay abroad (6, 7, 8)	116 (23.7%)	79 (21.1%)	37 (32.2%)

Table 2. Descriptive characteristics in the measured variables and according to gender.

VARIABLE	Theoretical range	MEAN (Standard deviation)			T-test value
		Among sample (n=489)	Among men (n=115)	Among women (n=374)	
Perceived threat	1 – 4	2.76 (.67)	2.71 (.82)	2.78 (.61)	.782
Perceived benefits	6 – 30	24.43 (3.14)	23.76 (3.58)	24.63 (2.97)	2.39**
Perceived barriers	6 – 30	20.14 (4.78)	18.97 (4.63)	20.49 (4.77)	3.01**
Emigration self-efficacy	3 – 15	11.66 (2.63)	12.53 (2.21)	11.39 (2.69)	-4.59***
Risk-taking	10 – 70	34.87 (9.26)	37.32 (8.86)	34.12 (9.26)	-3.22**
General resilience	10 – 30	22.69 (3.12)	22.69 (2.3)	22.68 (3.17)	-.01

***p ≤ 0.001, **p ≤ 0.01, *p ≤ 0.05

Table 3. Factors related to emigration intentions among Slovak university students.

Group compared to the reference group∞	Factor	OR	95% CI	
			Lower bound	Upper bound
Not planning to leave at all	Perceived threat	.445**	.271	.731
	Perceived benefits	.866**	.778	.963
	Perceived barriers	1.195***	1.106	1.292
	Emigration self-efficacy	.605***	.510	.717
	Risk-taking	.927***	.892	.963
	Resilience	1.176**	1.054	1.313
Undecided	Perceived threat	.488**	.325	.734
	Perceived benefits	.933	.852	1.023
	Perceived barriers	1.138***	1.068	1.212
	Emigration self-efficacy	.655***	.561	.765
	Risk-taking	.961*	.931	.992
	Resilience	1.104*	1.007	1.211
Planning short-term departure (for less than 1 year)	Perceived threat	.501**	.303	.828
	Perceived benefits	.981	.875	1.101
	Perceived barriers	1.187***	1.098	1.283
	Emigration self-efficacy	.949	.781	1.153
	Risk-taking	.998	.961	1.036
	Resilience	1.042	.932	1.165

∞Group of students planning long-term leaving (for more than 1 year); OR – odds ratio, probability of chances; 95% CI – confidence interval (lower and upper bound); ***$p \leq 0.001$, **$p \leq 0.01$, *$p \leq 0.05$

The regression model adjusted for gender with perceived threat, perceived benefits, perceived barriers, and emigration self-efficacy, risk-taking and general resilience explained 36.7% of the variance in emigration intentions. It showed that those who plan a long-term stay abroad: 1) have a higher level of perceived threat, perceived benefits, self-efficacy and risk-taking and a lower level of perceived barriers and resilience when compared to those who don't plan to move at all; 2) differ in the same way from the undecided, with the exception of perceived benefits in which there is no difference; 3) have a higher level of perceived threat and lower level of perceived barriers when compared to those who plan a short-term stay. The relationships of the examined factors and emigration intentions regarding the preferred length of stay can be seen in Table 3.

5. Discussion

It was found that those intending a long-term stay abroad perceive the economic situation in Slovakia more pessimistically, evaluate the benefits of emigration as more important and barriers of emigration as less important and are more confident about their ability to successfully emigrate. Furthermore, they are more willing to engage in risk activities and less able to adapt to change than those who do not want to emigrate at all. These findings suggest that the application of the HBM in the study of emigration intentions is appropriate. Students planning a long-term stay abroad perceive the barriers of emigration (e.g the relationship commitments at home), as less important than other students. This was also the strongest predictor of intentions to stay among the six examined barriers. Significant social ties were found to be one of the strongest motivators for people wanting to stay in their country by many researchers (Sheikh et al., 2012; Mosneaga & Winther, 2013). Both the perceived benefits and barriers in our study included language as the potential intervening factor motivating students to leave or to stay in their country. Both of them significantly contributed to the explanation of emigration intentions. Young people may be motivated to migrate due to their interest in languages (Goldstein & Kim, 2006) although language can also be a limiting factor when students are afraid of not being capable of overcoming the language barriers (Mosneaga & Winther, 2013). Regarding emigration self-efficacy as individuals' belief about his/her ability to successfully emigrate, its significance has been confirmed in various phases of the migration process and in the phase of formation of intentions as well (Hoppe & Fujishiro, 2015, Aldwin et al., 2014).

Those who want to emigrate are more willing to take risks. This is in line with the finding about higher risk aversion decreasing the probability of emigration intentions (Nowotny, 2010). Van Dalen and Henkens (2012) also found that the willingness to seek new adventures and take risks is related to higher emigration intentions. Interestingly, we found that those intending to emigrate are less resilient. It can be hypothesized that less resilient people may be inclined towards emigration as to something promising the improvement of their conditions more than those who are more resilient and manage to handle daily

obstacles and difficulties more often. Emigration can appear as a relatively easily available solution for young people who fail to cope with their daily hassles at home. A lower level of resilience is also associated with a lower level of experiencing positive emotions (APA, 2017). This is in line with findings of Vuletic & Erdesi (2017) about a lower level of mental health and well-being being the predictors of emigration intention.

6. Conclusions

The findings have highlighted the different effect of some factors on emigration intentions depending on the preferred length of stay abroad. Those who plan to leave their country were found to be less resilient and more willing to take risks than those who did not plan to leave or were undecided about leaving. The findings support the contribution of the modified HBM in emigration intentions. This model can be further applied in the study of emigration intentions taking into account other potentially contributing psychological factors.

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I GOT A SOUL, BUT I AM NOT A SOLDIER: CHANGES IN YOUTH PROTESTOR'S DISCURSIVENESS IN BRAZIL

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Abstract

The paper highlights some anarchist ideals influences under the high school student social movement occurred in 2016 in Brazil. Organizing teams using horizontal arrangements, using collective decision process; operating with decentralized and autonomous networks, the "ocupas" (an expression used by the protesters to name the sit-ins at schools) renovated the repertoires of protest and denied common terms in which collective action was organized in Brazil. Stressing the fact that students refused being called as militants, and instead, they were terming themselves as activists, the paper draws attention to some crucial changes in the political subjectivity resulting from it.

Keywords: Psychology in politics, subjectivity, activism, social movements.

1. Introduction

Political Science, Sociology, Anthropology, Social Psychology, and other disciplines are working hard to understand the complexity of events situated in the field of social movements and collective action. Since June 2013, some crucial changes have happened in the way Brazilian collective action to contest social norms presents itself. Scrutinizing the meanings of the words "militância" and "ativismo", this research explores the hypothesis that militancy and activism are different methodologies to gather people engaged in collective action and social movements. The results achieved allow us to conclude that as strategies to trigger collective action, "militância" and "ativismo" can be related to socialist and anarchist political traditions respectively. In this paper, we are going to clarify the influences of anarchist ideas under the current Brazilian activists and debate briefly some subjective consequences of it.

2. Methodological Framework and procedures

This is a theoretical research which analyzes and interprets results achieved by a range of significant studies about collective action in Brazil. The procedure utilized to data collection was the literature review about social movements from 1980 to 2016, and the data were analyzed by the construction of an interpretative matrix which disclosed some meaning condensed in words "militância" and "ativismo". In this paper we are going to debate specifically the data related to the protests and collective action occurred since 2013 to now. The framework used to build the analytical model was Brazilian Social Institutionalist Psychology (BSIP) (Rossi & Passos, 2014) and the premises of Collectividual Dialectics from a Transformative Activist Stance proposed by Ann Stestkenko (2013). These two theoretical backgrounds share a subjectivity definition that combines individual and singular agency with historical and macro social process influences, going beyond the dualism of individual and social world. BSIP is going to illuminate the presence of anarchist ideas as core principles that modulates the manners of existence of young Brazilian activists. Stestkenko model is going to enlighten the process through which nowadays activities and deeds are producing the future.

Based on Vygotsky ideas about human development (Stetsenko, 2004), and stressing the limits of Cultural Historical Activity Theory (CHAT) Stetsenko (2013) calls attention to the active and collaborative role exercised by human activity in order not only to adapted itself to current norms but also to reinvent the *status quo* and, while doing this, creating the future humanity is going to live in. Emphasizing the fully relational and situated premises of CHAT, this approach assumes that "development and learning are collaborative achievements of activist nature not confined to adapting to what is 'given' in the world; instead, these processes are reliant upon individuals forming and carrying out their future-oriented agendas that contribute to collaborative projects of social transformation" (Stetsenko, 2013, p. 160).

According to Rene Lourau's definition (Lourau, 2007), institutions are transversal rationalities whose effects are visible in human behaviors. Their relations with the subjects are made through signs, meanings, and devices which encourage humans to act in a specific direction, or, otherwise, which inhibit human action. The encouraging-inhibitory function works not only through legal prescriptions, social organization rules, and behavioral norms but also building cognitive-affective models which frame what is possible to do, to think, or to feel in specific situations. This assumption is very beneficial to develop a Social Psychology once it accents the role exercised by culture and social relations in subjectivity production.

Schizoanalysis was built by Gilles Deleuze and Felix Guattari in France during the second half of the twenty century and stands for an ethic-aesthetic-politic paradigm whose aim is to elucidate the fundamental relations between the capitalist system of production, the production of desire, and the regimes of power exercises. Standing at this ideas, BSIP is concerned with the public, shared and collective dimension of subjectivity. The social institutional approach has developed analytical tools which go beyond the dualism between the conceptions of a subject as a self-centered and fully autonomous being, and other ones which understand it as entirely governed and settle by structures such as language, culture, historical process, and social norms (Deleuze, 1991). This field of Brazilian Social Psychology has been querying the essentialist conceptions of subject and claiming that the subjectification process is always a phenomenon which happens between the bodies.

From Michel Foucault studies, BSIP utilizes the notions of archeology and genealogy to investigate the historical and path dependent condition of human subjectivity. Archeological investigations analyzes the unconscious rules of formation which regulates the emergence of the regulations of discourses in human science. Genealogical studies explicits the necessary relation between a regime of truth production and a particular technology of power embodied in social practices. "Archeology proceeds along the truth axis, analyzing discursive conditions of existence. Genealogy travels the power axis, examining culturally true discourses' insertion into institutional and other no discursive practices" (Mahon, 1992 p.105). Brazilian Social Institutional Psychology (BSIP) joins these ideas and concepts to build a framework in which researching subjectivity means identifying the limits of a unique force map, examining in detail where these forces came from to understand the kind of form produced by this map. BSIP is trying to understand the subjectivity looking for forces, movements, intentions and historical facts which produce specific modes of existence.

By clarifying the influences of anarchist ideas under young Brazilian activists, this work aims to contribute to the understanding of forces creating the manners through which young protesters feel, act and think about collective action

3. The case

The 'Movimento Passe Livre' (MPL), a crucial actor in the protest cycle triggered in Brazil in June of 2013 constructed its symbolical coherence by criticizing the militants itself, the militant's organizations and the militant engagement (MPL, 2013). It has also chosen to use the word 'ativismo' and 'ativista' to term its actions and its members, respectively.

Some distinguishable characteristics of the key players from the Cycle started in June 2013 were: a) young actors living in big cities; b) democratic appeal exhibited with decentralized organizational arrangements and preference for collective decision-making processes; c) independence from political parties, churches, and trade unions; d) primarily concerned with local issues and problems of everyday life; e) mobilization of the participants using new technologies of communication and information; f) explicit collaboration with other movements in different cities in the country and also in other countries (Navarro & Brasilino, 2015). "These principles uncover the influences of autonomist, anarchist, Zapatista, and anti-globalization discourses, merged with a widespread disillusionment about political parties and political institutions" (Saraiva, 2014, p.43).

During November of 2015 in the state of São Paulo, another social movement resembling MPL's autonomist characteristics made an appearance. Once again, the movement was set in motion by young actors residing in big cities; the organizational arrangements were decentralized; trade unions, political parties, and even student's unions were not essential allies; and technologic communication devices were used to coordinate the actions.The denial of centralized engagement models and organizational arrangements like the ones in trade unions, academic student's directories, and other traditional left-wing social organizations, as well as the investment in participants' emotional experiences, artistic exhibitions, and direct action has been increasing in Brazil's contestation scene since 2013.

The sit-in was the most commonly used performance of social defiance during the turbulent year of 2016 in Brazil. According to a text published in the newspaper 'Corrreio Braziliense', on October 26 of 2016 there were 1,108 educational institutions occupied. The sit-ins were a protest against the federal

government's proposition of Provisory Act 746,which would promote a substantial change in the high school curriculum; and also against the Constitutional Amendment 241, which would limit federal public investments for the next 20 years. Even though the legislative changes proposed by the federal government have been approved, the occupations themselves and the way in which they were enacted indicate changes in the usual manners of social mobilization and youth agitation to collective action in the Brazilian context.

Most of analyses made about this increases underline the influences of anarchist guidelines and libertarian ideas as a prominent inspiration to this movements. Alonso and Mische (2017) emphasize that the autonomists' influence was extended to protests worldwide since Seattle's events in 1999. This tendency was also present in the Global Justice Movement and in the Arab Spring. The authors highlight the autonomist influence as being the main novelty of the Brazilian protest movements between 2013 and 2017.

4. What's the novelty at all?

Even if it is not an easy task to define the core ground of all anarchist theories, it is possible to identify the influences of this political tradition in values and actions like "solidarity, de-alienation, speaking out, dialogue, non-utility, utopia, dreams, fantasies, community, association, anti authoritarianism, self-management, direct democracy, equality, self-representation, fraternity and self-defence" (Bourg, 2007, p. 7).

Regarding brazilian's case, the autonomous influences contrasts with the canonical left wing heteronomous way of triggering collective action (Sales, Fontes, Yasui, Forthcoming). The most common practices in collective action and social movements in Brazil tends to valorize discipline, submission, observance to rigid and hierarchic rules and docility. All these made in the name of whatever the objective the group wants to achieve. By using anarchist principles the young activists are expanding the limits of their political imaginations and are building alternatives to the degraded and worn-out institutional representation ways of dealing with political issues.

When they work hard to govern and coordinate themselves by using the same principles and values that they are demanding to society, they are contesting the *status quo* and moving from demand to direct action. They are actively producing the world they are fighting for and changing, in a local level, the social norms they are contesting. As stressed out by Graber (2002), there is no gap between the ideology of the movement and its form or organizational principles, and this is certainly one of the most significant novelty that has happened since 2013.

Analyzing this novelty using Stetsenko framework is possible to point out that as the young brazilian activists are determined, and determining, by the cultural situated activities they collectively develop during everyday life, they are not only expressing the inseparability of theoretical and practical dimension of human activity, but they are also reinventing themselves while constructing the future in the present. The young activists devotion to their core values and their concerns for changing the organizational arrangements through which they fight, evince that "human acting is contingent on individuals committing to a certain version of the future and, most importantly, 'always already' gradually creating this future through actions in the present" (Stetsenko, 2013, p. 18). Changing the organizational modes of collective action, these young activists are not waiting for a future that may one day come, but are actually using their best efforts to bring this future into reality right now.

5. Conclusion

Brazil Social and Institutional Psychology provides the mandatory analytical tools in order to understand how we, as human beings, have become what we are now. Using this framework, we are able to investigate and theorize about how historical conditions have provided anchor points to the current shapes of our subjectivity. In order turn, Stetsenko ideas underlines in the present which are the lines through which the future is being built. Combining these two approaches in order to reply Michel Foucault's question about what are we doing with ourselves creates a productive field of research and investigations about the role exercised by human agency in subjectivity and in the production of reality. We hope this paper points it out and we look forward for more studies concerned with theses issues.

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IRRATIONAL BELIEFS AT WORK MEDIATE THE ASSOCIATION BETWEEN PERFECTIONISM AND WORKAHOLISM

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Abstract

Workaholism, the tendency to work excessively hard on a compulsive basis, is a type of heavy work investment that is mainly associated with negative outcomes for both the worker and the organization, including psychological and physical symptoms, sickness absences, and lower job performance. Hence, in terms of prevention, it seems important to identify situational and personal factors that may lead to the onset of workaholism. Among the latter, several studies showed that perfectionism, a stable individual disposition to consider not acceptable anything that is not perfect, is strongly associated with workaholism. However, previous research did not consider mechanisms that could explain this association. In this perspective, irrational beliefs at work (IBW), that is, illogical and rigid cognitions related to unrealistic demands about the self and other people in the work context, may mediate the association between perfectionism and workaholism. Accordingly, in this study we investigated the possible mediating role of four specific IBW, concerning performance demands, coworkers' approval, failure, and control, in the relationship between perfectionism and workaholism. The study was conducted on 257 workers from a company in the industrial sector, who completed a self-report questionnaire aimed at determining workaholism (i.e., working excessively and working compulsively), irrational beliefs at work, and two dimensions of perfectionism, namely self-oriented perfectionism (SOP) and socially prescribed perfectionism (SPP). Data were analyzed using structural equation modeling with latent variables. With respect to the relationship between perfectionism and IWB, results showed that SOP was positively associated with performance demands, whereas SPP was positively associated with performance demands, coworkers' approval, failure, and control. Moreover, performance demands and failure were positively associated with workaholism, controlling for the effect of both SOP and SPP. Finally, the test of indirect effects showed that performance demands mediated the association between perfectionism (both SOP and SPP) and workaholism, whereas failure mediated the association between SPP (but not SOP) and workaholism. From a theoretical perspective, this study showed that individuals with high levels of perfectionism tend to endorse irrational beliefs concerning the pursuit of exceedingly high standards of performance and the fear of failure that, in their turn, may be a risk factor for workaholism. Finally, from a practical standpoint, this study suggests that interventions aimed at preventing workaholism should help workers with high levels of perfectionism to reduce irrational beliefs at work (especially the ones related to performance demands and failure) in favor of more functional rational beliefs.

Keywords: Workaholism, irrational beliefs at work, self-oriented perfectionism, socially prescribed perfectionism, mediating effect.

1. Introduction

Workaholism may be seen as "the tendency to work excessively hard in a compulsive way" (Schaufeli, Taris, & Bakker, 2008, p. 204). Accordingly, workaholism is characterized by high levels of both working excessively (i.e., dedicating an extraordinary amount of time and energy to work) and working compulsively (i.e., persistently thinking about work, even when not working), the behavioral and cognitive dimension of workaholism, respectively (Schaufeli, Bakker, van der Heijden, & Prins, 2009). Workaholism is mainly associated with negative outcomes for both the worker and the organization, including psychological and physical symptoms, sickness absenteeism and presenteeism, lower job performance, and sleep problems (Falco et al., 2013; Girardi et al., 2015; Salanova et al., 2016). Hence, in

terms of prevention, it seems important to identify situational and personal factors that may lead to the onset of workaholism.

Among the latter, perfectionism has received considerable attention. Perfectionism is a multidimensional individual disposition that involves setting and striving for exceedingly high and often unrealistic standards of performance, accompanied by overly critical evaluations of one's own behavior (Frost, Marten, Lahart, & Rosenblate, 1990). Hewitt and Flett (1991) described three distinct dimensions of perfectionism, namely self-oriented perfectionism (i.e., setting exceedingly high standards for oneself; SOP), other-oriented perfectionism (i.e., setting exceedingly high standards for other people; OOP), and socially prescribed perfectionism (i.e., the perception of unrealistically high standards being imposed by significant others; SPP). Previous research has shown that both SOP and SPP are positively associated with workaholism (Falco, Piccirelli, Girardi, Di Sipio, & De Carlo, 2014; Falco et al., 2017; Taris, Van Beek, & Schaufeli, 2010), but mechanisms that could explain this relationship were not fully considered (although with some exception; Falco et al., 2017; Stoeber, Davis, & Townley, 2013).

In this perspective, irrational beliefs at work (IBW), that is, illogical and rigid cognitions related to unrealistic demands about the self and other people in the work context, may mediate the association between perfectionism and workaholism. Indeed, previous studies showed that individuals with high levels of perfectionism tend to endorse several irrational beliefs (Flett, Hewitt, & Cheng, 2008), which may play a central role in the onset of workaholism (Burwell & Chen, 2002). Moreover, Van Wijhe, Peeters, and Schaufeli (2013) described four specific work-related irrational beliefs, namely performance demands, coworkers' approval, failure, and control. The authors showed that IBW related to performance demands and failure were positively associated with workaholism in a structural regression model using latent variables, and these results were partially replicated in a recent study by Falco et al. (2017).

2. Objectives

Accordingly, in this study we investigated the possible mediating role of irrational beliefs at work in the relationship between perfectionism and workaholism. More specifically, we expect perfectionism (i.e., SOP and SPP) to be positively associated with irrational beliefs at work (concerning performance demands, coworkers' approval, failure, and control) that, in their turn, are positively associated with workaholism.

3. Methods

The study was conducted among workers from a company in the industrial sector ($N = 257$). Participants completed a self-report questionnaire aimed at determining workaholism, irrational beliefs at work, and perfectionism. The questionnaire was administered anonymously (paper and pencil), and workers participated voluntarily in the study.

3.1. Measures

To assess the constructs under investigation, the following self-report measures were administered.

Workaholism was assessed using the Italian adaptation (Kravina, Falco, Girardi, & De Carlo, 2010) of the Dutch Workaholism Scale (DUWAS; Schaufeli et al., 2008). The scale includes ten items aimed at determining the two dimensions of working excessively (five items; Cronbach's alpha was .76) and working compulsively (five items; α was .71). The response scale ranged from 1 (*strongly disagree*) to 6 (*strongly agree*).

Irrational beliefs at work were assessed using the Work-related Irrational Beliefs Questionnaire (WIB-Q; Van Wijhe et al., 2013) in the Italian adaptation (Falco et al., 2017). The scale contains 13 items and measures four types of work-related irrational beliefs, namely performance demands (three items; α was .74), coworkers' approval (four items; α was .84), failure (three items; α was .82), and control (three items; α was .86). The response scale ranged from 1 (*strongly disagree*) to 5 (*strongly agree*).

Perfectionism was assessed using an Italian adaptation (Falco et al., 2014) of a short version of the Multidimensional Perfectionism Scale (HMPS; Hewitt & Flett, 1991). The scale includes seven items, designed to detect the self-oriented perfectionism (three items; α was .84) and socially prescribed perfectionism (four items; α was .72). The response scale ranged from 1 (*strongly disagree*) to 6 (*strongly agree*).

3.2. Data analysis

To test the hypothesized relationships between perfectionism, irrational beliefs at work, and workaholism, a structural equation model (SEM) with latent variables was estimated using LISREL 8.80 (Jöreskog & Sörbom, 2006). To test the significance of the indirect effects of perfectionism on workaholism through irrational beliefs at work (i.e., mediation) the Sobel test was used (MacKinnon, 2008). Moreover, prior to estimating the structural model, a confirmatory factor analysis (CFA) was carried out to evaluate the psychometric properties of the self-report questionnaires. To evaluate the goodness-of-fit of the models tested, the χ^2 test was considered, as well as two additional fit indices, namely RMSEA and SRMR, for which values close to or smaller than .08 indicate an acceptable fit (Brown, 2015).

4. Results

The CFA showed an acceptable fit to data, $\chi^2(377) = 847.28$, $p < .01$; RMSEA = .07, SRMR = .08. Overall, all items loaded substantially on their respective factor (median standardized factor loading of .70), and correlations between latent factors were lower than .75. Hence, the scales showed satisfactory convergent and discriminant validity. Moreover, the structural model showed an acceptable fit to data, $\chi^2(188) = 444.11$, $p < .01$; RMSEA = .07, SRMR = .07. In this model, SOP was positively associated with performance demands ($\beta = .38$, $p < .001$), whereas SPP was positively associated with performance demands ($\beta = .46$, $p < .001$), coworkers' approval ($\beta = .25$, $p < .01$), failure ($\beta = .46$, $p < .001$), and control ($\beta = .29$, $p < .01$). Moreover, performance demands ($\beta = .41$, $p < .01$) and failure ($\beta = .31$, $p < .001$) were positively associated with workaholism, controlling for the effect of both SOP and SPP. Finally, the test of indirect effects showed that performance demands mediated the association between SOP and workaholism ($z = 2.47$, $p < .05$), as well as the association between SPP and workaholism ($z = 2.40$, $p < .05$), whereas failure mediated the association between SPP (but not SOP) and workaholism ($z = 2.77$, $p < .05$).

5. Discussion

This study examined the mediating role of irrational beliefs at work in the relationship between perfectionism and workaholism. Our results showed that self-oriented perfectionism was positively associated with irrational beliefs at work concerning performance demands, whereas socially prescribed perfectionism was positively associated with IBW related to performance demands, coworkers' approval, failure, and control. Furthermore, irrational beliefs concerning performance demands and failure were positively associated with workaholism. Hence, performance demands mediated the association between the two dimensions of perfectionism and workaholism, whereas failure mediated the association between socially prescribed (but not self-oriented) perfectionism and workaholism.

From a theoretical perspective, this study showed that individuals with high levels of perfectionism tend to endorse irrational beliefs concerning the pursuit of exceedingly high standards of performance and the fear of failure that, in their turn, may be a risk factor for workaholism. Finally, we believe the results of this study to have relevant practical implications. Indeed, interventions aimed at preventing workaholism should help workers with high levels of perfectionism to actively restructure their irrational beliefs at work (especially the ones related to performance demands and failure) in favor of more functional rational beliefs.

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WHY THEY STILL FIGHT LIKE THIS? ARCHEOLOGICAL NOTES ABOUT "MILITANTES" AND THEIR SUBJECTIVITIES

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Abstract

Using Michel Foucault's archaeological and genealogical tools, we reviewed texts, discourses, and practices developed under the planning and execution of the Russian Revolution. The main point is to explicit how this event plays a crucial role in the current subjectivation process of some protestors and social movement participants in Brazil. The analyzed data stress three anchor points to the understanding of militant subjectification process: a) Government democratic centralism; b) economic Stakhanovism e c) cultural Zhdanovism. We concluded that it is possible to establish a relation between soviet dictatorship practices at the beginning of the twentieth century, and the rigid ways of feeling, thinking and acting of many contemporary subjects while they militate to change social norms.

Keywords: *Psychology in politics, subjectivity, militancy, social movements.*

1. Introduction

Since June 2013, some crucial changes have happened in the way Brazilian collective action to contest social norms presents itself. Scrutinizing the meanings of the words "militância" and "ativismo," this research explores the hypothesis that militancy and activism are different methodologies to gather people engaged in collective action, and that they can be related to socialist and anarchist political traditions respectively. In this paper, we are going to talk about "militância" by pointing out some events occurred that took place in Union of Soviet Socialist Republics (USSR). By doing this, we intend to explicit how these events still work as anchor points to the rigid ways of feeling, thinking and acting of many contemporary subjects who militate to change social norms.

2. Methodological framework and procedures

This is a theoretical research which analyzes and interprets results achieved by a range of significant studies about collective action in Brazil from 1980 to 2015 and also examines documents, papers and historical facts that took place in the USSR from 1914 to 1957. Brazilian studies about social movements and collective action provide the basis to characterize the "militante". Data from the Soviet Union provided insight about experiences underpinning "militante" identity. The framework used to build the analytical model was Brazilian Social Institutionalist Psychology (BSIP) (Rossi & Passos, 2014).

Schizoanalysis was proposed by Gilles Deleuze and Felix Guattari and it stands for an ethic-aesthetic-politic paradigm whose aim is to elucidate the fundamental relations between the capitalist system of production, the production of desire, and the regimes of power exercises. In close connection with the Schyzoanalytical framework, BSIP is concerned with the public, shared and collective dimension of subjectivity. BSIP approach has developed analytical tools that challenge the dualism between conceptions of the subject either as a self-centered and fully autonomous being, or as entirely governed and determined by structures such as language, culture, historical process and social norms. This field of Brazilian Social Institutionalist Psychology has been querying the essentialist conceptions of subject and claiming that the subjectification process is a phenomenon which happens between the bodies.

From Michel Foucault studies, BSIP employs the notions of archeology and genealogy to investigate the historical and path-dependent condition of human subjectivity. Archaeological investigations analyze the unconscious rules involved in the emergence of regulation discourses in human sciences. Genealogical studies explicit the necessary relationship between a regime of truth production and a particular technology of power embodied in social practices. "Archeology proceeds along the truth

axis, analyzing discursive conditions of existence. Genealogy travels the power axis, examining culturally true discourses' insertion into institutional and other no discursive practices" (Mahon, 1992 p.105).

Brazilian Social Institutional Psychology combine these ideas and concepts to build a framework in which the research of subjectivity involves the thorough examination of forces, movements, intentions and historical facts in order to create a better understanding of how these elements produce specific modes of existence. In that spirit we have scrutinized the history of Soviet Union from 1917 to 1957 looking for facts, papers, documents, political decisions, habits and concerns, which could be related to the rigid ways of being of Brazilian "militantes".

3. The Brazilian "militante"

The word "militante" as well as it's derivations "militância" and "militar" are frequent expressions in left wing Brazilian political parties discourses, in students movement speeches and even in papers from Brazilian Social Movement scholars. Reviewing and analysing the papers from Sociology of Social Movements and from Political Science journals published in Brazil between 1980 and 2015, the words appear frequently. However, there is not much concern in conceptualizing them (Sales, Fontes, Yasui, Forthcoming). What do we mean when we talk about "militante"?

In Brazil, the "militante" could be described as someone who is articulate, has strong and clear views, and has the ability to talk others into their own beliefs. The "militante" may also be seen as one who does not get out of character and is, at all times, defending the causes of their militancy. This exaggerated picture may well be why we generally think of militants as boring and annoying. Furthermore, militant persons are often portrayed as forceful, and in movies and songs appear as people who would die before denying their own beliefs.

Analyzing the relations between identity formation and commitment of militant persons, Naujorks e Silva (2016) conclude that "the militant identity uses the identity match as feedstock and the interpretative frames as the substance which give meaning to militant identity itself"(Naujorks e Silva, 2016, p. 148)[1]. This identity match includes a collective dimension, related to the ideas, principles and values shared with other militants; and also an individual one related to the manners through which these principles and values are used as models and life guides to be followed by the militants. Evaluating the role exercised by this rigid identity match, Rolnik (2014) argues that this rigidness works as a power force because it sponsors the militant in the place of a conscious and aware person able to work properly in the direction of the cause he fights for. Another function of the identity match is to recognize the ones who do not share his beliefs as enemies, as people who need to be combatted or saved.

Understanding how some force vectors have shaped our subjectivity can be useful to comprehend the reasons why militant persons fight like they do. In this work, we are going to propose genealogically some anchor points in which militant subjectivity is underpinned. Proceeding like this "I make no claim to be producing an objectively correct or universally valuable narrative. Rather, I want to track an emergence that I find interesting and compelling due to my own ethico-political commitments and theoretical interests" (Day, 2004, p.720).

4. The anchor points

A historical study carried out by Macedo and Silva (2009) concluded that regarding political militancy, the Communist Militant is the perfect embodiment of an ideal militant. The results achieved by Valverde (1986) in a genealogical investigation about these issues not only stand for this conclusion but also point out the relevance of theories, ideas, and facts that took place in the Soviet Union from 1914 to 1980 as crucial to understand the construction of militancy and militants.

The USSR, by expanding socialist ideas, values and principles, and by fighting against capitalist social norms, has exported a theoretical background and a methodology to contest social norms grounded in ideas of Karl Marx, Vladimir Ilyich Ulyanov (Lenin), and Josef Stalin. These exported principles have created some tactical aims, contestation repertoires, and fighting tools which have been acquired by nonconformists all over the world (Hobsbawm, 1995, 2011). To this day, protests and social movements find themselves influenced by these ideas. Building on the concepts mentioned above, we examined the USSR experience to better understand the militant subjectification process. In doing so, we reveal significant forces that have shaped the ways of thinking, feeling and acting in current Brazilian militancy. Hence, we employed the following criteria to determine the forces at stake: the role they have in preserving the Communist Party governability; the extension they have reached in influencing day life

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All translations from Portuguese papers were made by the authors.

activities in USSR; and, finally, their role in producing the will for a communist way of life: "ruled, guided, and corrected by the critical thought" (Trótsky, 2007, p.178).

The socialist experience in USSR had Marxist-Leninist tradition as its scientific and theoretical background. In this framework, the Party was elected as a means to centralize power, to rule behaviors and to govern proletarians' wills and wishes. One of the most important duties of this war machine was to produce the revolutionary will in the masses. Lenin is fairly clear about this: "By educating the workers' party, Marxism educates the vanguard of the proletariat, capable of assuming power and leading the whole people to socialism, of directing and organizing the new system, of being the teacher, the guide, the leader of all the working and exploited people in organizing their social life without the bourgeoisie and against the bourgeoisie" (Lenin, 1918, s/n). In light of the above, this paper argues that militant subjectivity has its anchor points in: a) government democratic centralism; b) economic Stakhanovism and c) cultural Zhdanovism. In the following lines we will describe summarily each one of them.

In a text written on April of 1918, in which he lists the immediate tasks of Soviet Government, Lenin summarizes his ideas about how to act in order to build a communist society: "unquestioning subordination to a single will is absolutely necessary for the success of processes organised on the pattern of large-scale machine industry" (Lenin, 1918, s/n). Figueirêdo (1993) considers the issues about will a crucial point related to the militant subjectivity. "The common ground between distinct militancies is a concern about the will. De-alienating the will and/or raising the will? Commanding the will and/or interpreting it?" (Figueirêdo, 1993, p. 211).

Analyzing "The Russian Social-Democratic Party and its Immediate Tasks" (Stalin, 1901) and "What should be done?"(Lenin, 1902), Sevè (1999) explains that democratic centralism was the solution to the organization of peasant masses problem. It was produced once the Party leaders realized a "radical incompatibility between the proletarian revolution as a strategic goal and the spontaneity as an organizational methodology" (Séve, 1999, p. 63). Either a democratic or an autocratic version of it, this technology of power aims to mobilize the Russian population, win the State-power in order to establish the proletarian dictatorship and, then, make communism possible. The proletarian masses must be governed with rigor, because unity and homogeneity are critical conditions to achieve victory. One should never forget that this kind of governability is also a war strategy to fight against the capitalist system, and during a war, there is no room for dissident soldiers.

Freethinkers, workers coalitions not subordinated to the Communist Party and any individual needs were framed by party leaders as manifestations of the enemy power, as traps from capitalistic norms or remaining vestiges from the bourgeois culture which must be extinct. These traps were but barriers to the time when each and everyone one would receive what they want according to their needs. Nevertheless, a most important obstacle in satisfying everyone's needs was Russian precarious industrial productive system.

Before October Revolution, Russia's economy was primarily based on agricultural goods. Moving this into a robust industrial economy and improving economic increases significantly to create an environment favorable to full human development was another essential condition to establish a Communist System. At that time moment, in industrial modern cities in the Capitalist world, Frederick Winslow Taylor's ideas to manage work scientifically are being spread. Moved by the urgency to make USSR great again, combating the deleterious consequences of wars, hunger and cold, Lenin, Stalin and the Party Central Committee created a red Taylorism: the Stakhanovism.

Stakhanovism was a movement aiming to enhance work and workers productivity. Although the movement supposedly developed among workers, it was quickly recognized, improved and spread by Central Committee. The principles shared with Taylor's scientific management were: constant vigilance under the workers; scientific logic, rationality and efficiency in the labor organization; standardization of labor routines, awardee of the best workers and financial payment proportional to item produced. It was first implemented in the coal industry. Once it has been adopted as a central tool to New Economic Politic, it was disseminated to transport sector and also agricultural activities. Despite Lenin's critical views of Taylorism expressed in "The Taylor System—Man's Enslavement by the Machine" (Lenin, 1914), some members of Soviet *intelligentsia* conceived Stakhanovism as their best option to transform USSR into a prominent industrial nation. Aleksei Gastev, creator, and director of Central Institute of Labour at that time, supported the idea of using an orthodox Taylorism not only in labor activities but also in other realms of human life. Gastev "suggests that these principles and ideas should be used to construct social norms and Public policies covering all fields of human life of human life, as studies, leisure and even the most essential and basic activities" (Miguel, 2006, p.3).

During his speech at First All-Union Conference of Stakhanovites on 17 November 1935, Stalin states right and clear the relevance of Stakhanovism for proceeding into Communist Society.

The significance of the Stakhanov movement lies in the fact that it is a movement which is smashing the old technical standards, because they are inadequate, which in a number of cases is

surpassing the productivity of labour of the foremost capitalist countries, and is thus creating the practical possibility of further consolidating Socialism in our country, the possibility of converting our country into the most prosperous of all countries. (...) Its significance also lies in the fact that it is preparing the conditions for the transition from Socialism to Communism (Stalin, 1935, s/n).

Ruled by Stakhanovites principles: a) the labors started to be organized according to a precise topography; b) work and workers began to be continuously supervised and meticulously inspected; c) work activities were now ruled by the most advanced bourgeois science; and d) the trade unions became part of police governmental apparatus. As it may be more evident by now, due to the importance of increasing productivity, labor activities in USSR were organized into a rigorous disciplinary power exercise (Foucault, 2005). Beyond material goods, Stakhanovism principles were also trying to produce the Soviet worker as a compliant, subservient and engaged citizen able to give his best efforts to bring Communism into reality. In order to disseminate communist values, the Party also made its presence felt in the cultural sphere.

In 1905, while writing about the Party's literature, Lenin classified this literature as a powerful tool to be used in the fight against bourgeois habits and traditions. "Literature must become part of the common cause of the proletariat, 'a cog and a screw' of one single great Social-Democratic mechanism set in motion by the entire politically-conscious vanguard of the entire working class (Lenin, 1905, S/N). According to Lenin's ideas, Literature must be developed as part of the Party's work. These ideas reverberate in the speech by Andrei Alexandrovich Zhdanov in the opening section of the First Soviet Writers Congress in 1934. This event reinforced the core ground in which artistic manifestation should be created in the USSR.

The task prescribed to soviet art was eradicating every single vestige or influence of bourgeois culture over proletarian culture. Zhdanov's model conceived all forms of art as educational and pedagogical tools which should be used to spread the Party's ideas and to produce the revolutionary conscience. Zhdanov viewed artists as engineers of human soul and, in a speech made in 1934, he summarized the premises and principles of socialist realism:

We say that socialist realism is the basic method of Soviet belles lettres and literary criticism, and this presupposes that revolutionary romanticism should enter into literary creation as a component part, for the whole life of our Party, the whole life of the working class and its struggle consist in a combination of the most stern and sober practical work with a supreme spirit of heroic deeds and magnificent future prospects. (Zhdanov, 1934, s/n).

The socialist realism's role was inspiring men and women to fight for a communist future. The speech stresses the magnitude of achievements under the Communist Party's leadership and the moral values and beliefs every citizen should pursue. Under this guidance, any individual, sentimental or poetic expression in literature was valued as petty bourgeois, and again, as an obstacle to revolutionary success. In the field of visual arts, this guideline resulted in big panels and posters boards praising Stalin accomplishments. These productions were created using images from Soviet day life activities, painted using pleasant colors, eliciting identification, pride, and hope in most of the viewers.

5. Conclusions

This research, proceeding archaeologically and genealogically (Foucault, 1989), aimed to explore and explicit meanings, values, procedures, and beliefs that connect the USSR experience with some practices in left-wing social movements and collective action. Much of the criticism made by Brazilian current social movements to the traditional social movements and trade unions are concerned with the excess or rigidity in organizational procedures, the lack of space for divergent opinions; the use of organizational arrangements akim to military forces; the preference for hierarchical organizational arrangements and the power and importance attributed to movement leaders.

The results from this historical investigation improve our understanding about the roots of some preferences for disciplinary, militarized, unified and centralized organizational procedures that characterize the way people in trade unions, academic student's directories, and other left-wing social organizations in Brazil usually behave. If we consider the fact that most of Brazilian left wing political movements were deeply influenced by soviet ideas, it is possible to point out the resonance of facts that took place in USSR in the construction and development of some subjective characteristic of Brazilian militants. That being the case, centralism, Stakhanovism and Zhdanovism work as anchor points to "militante" subjectification processes.

Understanding subjectivity as something shaped by historical facts, cultural traditions and strictly related to a regime of power exercise, we argue that Brazilian militants keep reproducing values, principles and beliefs that were fundamentals in USSR experience and, by doing this, they are still being

disciplined, ruled and shaped in similar ways that people in USSR were. This is the reason why Brazilian "militantes" behave themselves in the way they do.

We have no intention of providing the last word about this theme; in fact, we look forward for more studies concerned with these issues, once we believe that "if our approach to the theme is not enough to catch all the complexity involved on it, the merit of this point of view is to allow an extensive understanding which can be used as a starting point to distinct analyses (Figueiredo, 1995, p.41).

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IMPORTANCE OF VALUE REALIZATION IN DETERMINING SATISFACTION WITH LIFE AND WITH HEALTH

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Abstract

Previous research pointed to three dimensions of P-E Fit – satisfaction of needs, expressions of self-identity, and realization of values – as important determinants of satisfaction with, and commitment to, life in organizations. However, the latter two dimensions of P-E fit do not get their deserved position in research as contributors to general life satisfaction and to health. I investigate, by way of multiple regression analyses, the relative importance of each of these P-E dimensions as determinants of satisfaction with life, and with one's health. This is a secondary analysis of data from about 100 residents of kibbutzim. A questionnaire measured general life satisfaction and satisfaction with health as dependent variables. Predictors were: extent of P-E fit on several indices of the three dimensions. Of the three P-E fit dimensions only extent of values' realization as predictors entered the formulas of multiple regressions (in addition to demographic characteristics). I discuss interpretations of the findings – in particular, why other P-E fit dimensions did not enter the regression formulas.

Keywords: P-E Fit, life satisfaction, health satisfaction, value realization, kibbutzim.

1. Introduction

Previous research (e.g. Leviatan, 2013; Bahat and Leviatan, 2016; Shamir, 1990; Leviatan, 2003) pointed to three dimensions of P-E Fit (Person- Environment Fit) – satisfaction of needs, expressions of self-identities, and realization of values – as important determinants of satisfaction with, and commitment to, life in organizations. However, the latter two dimensions of P-E fit do not get their deserved position in research as contributors to general life satisfaction and to health. This is odd because the claim that realization of one's values being among the strongest determinants of human behavior and attitudes, was stated already many years ago (e.g. Hofstede, 1980, 2001; Rokeach, 1973; Schwartz, 1992). Similar is the case of expressions of self-identities – research has shown that individuals strive to express themselves and get recognition for whom they consider themselves to be (Kelman, 2006; Snyder & Ickes, 1985; Waterman et al, 2003). Thus, one would expect that degree of realization of one's values and extent of opportunities given to expression of one's self-identities would be even a stronger predictor than level of needs satisfaction in determining general attitudes to personal outcomes such as satisfaction with life and satisfaction with one's health. Yet there is very little research, if at all, that investigates these suppositions,

In this study, I test for the relative importance of each of these three P-E fit dimensions as determinants of *satisfaction with life*, and of *satisfaction with one's health.*

2. Methods

This is a secondary analysis of data from a sample of about 100 residents of six kibbutzim.

A questionnaire measured general life satisfaction and satisfaction with health as dependent variables. Predictors were: extent of P-E fit on several indices of the three dimensions.

The measures used in this study were composed of responses to questions that were combined into indices that resulted from factor analyses or, for questions that did not enter any of the factors, as single items (most questions were responded on scales so that 1=least positive; 5=most; in some items the scales were reversed):

Satisfaction with one's life was measured by three questions: "to what extent are you satisfied with your life now?"; "to what extent are you satisfied with your life on the kibbutz where you live?" "To

what extent are you currently satisfied with your life compared to what it was five years ago?" (Scales reversed; alpha=.71).

Satisfaction with one's health was measured by an index composed of three questions: "to what extent are you satisfied with your health today"; "what is your health now compared to five years ago"; "how would you define your health level compared to that of your age group" (Alpha=.71).

P-E fit of needs (extent of satisfaction of one's needs at life) were gauged by two indices and one single question. *Satisfaction of lower needs* (with physical conditions; material rewards and money; alpha=.72). *Satisfaction of higher needs* (with achievement as a result of your action; esteem from your colleagues; opportunities for personal development; contribution to your social standing; potential for development; influence on what happens in kibbutz; utilization of your skills, experience and knowledge. Alpha=.87.). In addition, a single item – *satisfaction with Social relations*.

Two indices and two single items gauged P-E fit of values (extent to which life allows realization of one's values): *Social significance* (social solidarity; spiritual life; social belonging; social stability; significance in life; behavior according to principles; creativity; respect for tradition; esteem by others; Alpha=.90). *Contribution to society* (security of family; being a pioneer; having authority; social justice; contribution to society; Alpha=.86). *Freedom of thought and deed*. *Being rich*.

Four indices gauged P-E fit of self-identities (extent of expressions of self-identities). *A Person of influence* (a professional; taking charge; a team player; intelligent; holder of social ideals; a person with influence; Alpha=.87). *A task oriented person* (being creative, being successful; adventure seeking; competitive; Alpha=.82). *Being responsible* (having responsibility for family; being diligent; Alpha=.67). *Being young and active* (being young; being adventurous; Alpha=.54).

In addition to these variables, we also asked respondents about their age (year born), gender, level of education (four categories), and self-evaluation of their socioeconomic status (five categories, 1=highest).

3. Findings

Table 1 presents descriptive statistics of all variables and the simple correlations of the indices of *Satisfaction with life*, *satisfaction with health* and the variables depicting levels of satisfaction of needs; levels of realization of values, levels of expression of self-identities, and the demographic characteristics.

Table 1. Simple correlations (Pearson's), Means and SDs of variables depicting demographic characteristics, levels of needs' satisfaction, levels of values' realization and levels of expressions of self-identities with "satisfaction with life" and with "satisfaction with one's health". (N is about 100).

	Satisfaction with health (5=highest)	Satisfaction with life (1=highest)	Mean	SD
Demography				
Age (year born)	.182	-.282[*]	1960.26	14.6
Gender M=1; F=2	-.107	.168	F=62%	
Level of education (4=highest)	-.007	.049	3.13	.8.17
Socioeconomic status (1=highest)	-.100	.366[**]	2.71	.81
Satisfaction of needs (5=highest)				
Satisfaction with social relations	.098	-.289[**]	3.71	.85
Satisfaction of lower needs	-.131	-.102	2.94	1.02
Satisfaction of higher needs	-.064	-.080	3.24	.75
Realization of values (5=highest)				
Realization of the value of freedom	.230[*]	-.304[**]	3.34	.86
Realization of the value of wealth	-.062	-.080	2.70	1.00
Realization of the value of social significance	.177	-.352[**]	3.33	.70
Realization of the value of contribution to society	.218[*]	-.341[**]	2.11	.87
Self-identities (5=highest)				
Being a person of influence	.050	-.144	3.40	/84
Being task oriented	.138	-.205*	2.81	.93
Being responsible	-.020	-.046	3.61	.95
Being young and active	.088	-.107	2.63	1.06
*p<.05; **p<.01				
Mean	3.42	2.11		
SD	.65	.87		

Out of the 15 simple correlations of the predictors with "*satisfaction with health*", only two were at an accepted level of statistical significance and both depict realization of values: the value of *freedom of thought and deed*; and the value of *contribution to society*. Seven of the predictors stand at an accepted level of statistical significance with "*satisfaction with life*". More satisfied are: younger respondents; those higher in socioeconomic status; those satisfied with their social relations; those whose values are better realized (the values *of Freedom*, of *contribution to society*, and the value of *social significance)*; those whose self-identity as *Being task oriented* is given expression.

The two outcome variables (*satisfaction with life* and *satisfaction with one's health)*, slightly relate to each other (r=.338; p<01). This is statistically significant but not very meaningful – a common variance of only 11%.

Table 2 is the result of a multiple regression analysis where all the P-E fit and demographic variables are regressed on "*satisfaction with life*".

Following the statistical rational explained in the footnote to table 2, we learn that the P-E fit of realization of values is the only dimension of P-E fit that explains variance in *satisfaction with life*; about forty percent of the explained variance (and about 15% of the total variance). About sixty percent of the explained variance is due to demographic characteristics. None of the variables denoting P-E fit of needs or self-identity entered the regression formula.

Another multiple regression analysis for *satisfaction with health* produced only on predictor: level of realization of the value of *freedom of thought and deed (*R=.224; R^2=.050). Health is apparently determined mostly by other circumstances and situations a person experiences.

Table 2. Stepwise multiple regression analysis where "satisfaction with life" serves as a dependent variable and variables depicting demographic characteristics, level of need satisfaction, level of values realization and level of expressions of self-identities serve as predictors.[1]

Predictors	B	*Beta*	*r*	*Beta* *r*	Contribution (in %) to explained variance
Socioeconomic status (five categories) (demography)	.383	.359	.386	.139	37.5%
Contribution to society (value)	-.345	-.221	-.349	.077	20.8%
Freedom (value)	-.194	-.185	-.384	.071	19.1%
Age (yr. born, demography)	.015	-.239	-.267	.064	17.3%
Level of education (demography)	.216	.192	.106	.020	5.4%
Constant=2.876; R=.609; R^2=.371; $R^2_{adj.}$=.332; SE of estimate=.727; N=100					

(1)   Since R^2= $beta_1$*r_1 + $beta_2$*r_2 +…+ $beta_n$*r_n. Therefore, $beta_n$*r_n / R^2 * 100 gives an estimate in % of the contribution of predictor n to the explained variance in the dependent variables. This would not apply for r that is very small or when the signs (plus or minus) of *Beta* and *r* do not match.

4. Discussion and summary

The multiple regression analysis reveals that only demographic characteristics and extent of value realization contribute to the explanation of variance in the level of life satisfaction. Demographic characteristics (age, socioeconomic status, and level of education) contribute about 60% of the explained variance. Realization of the values *contribution to society* and level of having *freedom of thought and deed* contribute another 40%.

Predictors depicting P-E fit of needs and P-E fit of expression of self-identities did not enter the regression formula. I tested for the possibility that the demographic characteristics (age, socioeconomic status and education) cover in them the contributions (to explanation of variance in life satisfaction) of need fulfilment and of expressions of self-identity. This is not the case. The simple correlations of socioeconomic status and level of education with those variables produced no statistical significant results and age had low correlations with two measures of need satisfaction (r=.203 and r=.224) and a little higher correlation with *being young and adventurous.* Then I tested for the possibility that P-E fit of *values* overlap with P-E fit of needs and with P-E fit of self-identity. Here indeed I found overlap as the correlations ranged between r=.158 (NS) of *contribution to society* with *being young and active*, to r=.679 with *being a person of influence.* Thus, while P-E fit of values overlap to a certain extent with P-E fit of

self-identity when the two are "competing" for importance in explaining variance of satisfaction with life and with one's health, the P-E fit of values "trumps" self-identity and needs.

These findings lead me to conclude that while level of realization of one's values is an important but not a major predictor of level of organizational commitment (as some of the literature shows), when it comes to explaining satisfaction with one's life, values and the level of their realization take a very prominent position. They are more important than the extent of need satisfaction and more important than extent of opportunities given to express one's self identity.

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PERCEIVED PARENTAL BONDING IN A SAMPLE OF SCHOOL DROPOUTS

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Abstract

The purpose of this study was to compare young school dropouts' perception of early maternal and paternal bonding. The sample consisted of 200 (62% male, 38% female) dropouts from primary schools, ranging in age from 16 to 22 years (M = 18.2; SD = 0.99) in Estonia. Participants completed the Parent Bonding Instrument (Parker, Tupling, & Brown, 1979) for the perception of early maternal and paternal bonding, including the Low Care, High Care, Low Control and High Control subscales. Overall, school dropouts reported low levels of parental care and high levels of parental control as reflection of affectionless control rearing style. Two findings in early school leavers were particularly noteworthy. First, there was a significant difference between maternal and paternal high care scores (F = 1.66; p = 0.00) with lower levels of maternal care. Secondly, the results suggested that dropouts reported lower levels of maternal control compared with paternal control scores (F = 1.35; p = 0.01). The findings specified the parental risk factors – distortions in early maternal bonding in terms of low care and control, as school dropout risk factor.

Keywords: Parental bonding, adolescence, school dropouts.

1. Introduction

There is increasing documentation pertaining to the influence of parents on the child's and adolescents' school dropout process identifying three aspects of families as most important – family structure, family resources, and family practices (e. g. Rumberger & Lim, 2008). Studies that include family practices as risk factors for dropping out from school have focused on isolated variables such as parental expectations, parental school involvement, parental supervision of the child, quality of parent-child interactions, parenting styles, and family lifestyles and values (Alpert & Durham, 1986; Brooks-Gunn, Guo, & Furstenburg, 1993; Dornbusch et al., 1987; Fortin et al. (2006); Gillock & Reyes, 1999; McNeal, 1999; Morris, Ehren, & Lenz, 1991; Rumberger, 1995; Rumberger et al., 1990; Walker et al., 1998). However, most of these studies relied on questionnaires or interview data, none of them began in the early years. Only two longitudinal studies have examined explicitly defined early quality of parenting in relation to development of school dropout among adolescents: Garnier, Stein and Jacobs (1997) revealed that early family nonconventionality with higher commitment to lifestyle values was associated with a lower probability of dropping out; and Jimerson et al. (2000) found that the quality of the family environment and the early quality of parenting (consisting of three components: limits set by mother, material sensitivity and infant-mother attachment) given to the child were strong predictors of school dropout.

According to attachment theory, individuals who are not emotionally bonded or attached to warm and caring parents tend to become antisocial (Bowlby, 1969; Carlson & Sroufe, 1995). A significant gap in the literature on risk factors for school dropping out is the relative lack of research on early parental bonding. Two previous studies among university students used the Parental Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979), the most widely used measure of parental bonding: Klein and Pierce, (2009) showed that the most successful college adjustment was seen in students with parents viewed as providing the combination of high care and control, whereby both maternal and paternal bonding was critical for successful college adjustment; and Sideridis and Kafetsios (2008) indicated that paternal caring and, to a lesser degree, maternal caring were associated with lower levels of fear of failure, anxiety and depression.

Previous studies have examined the relationship between early parental bonding and externalized problems in adolescents: Early maternal bonding was found to be mediator increasing likelihood of fighting, truancy and low academic achievement among adolescents affiliated with subcultures

(Bobakova, et al., 2015); poor parental bonding was related to nonviolent and violent antisocial behaviours among younger age (14-16 years olds) group adolescents (Cutrín et al., 2017); and parental bonding (especially maternal care) had indirect influence to adolescents academic burnout, which relates directly to academic stressors (Han et al. 2010; Shin et al., 2012). Also, poor maternal care was characteristic of self-reported delinquency in adolescents (Pederson, 1994), and low care and high control from either parent were associated with higher levels of delinquency in both adolescent boys and girls (Mak, 1994). In addition, empirical evidence was found concerning early parental bonding impact on internalizing problems in adolescents: High levels of anxiety and depression were linked with low care by the father figure in the group of young offenders, and high levels of anxiety were linked with low care by mother (Chambers et al., 2000); adolescents with severe suicidal behavior tended to perceive their mothers as less caring and more controlling compared to those with mild or no suicidal behaviour (Freudenstein et al., 2011).

Although poor parental bonding was found to be a risk factor for adolescents' such behavior problems as anxiety, delinquency, suicidal behavior, truancy, violence, low academic achievement and academic burnout, current literature is inconsistent about the relative role of suboptimal parental care and parental control, but most reports agreed that, in mothers, the lack of maternal care was associated with an increase in adolescents' externalized problems.

One of the under-researched family practice risk factor relevant to dropping out from school is early parental bonding. This raise the question about the quality of early maternal and paternal bonding in a sample of adolescents who have experienced school dropping out. The purpose of this study was to compare young school dropouts' perception of early maternal and paternal bonding. On the basis of conceptual frame – attachment theory, and previous studies, it was hypothesized that adolescent dropouts tend to perceive their mothers retrospectively as less caring compared with their perceptions of their fathers.

2. Method

2.1. Sample

A sample consists of 200 (124 males and 76 females) adolescents who had a school dropout experience ranging in age from 16 to 22 years (M = 18.03; SD = 0.99) from all districts of Estonia. The distribution of sample by age was: 16-year olds were 2, 17-years olds 51, 18-years olds 94, 19-years olds 38, 20-years olds 10, 21-years olds 3, and 22-yers olds 2. Participants of the study were left school without graduating at 6 month to 5 years ago (M = 2.04 years; SD = 1.05), and the dropping out from schools happens when the adolescents were 13-18 years old (M = 16.12; SD = 1.57).

2.2. Instrument

Parental Bonding Instrument (PBI; Parker, Tupling, & Brown, 1979) as a self-reported scale measured the subject's perceptions of early maternal and paternal bonding on two dimensions – care and control, derived from attachment theory. The first dimension "care" ranges from highly caring (affection, emotional warmth, empathy, closeness) to indifferent and rejecting. The second dimension "control" ranges from high protection (controlling, encouraging dependency, intrusion, excessive contact, prevention of independence, and infantilizing the child) to low control encouraging autonomy and independence. The PBI consists of 25 items, whereby six items compose the Low Care scale, six items High Care scale, six items Low Control scale, and seven items High Control scale following up Parker's et al. (1979) coding and ranking on a 4-item Likert scale. The higher subjects scored in two orthogonal dimensions of parental bonding, the higher were their corresponding levels of perceived parental bonding. Separate scores for the mother and the father were used in the analyses across all eight subscales of the PBI.

Cronbach's alphas for the low and high paternal care subscales were .78 and 0.75, and for low and high control subscales .87 and 0.79, indicating moderate reliability for subscale scores in this sample. Cronbach's alphas for the low and high maternal care were .83 and .89, respectively and for the low and high paternal care were .94 and .93, respectively.

3. Results

Table 1 shows descriptive statistics, including means, standard deviations, as well as the results of the one-way ANOVA analysis.

Table 1. Means, SDs and F-values for the PBI of participant' perceptions of mother and father.

PBI subscales	Mean	df	SD	*F*	p
Maternal high care	1.90	1196	0.89	2.66	0.00
Paternal high care	2.22	1182	0.87		
Maternal low care	2.88	1004	0.92	0.78	0.24
Paternal low care	2.80	934	0.91		
Maternal low control	1.88	1082	0.89	1.35	0.01
Paternal low control	1.97	959	0.74		
Maternal high control	3.00	1147	0.85	0.94	0.18
Paternal high control	3.03	960	0.87		

Significant differences for mean scores on the PBI subscales in terms of high and low care and control were revealed between maternal and paternal bonding among a sample of dropouts of school. Namely, it was emerged that mothers scored significantly lower on the PBI for care scores than fathers; and mothers scored significantly lower in low control scores than fathers. There were no significant differences in ratings of either maternal low care or paternal low care scores, and maternal high control or paternal high control scores of dropouts' ratings, reflecting prevalent characteristics of affectionless control style of parental bonding.

4. Conclusions

Previous studies (Klein & Pierce, 2009; Sideridis & Kafetsios, 2008) have indicated that the early qualitative disturbances in the development of attachment or bonds with parents set an early path toward failure from high school for university students, the key findings of the present study supported this general tendency that young dropouts from school had early disrupted parental bonding with specifying this tendency. Namely, the young dropouts in the present sample in general were characterized by high early parental control and low parental care (indicators of parental affectionless control style). However, this was the first study to compare perceived early maternal and paternal bonding quality measured by the PBI in a group of school dropouts. Our findings supported the hypothesis with regard to mothers' bonding, showing that dropouts were more likely to rate their mothers as providing low care and low control compared with evaluations given to their fathers. Present findings lend support to the importance of maternal bonding – emotionally cold, indifferent, and not controlling mother, in childhood as a risk factor for dropping out from school in adolescence.

These results are in the line with previous studies (Bobakova, et al., 2015; Han et al. 2010; Pederson, 1994) which found connections between low parental care and adolescents' externalized problem behaviors (low academic achievement, academic burnout, fighting, delinquency, truancy, violence) showing distortions in early optimal maternal care, rather than paternal bonding.

It seemed that suboptimal maternal bonding in terms of care and control would have more deleterious influence on later dropping out from school then paternal care and control did. The perception of the quality of maternal bonding may be an important risk factor of school dropout in adolescence and may guide strategies and prevention in this area. Efforts may be required to involve mothers in the preventive process of dropping out of their children from school and their involvement may have an important preventive value. Family risk factors related dropout preventive and intervention programs aimed at strengthening parental bonding – especially improving the quality of maternal bonding, may be helpful.

Future studies in the area of impact of parental bonding on adolescents dropping out of school can took into account both – maternal and paternal bonding. An unanswered question still concerns the mechanism of action underlying the association between poor maternal and paternal bonding and dropping out from school in adolescence. Nevertheless, present findings are suggestive of possible links between maternal suboptimal bonding and school dropout among adolescents, and future longitudinal studies with large sample size are needed to replicate the current findings.

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ACHIEVING GENERATIVITY THROUGH DEVELOPMENT OF ALTERNATIVE MASTER NARRATIVE

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Abstract

The paper combines two independent mixed method studies aiming at exploration the major process of negotiation with and internalization of the master narrative, which assists as the cultural framework for narrative identity development. Another goal of the study was to situate data obtained from Georgian samples in broader context of narrative inquiry within narrative identity theoretical framework, and broader model of master narrative recently proposed by McLean and Syed (2016). It analyses and compares the data obtained from same-sex desire individuals, ex-convicts and ordinary Georgian citizens, and traces the process of autobiographical reasoning and negotiation with autobiographical master narrative as the mean for development alternative master narrative, which, in turn, serves as the avenue for overcoming stigma, achieving resocialization and generativity, and coming in accord to one's own identity. The comparative analysis addresses the following questions: How do research participants construct biographical alternative master narrative? Does this narrative lead to generativity? Does autobiographical reasoning mediate development of alternative master narrative? Altogether 30 life stories (16 same-sex desired persons and 14 ex-convicts) or 720 narratives were coded for narrative autobiographical reasoning, generativity, as well as for narrative structure (redemption and contamination). Besides, thematic comparative analysis was carried out. Qualitative analysis revealed the main thematic lines of the life stories, such as stigmatization and victimization, family relations, hard childhood experiences, urge for generativity, resocialization and identity formation. Further, One-third of narratives are structured with redemption sequence, and majority of narratives have neither redemption nor contamination structure, which dramatically differ, for instance, from the dominating redemption sequence of the narratives obtained in American samples. As data analysis shows, research participants from both samples construct their life stories or narrative identities through bringing on the surface the implicit master narrative and creating their own alternative one via either shifting and replacing the events or modifying sequences of the events included in the normative life story or autobiographical master narrative.

Keywords: Alternative master narrative, generativity, autobiographical reasoning, narrative structure.

1. Introduction

McAdams (2013) introduced the concept of narrative identity as psychosocial construction that emerges through person-culture complex dynamic relationship (Gregg, 2007) and implies that individual who crafts her/his life story is always placed into social-political, cultural and historical context, which interacts and influences the process of narrative engagement (Hammack, 2008). This process leads to the development of narrative identity in accord to master narrative (McLean & Syed, 2016) in given culture or, as authors state (cf. Khechuashvili, 2016; McLean & Syed, 2016; McAdams, 2013), one can deviate from dominated script and develop one's or one's group's own master narrative, which, in turn, will be treated as alternative from broader society. As McLean and Syed (2016) theorize, alternative master narrative can be created on the group level and such narratives differ due to between-group differences.

The presented study, thus, aims at exploration the commonalities and differences in the trajectory of biographical alternative master narrative developed by same-sex desire individuals and ex-convicts based on their unique experience, trace the role of autobiographical reasoning in the process and reaching the generativity meanwhile.

2. Master and alternative narratives

The general idealized life models implicitly existing in the society in given time, are known as master narratives (Thorne & McLean, 2003). The concept is seen as consistent with the concept of "dominant discourse" employed by social scientists (Hammack, 2008), life script (Berntsen & Rubin, 2004), dominated cultural script (McAdams, 2013), and life course (Runyan, 1984). Master narrative, unlike personal life story, doesn't belong to any person and represents culturally shaped generalized story (McLean & Syed, 2016) that dominates in given culture, and reflects the idealized view of "good", acceptable life course within it. Master narrative provides the themes, contents and images for the members of a culture for construction of their own life stories.

Biographical master narrative represents a series of events that take place in a specific order and reflects prototypical life course within a certain culture. It consists of slots and requirements about what can fill the slots. These are culturally important transitional events that are expected to occur within a circumscribed age span in the life course of individual members of the culture (Berntsen & Rubin, 2004).

Deviation from the main avenue of master narrative is considered as alternative master narrative, which is formed as the different pathway to proceed in life (McLean and Syed, 2016). Through negotiation and reflexive elaboration group of people develop their own master narrative that fits more their experiences and identities, and this is known as alternative, such as narratives of same-sex desire individuals (Gogichaishvili, Khechuashvili, & Mestvirishvili, 2016; Westrate & McLean, 2010) and Black Americans (McLean & Syed, 2016). Basically, existence of alternative master narratives enhances and illustrates the power of dominated master narrative.

3. Research objectives

The main research question was: How do research participants construct alternative biographical master narrative? Also, it aims at answering the following questions: Does this narrative lead to generativity? And does autobiographical reasoning mediates development of alternative master narrative?

4. Method

4.1. Participants

Sixty adult participants were sampled based on availability and snowball sampling, all ethnic Georgians (Table 1).

Table 1. Demographics of the research participants.

Groups	N	Gender	Mean Age (SD), Range
Same-sex desire individuals	16	7 females	22.8 (4.6), 17 – 34
Ex-convicts	14	7 females	40,3 (42,4), 34 – 57
Controls	30	21 females	47,6 (17), 25 – 82

4.2. Measures and procedures

Interview Protocol. The Georgian version (Khechuashvili, 2017; Gogichaishvili, Khechuashvili, Mestvirishvili, 2016) of McAdam's (2008) Life Story Interview protocol with some modifications was administered. This is a semi-structured interview, which contains questions about key episodes (high, low and turning points, positive and negative childhood, vivid adult memories and wisdom events), challenges (life and health challenges, stories about loss and failure/regret), and future chapter, dreams/hopes and plans.

Demographics. Gender and age of participants were recorded.

Informed Consent. All participants read and signed written informed consent form. Research assistants answered all questions regarding research procedures, withdrawal from the study, anonymity and confidentiality, publishing, etc.

Place and Time. Interviews were recorded in 2014-2017, mainly in participants' homes or in NGO offices, such as "Identity" and "Hepa+". Each session lasted from 30 min to 2,50 hours.

4.3. Narrative coding

Coded memories. The story served as the unit of analysis. In each narrative were coded 14 stories: Seven key points, four challenges and future script. In total 840 memories were coded. Two independent raters coded 196 stories and got acceptable levels of reliability by each coded variable.

Narrative structure. The coding scheme for redemptive and contamination structure of narratives is derived from theoretical writings on redemption scenes and commitment scripts (e.g., Carlson, 1988; McAdams, Diamond, de St. Aubin, & Mansfield, 1997). The story was rated as having redemptive structure and was assigned code 1 if there was transition from negative scene toward positive one either in causal or time sequential mode (k=.95). The code 0 was assigned to the narrative if there was no such sequential transformation in the storytelling (Khechuashvili, 2016c, 2017; McAdams, 2008). The stories where positive event ended up with negative outcome, was rated as contamination sequence and was assigned code 1(k=.82), otherwise it was qualified as 0.

Autobiographical reasoning measured via sophistication of meaning was coded based on McLean and Pratt's (2006) scheme. Each story was coded on a 4-point scale that represents the degree of meaning-making (k=.93). A score of 0 was assigned to narratives that contained no explanation of the meaning of the event to the self. Narratives were scored as 1 if there was mention of a lesson that the narrator learned from the event. A score of 2 was assigned to stories that contained "vague meaning"; Narratives of this sort describes some growth or change in the self, but the specifics of the change are not clear. Narratives were scored as 3 if there was evidence that the narrator had gained specific emotional, psychological, or relational insight from the lived experience that applied to broader areas of his/her life (McLean & Been, 2009).

Self-Event connections were coded according the coding system proposed by Pasupathi and Mansour (2006). It implies three categories: No connection to the self, a stability story and a change story (k=.73).

Generativity. For generativity authors composed the Georgian version of coding scheme. Each memory was coded on 3-point scale (create, preserve, offer). A score of 0 was assigned to stories that contained no generativity at all. Narratives were scored as 1 if there was mention of a generational intention or action, which contains assignment of life to people or things (k =.88); A score of 2 was assigned to narratives that contained description of intention/action of preservation, protection, wariness or cultivation (k=.92). Stories were scored as 3 if generational intention/action was offered to someone ruthlessly that means offer to the next generation something, that was created, reserved and will keep its own autonomy (k =.85) (McAdams, 2013).

Normativity of events. The simplified coding scheme for normativity of events is derived based on Georgian cultural script (Tchumburidze & Khechuashvili, 2016). Narratives were scored as 1 if they contained one of the events from Georgian cultural script (such as marriage, birth of a child, death of a relative, etc.) A score of 0 was assigned to narratives that contained no event from Georgian cultural script (k=.70).

5. Results

5.1. Descriptive statistics

One-third of narratives were structured with redemption sequence (28.5%), and majority of narratives have neither redemption nor contamination structure. Besides, the narrative structure was associated with memory type: redemption was revealed in low points, turning points, and life challenges ($\chi^2(10) = 29.647$, $p = .001$), whilst contamination was found in loss, low points and childhood negative memories ($\chi^2(10) = 82.596$, $p = .000$). Besides, neither narrative structure nor memory type differences were associated with group type (ex-convicts, same-sex desire individuals and controls).

Self-event connections ($\chi^2(4) = 24.195$, $p = .000$) were found in ½ of narratives told by control group, whilst rest of the participants scored lower; However, same-sex desire individuals linked events and the own self more frequently (26.2%) than ex-convicts (15.8%), and these were mainly narratives depicting some changes in the self.

As for sophistication of meaning, same-sex desire individuals scored much higher on meaning making than ex-convicts, however, both groups scored two times lower than controls ($\chi^2(6) = 27.806$, $p = .000$). Moreover, same-sex desire individuals (36.3%) reached insight four times more than ex-convicts (8.8%), while the latter has got more specific lesson (24% vs. 15%) from lived experience.

Further, regarding generativity ($\chi^2(6) = 126.717$, $p = .000$), more than two-third of ex-convicts (79%) strived to preserve what remained in their lives, whilst only 8% of same-sex desire individuals had same intention. However, the latter has nothing to offer, unlike ¼ of ex-convicts. Both groups urged for creation almost equally (24% vs 34%).

Stories told by same-sex desire individuals contained the least number of normative events (20%), whilst ex-convicts score a bit higher (24%), and more than half of controls (55%) told stories containing normative events ($\chi^2(2) = 8.537$, $p = .014$).

5.2. Qualitative data

Qualitative analysis revealed the main thematic lines of the life stories in both groups, such as stigmatization and victimization, family relations, hard childhood experiences, urge for generativity, resocialization and identity formation.

Besides, in both groups told stories included in their own alternative master narrative alongside normative events. In case of ex-convicts these were the stories of how they had got caught, imprisonment experience, court, breaking up with the family or romantic partner, and remarrying after term in prison. As for the same-sex desire individuals, their distinguished stories were about abuse in childhood, coming out, leaving the church and friends, and starting new life full of new commitments.

6. Discussion

Thus, research participants told one-third of stories in redemption manner that replicates other studies conducted on Georgian samples (Khechuashvili, in press; Jananashvili, Khechuashvili, & Gogichaishvili, 2018; Gogichaishvili, Khechuashvili, & Mestvirishvili, 2016; Khechuashvili, 2015b). Besides, such manner of telling one's experience was associated with the type of the memory one has told. Namely, people construct their nadir, turning and challenging experiences in redemptive structure.

Although there were no between group differences in structuring one's life experiences, same-sex desire individuals and ex-convicts differed in terms of elaboration of told experience: Same-sex desire individuals were able to relate experiences and their selves more than ex-convicts. They reached more insights and found meanings in their past, especially in the experiences depicting some change in their personality or lives. This corresponds to the theoretical framework and empirical data on negotiation with master narrative and development narrative identity (McLean & Syed, 2016; McLean & Syed, 2015). Those who reach higher awareness of pressing master narrative from culture, are forced to elaborated and negotiate more with dominated script, to separate themselves from it and to make effort to develop their own, alternative narrative. This, in turn, implies more autobiographical reasoning that lead to incorporation of important life events in one's self. Hence, same-sex desire individuals reached more understanding of these experiences, as having meaning that leads to better understanding of themselves.

If we look the distribution and proportion of normative events in life stories, we found that same-sex desire individuals had the least number of such stories, that suggest they deviate more from dominated script than other groups, however, ex-convicts scored much lower than controls. Considered the trajectory of life scripts of the two groups, they differ substantially from each other: Ex-convicts were forced to deviate from regular pathway at some turning point that was imprisonment and prison experience, however, they tried their best to go back to normal life, as they put it, to fit in society again. In other words, they strived to reserialize through starting the new families, new jobs, and being enrolled in community life. The main tool of so doing for these participants was being generative – to serve people and community, to care for families and children, to preserve what is left (their identities, relationships, assets) after imprisonment and all negative experiences they gained. In contrary, same-sex desire individuals had nothing to offer to the community and broader society, however they strived to create something new. Moreover, they did not try to fit in traditional path of living unlike ex-convicts. Through both, linking life changing experiences and their selves to each other and searching and finding the meaning in those experiences, reached new understandings and new images of themselves that led them to development of alternative master narrative. Thus, ex-convicts life trajectory starts as normative as controls do, deviates at some point due to imprisonment and after they are released goes back to "normal" or follows master narrative again, whilst same-sex desire individuals start from the realization that they do not belong there and from the very beginning construct their identities in the process of development of their own, alternative master narrative against culturally determined dominated script.

As for generativity, it serves as one of the main tools of fitting back into master narrative for ex-convicts, however, same-sex desire individuals show less intention to be generative. The explanation of such differences can be distilled to age range of research participants (see Table 1). As Erikson (Erikson, 1959; McAdams & de Aubin, 1992) suggest, people care for generativity starting from mid 30s. Hence, same-sex desire individuals are too younger to be as generative as ex-convicts and it seems totally rational that they have nothing to offer to community so far.

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YOUNGSTERS' NATIONAL IDENTITY: ASSESSING IDENTITY FUSION, AFFECTIVE COMMITMENT AND COLOURS REPRESENTING THE HOME COUNTRY

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Abstract

The present research aim was to explore Estonian, Greece and Latvian youths' evaluations of their home country in three national identity aspects – fusion with the country, affective commitment toward the country and colours representing the country. The sample consists 13-17 year old students from randomly selected two schools in Estonia (N=207), Greece (N=176), and Latvia (N= 200) assessing identity fusion with one's country with a pictorial chart made of pairs of overlapping circles (Inclusion of Other in Self Scale: Aron, Aron, & Smollan, 1992). Results indicated that participants were relatively strongly fused with their own country, whereby Greek and Latvian youngsters were more fused than Estonian. Mixed distinct feelings were integral parts of young peoples' general evaluations of their home country – subjective evaluation as dominant positive feeling was accompanied by happiness and surprise, while a negative evaluations accompanied by feelings of anger, fear, contempt and sadness, showing that Latvian young peoples' feelings were more often connected with positive and Greek youngsters' with the abovementioned negative feelings. Also results showed that colour ranked as most representative of Estonia and Greece was blue and for Latvia read, whereby green ranked secondly as representative of the country for Estonian and Latvian youngsters.

Keywords: Identity fusion, affective commitment, colours representing the country, young peoples.

1. Introduction

National identity as a part of social identity is a subjective construct consisting of set of cognitions and emotions and reflecting an individual's connection with the nation (Barrett & Davis 2008). Following the background of social identity (Tajfel, 1982) theory, dominantly two branches of studies of national identity have received the attention of researchers: identification with the nation and attitude towards the country (Tartakovsky, 2012).

Central to the social identity theory is the claim that when individuals belong to a group, they form a group identity, which becomes part of their personal identity. Swann et al. (2009) describes the critical difference between identification and fusion as one between losing and retaining one's personal identity in groups wherein all members know each other personally or in extended groups (e.g. country) where members do not know each other personally. Identity fusion involves a visceral feeling of oneness with a group, despite personal and social selves remaining differentiated without diminishing the integrity of either – the personal or the social self (Swann et al., 2012). Recent researches on identity fusion had mainly focused on extended groups – as the country, among adults in different countries (Besta, Gómez, & Vázquez, 2014; Besta, Mattingly, & Błażek, 2016; Buhrmester et al., 2012; Vázquez et al., 2015), whereby some of them take a cross-cultural standpoint (Swann et al., 2014) showing substantial country level differences in identity fusion with the home country with the tendency for fused individuals to make extreme sacrifices for their country. Also, qualitative (Gaviria et al., 2015) study has demonstrated that 6-12 years old children were able to feel strongly connected with a face-to-face group and expressed willingness to make personal sacrifices for the group, but they fail to show extended fusion as was found among adults.

A first research question was evoked: How Estonian, Greek and Latvian youngsters evaluate their identity fusion with their home country?

Attitude towards a country is considered a component of national identity together with other components – identification with the nation, self-categorization, the perception of oneself as similar to

other group members (Barrett, 2005a; Barrett & Davis, 2008). Attitudes towards the country reflect the individual's general or domain-specific evaluation of the country as well as the individual's positive or negative emotions on the negative-positive continuum differing in strength of affection (Smith & Kim, 2006). Although the task of fostering a positive young peoples' attitude toward country is an important task in the context of citizenship education the past cross-sectional studies reviewed by Geboers et al. (2013) have paid attention to the youngsters' political attitudes. Cross-national studies in this area among early adolescents (Kerr at al., 2010: among 24 European countries, included also Estonia, Greece, and Latvia) and middle-adolescents (Schulz et al., 2010: among 38 European countries, included Estonia, Greece, and Latvia) have revealed that students have expressed generally positive attitudes toward their home country. Utilizing a general attitude towards one's nation scale, there tended to be differences between students' feelings about their own country, but the means of the lowest scoring country showed that the early- and middle adolescent youth does not have negative attitudes. A country-related emotion can principally vary within the positive and negative poles (Crocker & Luhtanen, 1990). Distinct feelings are integral parts of individual's general evaluation of the country – subjective evaluation as good is accompanied by feelings of pride, love, and comfort, while a negative evaluations as unsatisfactory accompanied by feelings of shame and discomfort (adolescents: Dekker, Malova, & Hoogendoorn, 2003; Walsh & Tartakovsky, 2012; adults: Smith & Kim, 2006), whereby qualitative study (Mamat, 2014) among university students demonstrated an evocation of mixed and ambivalent personal feelings about their home country.

The second research question was evoked: How Estonian, Greek and Latvian youngsters evaluate their home country from aspect of mixed feelings?

National symbols promote national identification in several ways providing individuals with social identity and vehicles for identity expression, whereby national key symbols (e.g. flags, national colours) represent the group as a whole or in the abstract communicating membership (Schatz & Lavine, 2007). Studies have examined students' knowledge of national symbols such as national anthems, songs, flags, costumes (e.g., Barrett, 2005b) and cross-nationally attitudes toward national symbols (like flags) as an integrated part of the larger multi-item scales to measure general attitudes toward the country (Kerr at al., 2010; Schulz et al., 2010) without designing to investigate national symbolism specifically. Recent only study dealing with the issues of colours representative the country (Roongthumruang, 2013) revealed for example that distinct colours – red and white, were the top two colours associated with Japan not only for adult Japanese, but also for adult respondents from the other Asian countries.

Third research question was generated: How Estonian, Greek and Latvian youngsters evaluate their home country from aspect of preference of colours representing the country?

The aim of the study was to describe differences between Estonian, Greece and Latvian young peoples' evaluations about their home country with regard to three aspects – identity fusion, affective commitment and colours representing the home country.

2. Method

2.1. Samples

A total of 583 13-17 years old adolescents from two randomly selected schools from each three countries were participated in this study: 207 13-17 years old (male 100 and female 107; M=15.48; SD= 1.03; nationality: 90.1% Estonian, 8.2% Russian, 1.7% Ukrainian) students from Estonia; 176 13-16 years old (male 85 and female 91; M=15.12; SD= 1.15; nationality: 88.1% Greek, 7.9% Albanian, 2.2% Indian, 0.6% Armenian, 0.6% Bulgarian, 0.6% Polish) form Greece; 200 13-17 years old (male 102 and female 98; M=14.14; SD=0.82; nationality: 86% Latvian, 14% Russian) from Latvia.

2.2. Instruments

The measure of identity fusion with the country was a single-item pictorial scale, based on the instrument originally developed by Aron, Aron and Smollan (1992) as the Inclusion of Other in Self Scale. This pictorial measure depicts the self and the country as separate entities – two circles. To measure the degree to which one feels fused with the country respondents were asked to select one out of seven pairs of increasingly overlapping circles representing "Self" and "Estonia/Greece/Latvia". Participants are asked to respond to the question: *Which of the following pictures best represent the way you feel right now about your relationship with a home country?* Respondents indicated by circling one of seven diagrams their level of closeness to the home country at the moment of report.

For interpretation, we coded this item such that high scores represent high levels of fusion with country, with a scale from 1 to 7.

Affective commitment as the extent to which persons feel emotionally involved with their own country was measured by a seven-item self-reported questionnaire for assessment of distinct feelings (anger, contempt, disgust, fear, happiness, sadness, and surprise), whereby the categorization of terms of emotions based on seven basic emotions, which correspond to universal cross-cultural facial expressions

of emotions (Ekman & Cordaro, 2011). For each item, respondents were asked to indicate their agreement on a five-point scale ranging from 1 = strongly disagree to 5 = strongly agree. Sample items include: *I feel happiness about my country.* The reliability for this seven-item scale was 0.85 (Cronbach's alpha) for the combined international dataset.

Colours representing the country were measured by developed self-reported six-item questionnaire consisting of names of colours - blue, green, orange, red, violet, and yellow. Classification of colours based on three primary colours (blue, red, yellow) that are the basis of all other shades and three secondary colours (green, orange, violet) that are created by mixing two primary colours together. For each item, respondents were asked to indicate their agreement on a five-point scale ranging from 1 = strongly disagree to 5 = strongly agree. Sample items include: *Estonia/Greece/Latvia associates for me with blue colour.* The Cronbach's alpha in the current study was .74 for the combined international dataset.

3. Results

Results indicated that participants were relatively strongly fused with their own country, but Greek and Latvian youngsters were more fused than Estonian (Table 1).

Table 1. Mean scale sores for a single-item measure of identity fusion with the country.

Identity fusion with country	Estonia M	Latvia M	Greece M	Estonia versus Latvia t-value	Estonia versus Greece t-value	Latvia versus Greece t-value
Relationships with home country	4.12	4.74	4.73	4.57**	3.95**	0.02

*p < .05. **p < .01

It was revealed that young people felt most often positive emotions – happiness and surprise, toward their home country, whereby Latvian young peoples' feelings were more often connected with these positive emotions toward their home country compared with Estonian and Greek youngster's feelings. Negative emotions like anger, fear, contempt and sadness were more frequently expressed feeling in connection with the home country among Greek young people compared with Estonian and Latvian youngsters' evaluations. Additionally, disgust was more dominant feeling toward their home country among Estonian young people and contempt among Latvians compared with other study group participants' evaluations, whereby all above mentioned differences were statistically significant (Table 2).

Table 2. Mean scores for each of the seven items assessing affective commitment toward the home country among three study group youth.

Statements	Estonia M	Latvia M	Greece M	Estonia versus Latvia t-value	Estonia versus Greece t-value	Latvia versus Greece t-value
Anger about home country	2.12	2.11	2.50	0.13	3.46**	3.33**
Contempt about home country	1.91	2.13	2.17	2.28*	2.59*	0.41
Disgust about home country	2.04	1.79	1.69	2.81*	3.52**	1.01
Fear about home country	2.76	2.66	3.10	0.94	3.27**	3.77**
Happiness about home country	3.77	4.05	3.70	3.60**	0.74	3.62**
Sadness about home country	2.58	2.46	2.91	1.33	2.15*	3.88**
Surprise about home country	2.84	3.41	3.01	6.13**	2.46*	1.72

*p < .05. **p < .01

There were several statistically significant differences between three study group youngsters evaluations connected with the six primary and secondary colours associated with their home country: (1) colours ranked as most representative of Estonia among Estonian youngsters compared with other study group youngsters evaluations were blue and green; (2) colour ranked as most representative of Greece among Greek youngsters compared with others was blue; (3) colours ranked as most representative of Latvia among Latvian youth compared with other study group members evaluations were red and green; and (4) Latvian and Greek young people associated orange colour more often with their home country than Estonians. The last colour representing the home country among youngsters was violet without statistically significant differences across three study group members' evaluations (Table 3).

Table 3. Mean scores for each of the six items assessing colours representing the home country among three study group youngsters.

Statements	Estonia M	Latvia M	Greece M	Estonia versus Latvia t-value	Estonia versus Greece t-value	Latvia versus Greece t-value
Country associates with yellow colour	2.19	2.33	2.22	0.99	1.04	0.77
Country associates with red colour	1.86	4.12	2.03	23.39**	2.04	11.86**
Country associates with blue colour	4.31	2.58	4.59	16.94**	1.47	19.14**
Country associates with orange colour	1.94	2.11	2.24	2.71*	2.94*	0.16
Country associates with violet colour	1.88	2.02	2.02	1.56	1.33	0.07
Country associates with green colour	3.64	3.84	2.97	1.22	3.48**	6.12**

*p < .05. **p < .01

4. Conclusions

Development of adolescents' national identity is a part of a general process of identity formation consisting of different elements, whereby it is possible to identify strongly with a nation and have a negative attitude towards the country, or to identify weakly with a nation and have a positive attitude towards the country (e.g. Barrett, 2005b; Barrett & Davis, 2008). Of particular interest of the present study was to compare three European countries (Estonia, Greece, and Latvia) adolescents' evaluations toward their own country with regard to identity fusion, emotional commitment and colours representative of the home country.

On one hand, results showed that Estonian, Greek and Latvian young people felt relatively strong fusion with their own country, but within this conceptualization of identity fusion, we can conclude that Greek and Latvian young peoples' personal identity was more strongly shared with group identity in terms of home country compared with Estonian youth.

On the other hand, the extent to which adolescents from three different study samples felt emotionally involved with their own country varied within the positive and negative poles, showing that Estonian, Greek and Latvian students' affective commitment toward their home country was ambivalent – they expressed dominantly positive affect (happiness, surprise), but also negative affect (e.g. contempt, fear, sadness) towards their own country, whereby relatively more negative emotions have evoked among Greek youngsters and positive emotions among Latvian young peoples. We may speculate that dominantly positive affective commitment to the country as a part of formation of the students' national identity during schoolyears (Hew & Cheung, 2011) and later (Mamat, 2014) may be sensitive to nowadays cross-cultural changes reflecting wellbeing and happiness of people (e.g. Helliwell, Huang, & Wang, 2017).

Previous results (Roongthumruang, 2013) have demonstrated that people from different cultures had various preferences for colour and every country attaches certain symbolic values to colours (De Bortoli & Maroto, 2001). Present cross-cultural study showed that colours ranked as most representative of home country among Estonian and Greek youngsters were blue and green, whereby red colour ranked as most representative and green as second representative as symbol of home country for Latvians. It was found the last representative as symbol of the home country was violet across all three study sample adolescents. We may speculate that Estonian, Greek and Latvian youth may be familiar with national symbols and symbolic values to colours which usually are used as national symbols of the country rooted in motives of national identity acquisition and expression.

It was argued that nowadays changes, like globalization, that have taken place with respect to the concept of national identity in terms of indentify fusion, emotional commitment and colours as symbols of country can influence young peoples' evaluations towards their country and results of the study can give new prospective for cross-cultural studies for generation of new hypothesis.

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PSYCHOLOGY STUDENTS' EXHAUSTION: WORKLOAD AND BASIC NEED SATISFACTION

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Abstract

In the Bologna process, university studying is approached as a work activity, and thus it could be analyzed applying work and organizational psychology concepts. As students' exhaustion is one of the key determinants of their well-being, it is important to reach fuller understanding of exhaustion by analyzing its' underlying mechanisms. Following Gieter, Hofmans and Bakker's integration of Job Demands-Resources Model (JD-R) and Self-Determination Theory, in this study, we wanted to clarify the relation of studying workload (as a demand) and exhaustion (as an outcome) by studying the mediating role of basic needs satisfaction (need for autonomy, competence, and relatedness). In multi-method study we tested this model by investigating students of the fourth year undergraduate psychology program, Module for work and organizational psychology at the University of Belgrade (Serbia). Apart from quantitative survey, we organized three focus group discussions (FGD). The sample comprised 60 students (85% woman; age range 21-24) that answered the questionnaire and 28 of them took part in FGDs. Exhaustion was assessed by Exhaustion subscale from Oldenburg Burnout Inventory (Demerouti and Bakker); eight items assessed on a 7-point Likert scale, Cronbach's alpha 0.82. Workload was assessed by the Quantitative Workload Inventory (Spector and Jex); five items rated on a 7-point frequency scale from 1 (never) to 7 (always), Cronbach's alpha 0.72. Basic needs satisfaction was measured by The Basic Need Satisfaction at Work Scale (Deci and Ryan) with three subscales: Autonomy (seven items, Cronbach's alpha 0.70), Competence (six items, Cronbach's alpha 0.68), and Relatedness (eight items, Cronbach's alpha 0.82); all the items were put in the university context and rated on a 7-point Likert scale. Results showed significant negative correlation of exhaustion with autonomy ($r = -.56$, $p < .001$), competence ($r = -.44$, $p < .001$), and relatedness ($r = -.33$ $p = .010$). Workload correlated significantly only with autonomy ($r = -.43$, $p < .001$) and not with other basic needs. The correlation between workload and exhaustion was $r = .51$, $p < .001$. The autonomy had a mediating role in the relation between workload and exhaustion ($b = 0.43$, BCa CI [0.17, 0.83]). Qualitative analysis showed that students value the opportunity to express their ideas and have their say. In conclusion, psychology curriculum could advance students' well-being by offering them more opportunities to satisfy need for autonomy. The results support integrating basic need satisfaction into the JD-R model.

Keywords: *Job Demands-Resources Model, autonomy, exhaustion, Serbia, students.*

1. Introduction

By creating compatible, mobile, and competitive educational space, The Bologna Declaration made higher education in Europe more market-oriented. Thus, different models and practices previously applied in business context became suitable for understanding behaviors in higher education (Pucciarelli & Kaplan, 2016). In the Bologna process, by introducing credits system (ECTS) studying activities are being approached as work activities. Apart from emphasizing students' success and evading their quitting, it is also important to achieve their well-being, which implies that students' activities can be analyzed by applying some of the work and organizational psychology concepts.

In highly competitive, fast growing educational and market place, students' exhaustion could be regarded as one of the key determinants of their well-being. In order to understand the underlying mechanisms by which characteristics of the work activity (or study program) exert their influence on specific emotional state or behavior, De Gieter, Hofmans and Bakker proposed the integration of *Job Demands-Resources Model* (JD-R model) and *Self-Determination Theory, SDT* (De Gieter, Hofmans & Bakker, 2017). Both JD-R model and SDT were previously used in analyzing students' behaviors in the higher education context (e.g. Bakker, Vergel & Kuntze, 2015; Black & Deci, 2000; Levesque,

Zuehlke, Stanek & Ryan, 2004). Nevertheless, the integration of these approaches to one comprehensive model is not frequent, especially when it comes to higher education.

The *Job Demands-Resources Model* suggests that all the job characteristics can be roughly distributed into two main categories – job demands and job resources (Bakker & Demerouti, 2018). Job demands refer to job features (e.g. workload, complex tasks) that devour physical or mental resources leading to employees' exhaustion or some other physiological and psychological costs. On the other hand, job resources (e.g. organizational support) act as energizers that motivate employees and sustain their well-being. Thus, job resources can act as buffers in relation of job demands and their negative effects.

Self-determination theory (SDT) postulates three basic psychological needs - for *competence*, *autonomy* and *relatedness* (Ryan & Deci, 2000). The first one – the need for competence relates to the employee's need to feel effective in interacting and adapting with the complex and dynamic work environment. The second one – the need for autonomy refers to the feeling of agency that is essential for personal growth, integration and well-being. The third one – the need for relatedness refers to the need for belongingness and connection with others. Experiencing autonomy, competence and relatedness within any vital life domain could lead to well-being (Levesque et al., 2004). In order to enhance their well-being people will tend toward contexts that can satisfy these basic needs. The need for autonomy received the most attention in research, partly because satisfying the need for competence strongly depends on having the opportunity for autonomous behavior (Levesque et al., 2004). Both the need for autonomy and the need for competence are congruent with approaches to stress such as Karasek's Job Demands–Control Model and Hackman and Oldham's Job Characteristics Model (De Gieter et al., 2017). By combining the strengths of JD-R model and SDT, De Gieter et al. (2017) studied the mediating role of satisfaction of needs for autonomy and competence in the relation of job characteristics, strain and performance. Results demonstrated that only the need for autonomy (and not need for competence) mediated the relation between job characteristics and strain.

In this study, we wanted to illuminate the relation of studying workload (as a demand) and exhaustion (as an outcome) by exploring the mediating role of each basic need satisfaction (need for autonomy, competence, relatedness). We have chosen to analyze all three basic needs since they have strong practical implications for education and teaching practice.

2. Method

2.1. Procedure and sample

In multi-method study we tested proposed model by investigating students on the fourth year undergraduate psychology program, Module for work and organizational psychology, Department of Psychology, Faculty of Philosophy at the University of Belgrade (Serbia). Apart from quantitative survey, we organized three focus group discussions (FGD) with the aim of deepening the understanding of underlying thoughts and feelings that follow study demands and resources in relation to their outcomes. The sample comprised 60 students (85% woman; age range 21-24) that answered the questionnaire. Almost half of them, 28 of them took part in FGD.

2.2. Instruments

Exhaustion was assessed by the Exhaustion subscale from the *Oldenburg Burnout Inventory* (Demerouti & Bakker, 2008), with eight items assessed on a 7-point Likert scale, from 1 (strongly disagree) to 7 (strongly agree), with high reliability in this research (Cronbach's alpha was 0.82). Workload was assessed by *Quantitative Workload Inventory* (Spector & Jex, 1998), with five items rated on a 7-point frequency scale from 1 (never) to 7 (always), Cronbach's alpha was 0.72. Basic need satisfaction was measured by *The Basic Need Satisfaction at Work Scale* (Deci & Ryan, 2000; Deci et al., 2001; Ilardi, Leone, Kasser, & Ryan, 1993) with three subscales: Autonomy (seven items, Cronbach's alpha was 0.70), Competence (six items, Cronbach's alpha was 0.68), and Relatedness (eight items, Cronbach's alpha was 0.82). All *The Basic Need Satisfaction at Work Scale* items were put in the university context and rated on a 7-point Likert scale (1 - strongly disagree, 7 - strongly agree).

3. Results

Results (Table 1) showed significant negative correlation of exhaustion with autonomy, competence, and relatedness. Workload correlated significantly only with autonomy and not with competence and relatedness needs satisfaction. The correlation between workload and exhaustion was significant and positive.

Table 1. Correlations between exhaustion, workload and basic need satisfaction (autonomy, competence and relatedness).

	Basic needs			Exhaustion
	Autonomy	*Competence*	*Relatedness*	
Exhaustion	-.56**	-.44**	-.33**	
Study workload	-.44**	-.18	-.21	.51**

∗∗ Correlation is significant at the 0.01 level

Following the presented correlations, we tested whether there was a significant indirect effect of the workload on exhaustion through autonomy. The mediation analysis showed that autonomy had a mediating role in the relation between the workload and exhaustion (b = 0.43, BCa CI [0.17, 0.83]).

Qualitative analysis showed that students valued the opportunity to express their ideas and have their say. Being autonomous enables them to show some extra-role performance behavior which is very difficult when it comes to highly structured activities and periods during the semester. Many different activities on various courses during the semester and highly demanding curricula usually lead to less freedom and less opportunities to engage in self-regulated study activities such as attending additional lectures, reading and watching additional sources (e.g. articles, on-line courses, lectures). Relatedness is considered to be satisfactory as peer group is considered to be their strongest resource. On the other hand, the need for competency satisfaction varies through the semester being the strongest at the beginning and the weakest by the end of teaching part of the semester with exam period approaching. It seems that competency is also related to autonomy, since the feeling of being competent, as well as autonomous also fade out through semester. At the same time, anxiety and boredom rise along the semester. Some illustrative quotes are given below.

There are too many strictly defined courses' activities that we need to do in a relatively short period, these activities are boring and they frustrate us.

There is not enough flexibility in course activities.

We have Facebook group that we use as a very important resource for doing course assignments and exam preparation, exchange of information and support from older students.

At the beginning of each semester I promise to myself that I will be actively engaged, but I fail to maintain my promise because I am overwhelmed by too many duties…

4. Conclusions

The finding that only the autonomy had mediating role in relation of workload with exhaustion is in line with the results of De Gieter, et al. (2017). The need for autonomy is the most endangered by high amount of compulsory study activities that clearly lead to exhaustion. Obviously, there is a necessity of making the study program more autonomy-supportive. It is unclear why study workload was not correlated with competence and relatedness basic needs satisfaction. In order to fully grasp the phenomenon, it would be necessary to track all three basic needs longitudinally through semester, preferably by diary approach.

The results support integrating *Self-Determination Theory* (basic needs satisfaction) with the *Job Demands-Resources Model* in the field of higher education that increasingly needs to be closer to the world of work. The context of sharp changes in the world of education and the world of work, as well as profound changes in the population of students/future workers is a fertile soil for testing and applying work and organizational theories and developing new approaches that would enable higher engagement and better outcomes, first in academic and then in the work setting.

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ATTITUDE OF STUDENTS OF UNIVERSITIES AND COLLEGES TO THE DEMOGRAPHIC POLICY OF THE RUSSIAN FEDERATION

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Abstract

Population and its reproduction is necessary attribute of the existence of the state. The process of depopulation generates economic problems, leading to a decrease in the state's geopolitical status. The purpose of this study was to study the attitude of student youth towards demographic policy in modern Russia. The study involved students of universities and colleges of St. Petersburg (206 pers., 68% of female and 32% of male; the average age of respondents was 20 years old). Attitudes of students to the demographic policy of the Russian Federation and to the polity were studied using author's scale multi factorial questionnaires. Attitude to children as a condition for the reproduction of the population was studied using the author's method of ranking associations with the concept of "children." The validity and reliability of the methods used was tested. The results of the study showed a generally favorable, but contradictory attitude to demographic policy and the state. Students believe that measures to stimulate the state fertility are not enough. At the same time, the idea of peoples saving as a national idea of modern Russia received serious support among students. The attitude to the family and children turned out to be more traditional than relying on postmodern values. The material factor plays a big role in the plans for the future self-realization of oneself as parents.

Keywords: Attitudes to demographic policy, attitudes to children, students of universities and colleges.

1. Introduction

Demographic policy is the part of the country's strategic policy and is defined as a system of measures aimed at increasing or decreasing the population growth rate. The vector of restrictive politics dominates the global demographic policy. So, the works of the Club of Rome are focused on the correction of the world's population in connection with the environmental consequences of production and consumption, as well as the growing scarcity of resources.

It is difficult not to agree that against the background of scientific and technological progress the general tendency of an imbalance between the growing needs of people and limited resources are progressing. For example, according to specialists' forecasts, energy consumption from 2007 to 2035 will increase by 49% (International.., 2010). However, the "concept of superfluous people" is absolutely not acceptable in psychology and is dangerous in politics.

Despite the significant decline in the birth rate on the planet in recent decades (Frejka, Gietel-Basten, 2016; The end.., 2017), the ideology of the Club of Rome is dominated by neo-Malthusian views. The authors of the report devoted to the anniversary of the club continue to insist on the need to minimize the birth rate on the planet and note that the Club of Rome "thanks the countries that have made a rapid reduction in the reproduction of the population" (von Weizsaecker, Wijkman, 2018). Nevertheless, it is impossible to talk about a single population policy of an abstract universal human society. Russia is not threatened with overpopulation, it is threatened with depopulation. Moreover, in Russia and the European Union there are common problems associated with the trend of declining fertility and the preservation of the ethnos, and in modern Europe the tendency of the aging of the nation is aggravated by migration problems.

Demographic globalization poses the greatest danger for Russia, as "the country and for the Russian ethnos. It could disappear and dissolve in a huge mass of growth in other countries" (Konovalova, Yuriev, 2006, p.72). Stressing the contradiction of the demographic processes going on in the world and in Russia, the author called the situation in which the country was deprived of its main resource - human - by demographic default. Australian scientist P. MacDonald emphasizes that in terms of macroeconomics extremely low birth rate in the future would lead to acute labor shortages, especially

of young skilled workers, while a rapidly aging population. He believes that the low birth rate is associated with two waves of social change, which over the past 40 years have had a strong influence on the behavior concerning marriage. The rapid growth of social liberalism was in 60-70 years ("reflexive modernization") and fast and sharp transition to deregulation (the "new capitalism") was in the 80-90 years of the last century (McDonald P., 2006). Against the backdrop of the demographic crisis, A.I. Solzhenitsyn, disillusioned with the humanitarian results of the reforms of the 1990s, proposed to build the idea of saving the Russian people as a national idea. "The saving of the people" - both in its very strength and in its physical and moral health - is the highest of all our state tasks. ... All measures to raise the national standard of living - in everyday, food, medical, educational and moral relations – are the essence of the action to save the people. To this goal, the entire atmosphere of life in the country must be set up "(see: Tretyakov, 2016).

In the process of its historical development, the society has developed a unique mechanism for the reproduction of the population - the institution of the family. The purpose of the demographic policy is defined as the creation of prerequisites "for raising the birth rate and gradual transition from reproductive behavior of families oriented to 1-2 children to the type of average number of children (2,6), and to the comprehensive strengthening of the family as a form of the most rational life activity of the individual "(Rybakovsky, 2003).

The Objective of this empirical study was to identify features of the student attitudes towards demographic policy in modern Russia.

2. Method

Empirical research tasks: to reveal the components and characteristics of students' attitudes toward the demographic policy in Russia; to carry out a comparative analysis of the attitude towards the demographic policy among students of universities and colleges; to investigate the relationship between attitudes toward demographic policy and attitudes toward the Russian state; to explore the relationship between attitudes toward children as an existential value, and attitudes towards demographic policy.

Interdisciplinary, comparative and correlation approach formed the methodological basis for the study. The special questionnaire was developed according to our algorithm (Deyneka, 2013) and used as the main method. The "Citizen questionnaire" (eg: Deyneka, Dauksha, 2014) and the method of ranking associations with the concept of "children" were used as additional.

A total amount of 206 students of St.-Petersburg took part in the research attitudes toward the demographic policy of the Russian Federation. 109 respondents were students of universities, 97 respondents were students of colleges. Among the surveyed, 32% of boys and 68% of girls. The average age of the respondents was 20 years old.

3. Results and discussion

As the study showed, students do not have a clear idea of how to evaluate modern demographic policy in the country, approvingly or not (M = 4.06; σ = 1.72). They also have little idea how to improve it (M = 4.07; σ = 1.85). The average indices of optimism regarding the improvement of the demographic situation in Russia in the next decade have been obtained (M = 4.07; σ = 1.85).Students believe that measures to stimulate the state fertility are still insufficient (M = 4.94; σ = 1.61). At the same time, the degree of agreement with the fact that the policy of peoples saving in our country should be introduced into the national idea rank turned out to be higher than the middle of the scale (M = 4.87; σ = 1.67) and is backed by a high degree of unanimity in the assessment.

The attitude to the family and children in the context of the demographic policy turned out to be more traditional not based on postmodern values. According to R.Inglehart, the pole of traditional values includes religiosity, a respectful attitude towards the family, the motherland, as well as a loyal attitude towards official authority. Emancipatory, postmodern values provide for the primacy of individual freedom over the discipline of the collective, diversity over the conformity of the group norm and the independence of citizens from state power (Inglehart, Welzel, 2005). Students believe that the family is "sacred", the greatest value in the modern world (M = 5.90; σ = 1.67), and it plays a decisive role in the development of the personality (M = 6.23; σ = 1.26). They share the view that the education of children should be based on traditions and culture (M = 5.18, σ = 1.74), and the introduction of some Western values (free love, free-child style or life for oneself) does not contribute to an increase in population (M = 5.16, σ = 1.89). Students value communication with grandparents and believe that it is necessary for the child's harmonious development (M = 5.89; σ = 1.57). Respondents respect and sympathize with large families, although few of them see themselves as the creator of such families in the future.

The results thus confirm the opinion of McDonald, who argues that, no matter how attractive new alternatives seem, the values associated with family life have not been completely swept away by the growing waves of reflexive materialism and new capitalism (McDonald P., 2006), family values are very tenacious and resilient.

At the same time, the material factor plays a very big role in the respondents' self-realization plans as parents, in particular, the need to "get on their feet", before starting their children. The majority of students consider that it is necessary to become financially independent (M = 5.58, σ = 1.72), take place as a professional (M = 5.24, σ = 1.91) and have their own housing (M = 5.12; σ = 2.05) before having children. The majority of respondents connect the number of children in the family with the material factor (M = 4.91, σ = 1.89). The general tendency for the Russian and European countries to delay the birth of children in connection with the plans for self-realization and the material factor from the standpoint of the general demographic situation is not harmless. According to McDonald, the delay in the realization of the reproductive function of each individual means a very low birth rate in society as a whole (McDonald P., 2006). Accusing the authorities that they played a key role in creating the conditions that led to the emergence of low birth rates in our country and European countries, the author is convinced that it is the authorities that must take the initiative to ensure that the youth have a greater sense of stability and confidence in the future.

Table 1. Intergroup comparisons of the attitudes towards demographic policy among students of universities and colleges.

Statement	students of colleges		students of universities		P
	M	σ	M	σ	
I am confident that the demographic situation in Russia will improve in the next 10 years	**3.88**	1.59	1.53	1.54	0.004**
The state must provide everyone with free education	**6.85**	1.32	5.67	1.74	0.002**
Demographic policy in our country should be introduced into the rank of the national idea	4.63	1.62	**5.29**	1.69	0.006**
The state should not push women to the birth of several children	**5.40**	1.87	4.91	2.00	0.037*
I am sure that the time for taking care of the child must be included in the work experience (seniority)	**5.11**	2.12	4.40	2.22	0.030*
Every young man (girl) should have an idea of contraception	**6.71**	0.92	6.41	1.28	0.028*

A comparative analysis of data in a group of university students and a group of college students (Table 1), showed both the general characteristics of the attitude to demographic policy, and significant differences. The ideological aspect of the problem was more affected by university students who had higher agreement (p <0.01) with the fact that people's saving in our country should be introduced into the national idea.

The students of colleges have higher optimism for the improvement of the demographic situation in Russia in the next decade (p <0.01). Among them there are also more those who are interested in free education and inclusion into labor length of time of the care of the child (p <0.01). Students in colleges, somewhat more than university students, are focused on "planning" the family (the groups are similar in age). They are more likely to share the view that the government should not push for the birth of several children, and that young people should be aware of contraception.

According to the one of the positions on the principles of demographic policy, fertility is a citizen's personal matter, and governments should, as much as possible, avoid interference (van de Kaa, 2006). At the same time, the situation of very low fertility contributes to the support of another scientific position, according to which it is important to focus on the perceived interests of the country as a whole, regardless of the desires of couples, and to stimulate attitudes that will lead to an "acceptable" level of fertility (Toulemon, 2011). This position is justified for countries (or continents) in which the avoidance of demographic responsibility in people of childbearing age threatens society.

The results of the "Citizen's questionnaire" showed respondents do not reflect the policy in Russia as enabling long-term planning. They demonstrated high optimism connected with the country's development in the global world, high civic pride but they showed low economic optimism. As the main problems in Russia, there are corruption, strong stratification, and express concern about the possible increase in the retirement age (consequences of the demographic crisis).

The higher the citizen's pride, the higher the family's value and demographic responsibility, as well as the understanding of the demographic problem and its importance for the country, both economically and geopolitically, strategically.

The results of the semi-projective test "Ranking of associations with the concept of "children" are reflected in Table 2.

Table 2. Descriptive statistics of the ranking test (associations with the concept of "children").

Associations with the concept of "children"	Rank	M	σ
procreation	1	3.81	3.61
meaning of life	2	4.10	4.33
the sense of responsibility	3	5.07	2.83
the joy of being	4	5.10	3.74
the help in old age	5	7.02	3.71
the way to strengthen marriage	7	8.29	3.68
self-realization	6	8.11	3.64
interesting leisure	8	8.54	3.34
material costs	12/13	10.03	3.29
long-term capital	12/13	10.03	3.91
creativity	9	8.66	3.12
respect from other people	11	9.14	3.43
salvation from loneliness	10	8.91	3.42
an obstacle in career	14	11.10	3.64
infringement of freedom	15	11.73	4.07

Associations of students with the concept of "Children" embody in the first place the unconditional value of life (procreation, the joy of being, the meaning of life), and at the same time a sense of responsibility. To a lesser extent, children are represented in the mind as a way of realizing pragmatic social goals (the way to strengthen marriage, interesting leisure, creativity, respect from other people, salvation from loneliness) and are associated with the costs (material costs and interference in self-fulfillment). Thus, a favorable picture of the reflection of the main factor of reproduction was obtained.

Table 3. Factor matrix of the data of the ranking test of associations with the concept of "children".

№	Factor weights	The name and signs of the factor	Factor loads	Signs of the factor
1	14.4	*Positives and negatives of Maternity and Paternity*		
		joy of being	-0.520	
		procreation	-0.486	
		meaning of life	-0.484	
			0.729	infringement of freedom
			0.675	an obstacle in career
			0.655	material costs
2	10.4	*Romantic / pragmatic attitudes towards children*		
		creativity	0.662	
		interesting leisure	0.509	
		the joy of being	0.458	
			-0.691	way to strengthen marriage
			-0.424	procreation
3	9.2	*Time factor*		
		self-realization	0.759	
			-0.662	the help in old age
			-0.601	salvation from loneliness
4	6.3	*Social assessments of parenthood*		
		meaning of life	0.456	
		the sense of responsibility	0.405	
			-0.761	respect from other people

The factor matrix of the ranking test contains 4 factors (Table 3): "Positives and negatives of Maternity and Paternity", "Romantic / pragmatic attitudes towards children", "Time factor" and "Social assessments of parenthood." Factors clearly show the contrast between different motives and attitudes in relation to the value of children in the picture of the subject's world.

Correlation analysis showed that students with high pragmatic attitude towards children presented more statements to the government (p <0.01) and its demographic policy.

4. Conclusions

The study showed the existence of socio-psychological prerequisites for adequate reproductive behavior among students. In general, the students showed adherence to the traditions and values of the culture of their country. In particular, they believe that the family should be engaged in the upbringing of children on the basis of traditional family values and culture. Also, students are sure that communication with grandparents is useful for the harmonious development of children. The majority of respondents showed a rejection of a lifestyle, alien to family values (free love, free-child style).

In general, students of universities and colleges see in children the happiness and meaning of life, which generates the desire to have a child under any circumstances. Showing the understanding that large families are the backbone of society and the state, students, nevertheless, do not want in the majority, to create such families.

The results of the correlation and factor analysis showed that problems in the field of health care, education and social protection are identified as obstacles to the policy of peoples saving. Most of the respondents are oriented to a delay in meeting their reproductive needs to meet their career ambitions and achieve material prosperity. Thus, the government's choice of a pro-natalist demographic policy, in which financial measures are the main stimulus for increasing the birth rate, is justified.

The study reflected the social request of young people in connection with their right to reproduction, which largely met the response in the recent extension of the maternity capital program and the provision of other long-term measures for the demographic development of the Russian Federation.

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LONGITUDINAL STUDY OF THE RUSSIAN CITIZENS' ATTITUDE TOWARD THE INSTITUTIONS OF INSURANCE AND INVESTMENT

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Abstract

The insurance industry is an integral part of the modern Russian society and economy. Thanks to the insurance risk assumption, accumulation, control and partial transfer to reinsurance and financial markets, the insurance has become an important way to protect individuals and legal entities from critical events.
The insurance system has created conditions for economic balance, increasing the level of the citizens' social protection and contributes to attracting investments to the economy. The private investment and insurance is a source of "long" money, when major assets are accumulated to provide insurance payments. The insurers are ready to realize long-term investments, given the long time period of loss occurrence. Thus, unlike many other economic institutions, the insurance companies are the guarantee of stability of the financial system (the exception is organizations that assume serious financial risks as a result of underwriting).
The results of the longitudinal method of monitoring the insurance and investment behavior of St. Petersburg policy holders over the past thirteen years are presented. The sample consisted of the insurance service consumers, both men and women of different ages and income level. In addition to investigating the genesis of the citizens' attitude toward state insurance policy, the prolonged surveillance has revealed the typology of policy holders. The following psychological characteristics of the citizens' economic behavior served as a criterion for determining the policy holders to this or that type: profit (benefit), rationality, trust, anxiety and attitude toward risk.

Keywords: Insurance behavior, insurance risks, the individual's economic security, the policy holder's typology.

1. Introduction

Today the insurance and investment are the most important part of strategic planning, which allows to predict the citizens' financial behavior and determines the Russian economy in the near and far future.
The experience of countries with developed market economy shows that under the conditions of economic reform and crisis situations, the role of the state strengthens, but under the conditions of stability and revival it shrinks, but never becomes exhausted. In Western countries, insurance has long acquired a mass character and is regarded as one of the most important institution that guarantees the protection of the citizens' personal property. Unlike Russia. For example, a voluntary medical insurance program that would ensure the attraction of funds to domestic medicine has not been properly developed. In Russia, the role of the insurer of the first instance is performed by the state, and not by the private companies, as in Western countries. For example, in Germany, the share of insurance services provided to individuals is 87% of the total insurance market. Such high indicator was achieved due to the targeted state policy. Unfortunately, Russian insurers are still not ready to adopt a significant part of the risks, which are currently covered by the state budget.
It is obvious that the Russian state should pay more attention to individuals as a subject of investment activity in the period of economic "growing up". The citizens' private investments considerably trigger the state economy. The urgency of this issue is great, because at the macroeconomic level the economy is permeated by the human factor, which is embodied in the will to make a responsible assessment of the consequences of adopting economic and political decisions (O. Deineka, 2012).
Today there are objective prerequisites for the development of the insurance institute in Russia. First, as a result of the economic crisis, the financial capabilities of the population have decreased and at

the same time there has been a need for additional costs - for example, for medical care or the education of children; the social guarantees for financial protection of disabled citizens have decreased. Secondly, the Russians began to use credit services increasingly, the obligatory condition of which is the provision of financial guarantees. And the life insurance contract is one of them.

We cannot fail to note the positive changes that have appeared on the Russian insurance market: the companies have learned to catch the needs of the insurance service consumer quickly, introducing both well-proven and innovative products. The unconditional advantage was the refusal of almost all major insurance companies to use pseudo-schemes and the emphasis on the development of traditional insurance methods.

Nevertheless, in the presence of demand from consumers and the presence on the domestic market of large insurance organizations that develop classical types of insurance and are able to meet the needs of the population fully, at present we have to state a decline in consumer activity in the real life insurance sector.

The purpose of our study is a long-term observation of the attitude of citizens toward the state insurance policy.

The subject of our study was the psychological characteristics of the reflection of the state insurance and investment policy in the citizens' minds.

The object of the study was the consumers of insurance services - the clients of insurance companies in St. Petersburg of different age, income and education.

The hypotheses of the study were:

- hypothesis No. 1: any citizen's need for insurance and therefore, for economic security, is primarily a psychological category, since the possibility to avoid insurance risks is higher than the probability of their occurrence.

- hypothesis No. 2: Russian citizens may still have predominantly a welfare and paternalistic mentality as the consequences of the Soviet period, where the state took the whole initiative to protect citizens in all insurance risks.

The tasks to be solved during the study:

1.   Substantiation of the urgency and novelty of the problem of citizens' attitude to the state policy stimulating the investment behavior of a Russian citizen, reflecting internal and external economic risks within the political and economic psychology as a scientific discipline;

2.   Use of a quality longitudinal method of monitoring the clients of insurance companies.

2. Methods of empiric study

The method was combined with non-structured interviews with clients of various insurance companies in St. Petersburg in the number of 3,304 people. A sample of 1,250 clients served as a control group, which renewed insurance policies annually, choosing insurance company offers under the influence of insurance intermediaries. The study was of the nature of longitude and lasted fourteen years, from 2008 to 2017. When extending the contract, the citizens' attitude toward insurance as a financial institution in general, loyalty to an insurance company and insurance products were assessed, both positive and negative feedback concerning insurance structures was heard. In the process of work, we had the opportunity not only to observe the consumers' behavior, but also to come into direct contact with them, ask questions, clarify the information received, analyze opinions on insurance products and the activities of insurance companies. Watching the process of policy holder socialization, we were able to identify some psychological characteristics caused by internal and external economic risks.

3. Interpreting observation data

For any person, the need for insurance - and, consequently, for economic security, is unconditional, as shown by the observation primarily of a psychological category, since the opportunity to avoid the insurance risks is higher than the probability of their occurrence. Therefore, often the choice of Russian citizens was situational, there was a calculation for a lucky chance, at random. Nevertheless, there was also an understanding that the state cannot guarantee free protection (except for certain emergency situations).

The intensive development of the banking sector and the auto loan program since the 2000s led to an abrupt jump in sales of new vehicles. The banks gave the first impetus to the development of the voluntary auto insurance market in Russia. At the same time, the consumer received all information on insurance services and investment programs from insurance intermediaries who did not have proper professional training at that time, since such specialty as "insurance business" in domestic universities

had not been studied for a long time. Interest in insurance institutions in general has increased with the increase in the number of risks in the citizen's life.

However, the interest of the insurance agents themselves, as a rule, was reduced mainly to the implementation of the insurance policy, regardless of the reliability of the company, and the receipt of instant profit. For example, in St. Petersburg, the insurance companies such as Severo-Zapadnaya Strakhovaya Kompaniya OOO (Limited Liability Company), UralSib Insurance Group ZAO (Closed Joint-Stock Company), Russkiy Mir OOO, Rostra OAO (Open Joint-Stock Company), Progress-Neva OOO and many others were in a state of fierce competition with each other in the field of auto insurance in 2003-2010. Their policies were in demand among consumers. During this period, the work of many insurance companies was subordinated to the strategy "One-day reign." Such organizations did not plan to engage in insurance seriously, focusing only on a massive and rapid sale of insurance policies. Unreasoned tariff policy and unprofessional management of insurance risks brought down the budgets of these companies. They left the market, leaving behind debts to insurers and a negative attitude toward insurance in general. Of course, the attitude to insurance and investment today would be more favorable with proper state regulation and better protection of consumers' interests. But the state policy in the field of insurance is still determined today by the approach of boots trapping.

Since 2010, the state of the insurance market was mainly determined by the incomes of an individual family, which provided for the payment of an insurance policy in the conditions of the crisis state of the economy and taking into account the budget of each Russian family, respectively. In the conditions of a strong differentiation of society in terms of income, a large category of citizens was not able to use insurance services because of the inability to maintain insurance.

The destructive and unprofessional work of the representatives of the insurance and investment market has undermined the consumer confidence in guaranteed protection. Although the payment of "tranquility" for their property and life in the future lies in the very basis of insurance. And a citizen projects his distrust to insurance institutions for a general distrust to the state economic policy.

4. Results of the study

In addition to investigating the genesis of citizens' attitudes toward state insurance policy, the prolonged surveillance has revealed the typology of policy holders. The following psychological characteristics of the citizens' insurance and investment behavior served as the criterion for typing the policy holders: profit (benefit), rationality, trust, anxiety and attitude toward risk.

The first type we called "economic" (rational) (15%). These are citizens who buy the insurance policies annually for a long time and show pragmatism by their actions. They deliberately take care of their property preservation, acquire insurance with full insurance coverage and do this until the final sale of their property. Most of them do not rely on state assistance in the event of an insured event, but they trust professionals - economists and insurance consultants. The behavior of insurance partners is governed by a contract that establishes norms and rules of action that are binding on them. The choice of an insurance product depends on the cost and the set of necessary conditions for a "quiet life" of their property. It is interesting that the mindset to obtain the maximum economic benefit does not always turn out to be reasonable due to excessive prudence. A.S. Karmine would call such consumers as "economic people" (Karmine, 2004).

The second type is "trustful" (63%). Economic thinking of these citizens largely depends on psychological factors: beautiful packaging attached to the policy, bright advertisement of a certain insurance company, the seller's professional qualities - the insurance agent makes a conversation in such a way that the client is forced to constantly agree with him. A series of affirmative answers reduces the barrier of the client's critical perception, this is what a manipulator uses to sell its insurance service. The main problem of these citizens is the lack of financial literacy. They easily respond to sales or discounts, especially without going into the conditions and ratings of insurance companies.

The third type is "anxious" (situational) (10%). These citizens rely on intuition when making economic decisions. Their situational motivation arises suddenly, often under the influence of random circumstances. This motivation may disappear as quickly as it appeared. Their economic behavior is unstable. The information of friends on burglary or theft of an uninsured car, weather conditions - for example, a hurricane, can affect their choice. Such client can conduct a long and detailed conversation about the terms of insurance, but the next day he can go missing. In addition, such clients are very interested in the information provided by the state in the promotion of economic insurance and investment programs. Reliance on intuition leads to a quick solution of the problem and frees them from the need to justify their behavior logically. Insurance and investment for this type is a kind of psychological protection from the uncertainty, fear of property loss. Sometimes such citizens are easy prey for insurance intermediaries. The insurers use simple schemes of intimidation that lead the consumer into a state of

emotional arousal. The insured begins to hurry, it is difficult to calculate their risks and, in the end, chooses an unprofitable insurance program. The Yerkes-Dodson consumer law works, the essence of which is that with strong motivation and a strong desire to purchase the goods, a person turns a blind eye to its shortcomings.

The fourth type is "risky" (irrational) (12%). These citizens do not trust the state or insurance companies and deliberately take economic risks. Their acquaintance with the insurance products is mainly of a one-time nature and occurs only on demand, for example, to insure their car, life or apartment when issuing a loan. As a rule, these people rely on a bit of luck, operate at random, their insurance strategy is a calculation for insurance issued in hind sight. These economic mistakes are largely due to conservatism ("I have never insured myself and I will not continue to tempt my fate"), egocentrism (excessive confidence in personal experience and belief that nothing will happen), the Irvine effect (overestimation of "good events" occurrence and underestimation of the possibility of "bad events" occurrence). People of this type believe in their ability to influence the course of events, which do not depend on them inherently.

The proposed typology needs an empirical verification. Currently, a correlation and multifactor study of consumers of the insurance market is carried out using the author's questionnaire "The Attitude of Citizens toward insurance and investment".

Thus, this psychological research has allowed not only to reveal changes in the economic consciousness of market participants, but also to fix typological differences of the policy holders. In the conditions of the market economy development, the most serious risk for the state, capable of bringing down the entire macroeconomic system, is the population's refusal from active economic behavior. Stability is an indispensable condition for the economic security of the state.

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ABUNDANT EXPERIENCES IN NATURAL ENVIRONMENT IN CHILDHOOD PROMOTE ATTACHMENT TO COMMUNITY

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Abstract

As a civilized society, Japan shares the problem of urbanization, which is population concentration in metropolitan cites. As large cities attract the elderly, their aging population is increasing. Additionally, as local governments provide inadequate public services to their citizens, mutual support among residents is necessary. The bonds among urban residents, however, have been weakening. Thus, the promotion of a sense of community is important. This study aims to examine whether childhood experiences in the natural environment promote attachment to community when one becomes an adult. In 2014, an internet survey was conducted among residents of Kobe City and its suburbs. The number of participants was allocated proportional to the composition of the local population among the monitors of the internet research company. Kobe City is located near Osaka, a metropolitan city. The Rokko Mountain separates Kobe City into north and south, the latter being more urban than the former. The sample size was 1,017, aged 18 to 90 years. Items input in the analyses were experiences with natural environment during childhood, importance of natural environment during childhood, and attachment to their community. The experiences with natural environment was assessed by three factors, namely, richness of nature in the area, experiences playing in a natural setting, and the existence of a person who loved nature. Education, marital status, and years of residence also included. Respondents were divided into four groups by gender and whether living in the north (suburban) or south area (urban). Multiple group structural equation modeling was conducted. Their natural experiences did not differ significantly. The scores of the richness of natural environment of residents in the north were higher than those of their counterparts in the south. Though the correlation between experiences with natural environment during childhood and the importance of natural experience differed slightly among the four groups, people who had lived in a rich natural environment in their childhood believed that natural experiences are important; those who held such beliefs correlated positively with attachment to community. This study suggests that living in a rich natural environment and having experiences in nature during childhood promote attachment to community when one becomes an adult. This finding implies that providing rich experiences in nature to children is important to promote attachment to community. Future research by random sampling with longitudinal survey is needed.

Keywords: Childhood experiences in the natural environment, attachment to community, urban residents.

1. Introduction

As a civilized society, Japan faces the problem of urbanization, which is population concentration in metropolitan cites. Large cities in Japan often provide convenient places for old people. They provide a variety of facilities including hospitals, senior residences, department stores, theatres, and museums. At the same time, the public transportation systems are well developed in large cities. Old people can access these facilities through trains or buses. Local governments usually issue a special pass for the elderly, which enable them to utilize such facilities at discounted prices. In addition, the degree of ease of access is fairly high in large cities. These characteristics of large cities attract the elderly, and the aging population in cities is thus increasing.

When people get older, they need some support to live by themselves at their homes. However, the rate of households only comprising the elderly is increasing. They cannot expect daily support from their children living separately. At the same time, as local governments provide inadequate public services to their citizens, mutual support among residents is necessary. The bonds among urban residents, however, have been weakening. An international comparative survey between Japan, the US, Germany, and Sweden shows that the ratio of the Japanese elderly who do not have someone to rely on is the highest among the four countries (Cabinet office, Government of Japan, 2015). Especially for the single

households of the Japanese elderly, the ratio of those having infrequent interactions with others was the highest, though and the single household rate is the lowest in Japan among the four countries. It is obvious that the promotion of the networks and sense of community among urban residents is necessary.

An appropriate measure for evaluating the attachment to their community is the sense of community (McMillan & Chavis, 1986). The definition of the sense of community is: 'Sense of community is a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members needs will be met through their commitment to be together' (McMillan & Chavis, 1986, p.9). They propose four elements of sense of community: membership, influence, integration and fulfilment of needs, and shared emotional connection. The Sense of Community Index II (Chavis, Hogge, McMillan, & Wandersman, 1986) consists of 24 items; however, its construct of four elements is not stable, especially for the Japanese (Sugawara et al., 2009). Sugawara et al., proposed three sub concepts: attachment to community, member connectedness, and sense of presence, with 11 items from the original Sense of Community Index. *Attachment to community* has four items: 'I think this community is a good place for me to live', 'I feel at home in this community', 'It is very important to me to live in this community', and 'I expect to live in this community for a long time'. *Member connectedness* has four items: 'People in this community share the same values', 'My neighbours and I want the same thing from this community', 'If there is a problem in this community, people who live here get it solved', and 'People in this community generally get along with one another'. *Sense of own presence* in the community has three items: 'I can recognize most of the people who live in my community', 'Most of my neighbours know me', and 'I have influence over what this community is like'.

Katagiri and Sugawara (2010) showed that past residence in the community was correlated with higher scores in this Japanese version of Sense of Community Index. The old persons who had ever lived in the community showed higher scores on sense of community than who had never done so. Especially, the resident experience in their childhood was most the influential. This suggested that the past experience might influence people's sense of community. However, little research has been done on people's sense of community considering their past experiences.

Factors related to the sense of community were explored intensively (Brown, Brown, & Perkins, 2004; Lewicka, 2011: Raymond, Brown, & Weber, 2010). Among these studies, we focused on those involving the natural environment. Suzuki and Fujii (2008) revealed that the contact level to regional environment and nature environment was positively correlated with place attachment.

Considering the importance of the past experience and contact with natural environment, it can be supposed that the rich experience in nature in their childhood should be correlated to the sense of community.

2. Objective

The objective of this study was to examine 1) whether childhood experiences in the natural environment promote attachment to the community in adulthood, 2) the difference between urban and suburban residents, and 3) the difference between male and female residents.

3. Method

In 2014, an internet survey was conducted among residents of Kobe City and its suburbs. The number of the participants was allocated proportional to the ratio of composition of local population among the monitors of the internet research company.

Kobe City is located near Osaka, a metropolitan city. The Rokko Mountain separates Kobe City into north and south, the latter being more urban than the former. Kobe city (except for Kita-ku), Ashiya-shi, Nishinomiya-shi (except for Yamaguchi-cho, Najio-cho, and Namase-cho), and Amagasaki-shi were categorized into south (urban) area. Miki-shi, Kita-ku in Kobe-shi, Yamaguchi-cho, Najio-cho, and Namase-cho in Nishinomiya-shi were categorized into north (suburban) area.

The sample size was 1,017 (south = 879, north = 213; men = 499, women = 593), with ages ranging from 18 to 90 years.

Items included in the analyses were 1) richness of nature during childhood (natural environment), 2) the existence of a person who loved nature (interpersonal environment), 3) experiences with natural environment during childhood (past experiences in natural settings), 4) importance of natural environment during childhood, and 5) attachment to the community. Respondents rated the richness of nature during childhood on a scale from '1: hardly rich in natural environment' to '4: very rich in natural environment'. Respondents were asked if they had a person who loved nature (1) or not (0). The experience with natural environment was assessed using three questions: 'Did you play in natural settings?', 'Did you have experiences of capturing an animal or a plant, collecting it, or breeding or cultivating it?', and 'Did you

visit relatives or acquaintance in rural areas?' Respondents answered on a scale from 1 'never' to 4 'often'.

Out of three sub-concepts of sense of community, we used *Attachment to community* as it was the most similar to the concept of *place attachment* cited in literature. *Attachment to community* was assessed using four questions: 'I think this community is a good place for me to live', 'I feel at home in this community', 'It is very important to me to live in this community', and 'I expect to live in this community for a long time'.

Education, marital status, and years of residence were also included as control variables. Education had seven response options including '1: junior high school', '2: high school', '3: vocational school', '4: college', '5: university', '6: graduate school (master)', and '7: graduate school (doctor)'. Marital status was a dummy variable with categories of '1: married' and '0: not married'. Years of residence was assessed as the duration for which they were living in that area.

Respondents were divided into four groups by gender and residential areas of north (suburban) or south (urban). Multiple group structural equation modeling was conducted.

4. Results

Descriptive statistics of demographic characteristics are shown in Table 1.

Table 1. Characteristics of respondents.

		N	%
Sex	Male	499	45.7
	Female	593	54.3
Working status	Yes	718	66.7
	No	358	33.3
Income (in million)	Less than 2	466	42.9
	2-3.99	226	20.8
	4-5.99	175	16.1
	6-7.99	104	9.6
	8-9.99	56	5.2
	More than 10	59	5.4
Education	Junior high school	12	1.1
	High school	207	19
	Vocational school	101	9.2
	College	146	13.4
	University	526	48.2
	Graduate school (master)	82	7.5
	Graduate school (doctor)	17	1.6
Living alone	No	913	83.6
	Yes	179	16.4
Marital status	Married	716	65.6
	Not married	376	34.5
Own house	Yes	735	67.3
	No	357	29.6
Living area	South (urban)	879	80.5
	North (suburban)	213	19.5
Age group (in years)	20's	142	13
	30's	249	22.8
	40's	324	29.7
	50's	243	22.3
	60's	134	12.3
Years of residence	Range 0-65, Mean 13.25, *SD* 12.1		

Descriptive statistics of target variables are shown in Table 2.

To examine the differences among the four groups, we conducted an ANOVA. We observed significant differences in three variables: richness of natural environment during their childhood, experiences of playing in the nature, and attachment to community. Residents of suburban areas showed higher score on richness of natural environment during their childhood than those of urban areas. Men showed higher scores on experiences of playing in the nature than women did. Urban residents showed higher scores on attachment to community than did those in suburban areas.

Table 2. Descriptive statistics of target variables: Comparisons between four groups (gender X area).

		Male		Female	
		Urban	Suburban	Urban	Suburban
1. Natural environment (1 - 4)	Mean	2.71	2.87	2.60	2.91
	SD	0.89	0.86	0.97	0.96
2. Interpersonal environment (0-7)	Mean	1.50	1.62	1.60	1.69
	SD	1.50	1.60	1.52	1.53
3. Experiences with animals or plants (1 - 4)	Mean	3.21	3.25	3.06	3.06
	SD	0.94	0.95	0.95	0.88
4. Experiences of playing in the nature (1 - 4)	Mean	3.50	3.57	3.31	3.39
	SD	0.81	0.71	0.78	0.76
5. Visiting relatives in rural areas (1 - 4)	Mean	3.22	3.28	3.15	3.09
	SD	1.05	0.91	0.97	1.00
6. Evaluation of natural experience during childhood (1 - 4)	Mean	3.40	3.40	3.42	3.46
	SD	0.69	0.74	0.62	0.62
7. Attachment to community (4 - 16)	Mean	11.98	11.30	12.10	11.69
	SD	2.49	2.07	2.39	2.22

The correlations among these variables were shown in table 3.

Table 3. Correlations among the target variables.

	1	2	3	4	5	6
1. Natural environment						
2. Interpersonal environment	.284***					
3. Experiences with animals or plants	.235***	.394***				
4. Experiences of playing in the nature	.397***	.362***	.589***			
5. Visiting relatives in rural areas	.299***	.285***	.334***	.503***		
6. Evaluation of natural experience during childhood	.316***	.324***	.373***	.449***	.297***	
7. Attachment to community	.080**	.128***	.115***	.150***	.090**	.274***

Note. ** $p < .001$, *** $p < .0001$

Finally, multiple group structural equation modeling was conducted among the four groups.

Though the model fit did not reach a satisfactory level, we chose this model as it showed the lowest score of RMSEA (.059) (Figure 1).

Figure 1. Results of multiple group structural equation modeling.
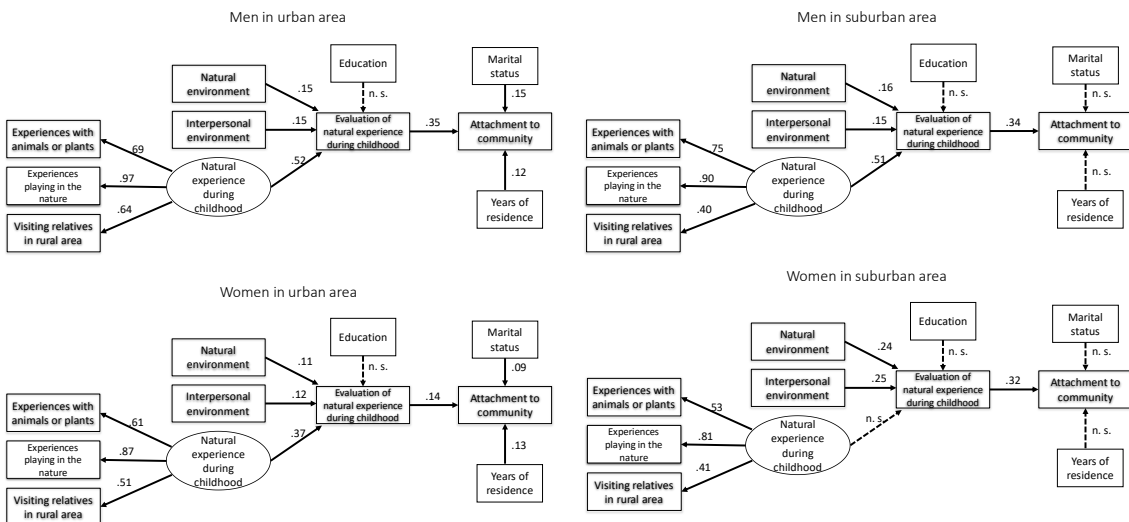
Note. Solid lines represent significant relationships. Dotted lines represent non-significant relationships.

We observed similar structures in the four groups, however, with some differences as well. Generally, we observed that rich natural environment, interpersonal environment, and natural experiences during childhood related positively to the importance of natural experiences during childhood, as also to attachment to community in adulthood.

Natural experiences in childhood were not related to the importance of natural experiences during childhood among women in suburban areas. The relationship between the importance of natural experiences during childhood and attachment to community was the weakest among female urban residents. Marital status and years of residence were related to attachment to community among urban residents, though we could not find these relations among suburban residents.

5. Discussions

This study suggests that living in a rich natural environment and having experiences in nature during childhood promote attachment to community when one becomes an adult. However, the rich natural environment in urban areas is disappearing nowadays. Naturally, the children living in urban cities cannot have ample experiences of playing in the natural setting. It is expected to further decline the sense of community among urban residents in the future. Moreover, the population inflow into urban cities will not stop.

This finding implies that providing rich experiences in nature to children is important to promote attachment to community. When the areas do not have naturally rich environments, it is better to take children to a natural setting and provide enough opportunities to be familiar with the natural environment, and enable them to understand the importance of nature. At the same time, urban city plans should attempt to ensure that cities are equipped with natural places.

As this study was cross-sectional and conducted through an internet survey, future research using random sampling with a longitudinal approach is needed.

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EDUCATIONAL PSYCHOLOGY AND COUNTERACTING SOCIAL DESTRUCTION

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Abstract

Modern global processes can generate destructive vectors for the culture and education development. In this case, most often the destructive actions become "negative strategies for assembling" social groups and society as a whole. Something that is able to unite on different grounds, under different slogans and for various reasons, but has the affective effects of unity and integrity turns out to be significant.

Special tension arises precisely in the sphere of culture, where values and preferences - *politics, violence* and *emotions* - become decisive. Although the statement that violent actions are included in the culture discourse may seem strange, since the violence is primarily identified as a splash of passions that have nothing to do with culture, and the participants may not be aware of the presence of deep-seated archetypes of violence, it actively involves *heroes*, *gestures* and *scenes* of the cultural history drama.

Today a special kind of social sensuality, tuned to fascination by fragmentary and episodic, is formed; such fascination blocks the capture by a whole, common history-plot, hinders the evaluation of events from the point of view of their intrinsicness in the overall perspective of tradition and culture. Obvious are the irreconcilable given: wealth and poverty, family and orphanhood, close people and others. In the limit there is an idea of psychological alienation - the impossibility to explain and understand the coexistence of rigidly different values and meanings. Therefore, the question of the origins of culture, morals, customs and traditions of the ethnos, nation and people is very important: the traditional life-purpose values, associated with the national and cultural image of the world, form a deep picture of consciousness that affects the ethnopsychological and philosophical and educational aspects of education. A simple and understandable principle should provide the basis for the prevention of interethnic conflicts: no one has the right to place national and religious characteristics above the laws of the state. The *State* is called upon to solve the problems of existence, it is another matter that the very strength of the state is largely based on the values and life forces of existence.

Keywords: *Value experience, psychological alienation, the social destruction, Counteracting Social Destruction.*

Modern global processes can generate destructive vectors for the culture and education development. In this case, most often the destructive actions become "negative strategies for assembling" social groups and society as a whole. Something that is able to unite on different grounds, under different slogans and for various reasons, but has the affective effects of unity and integrity turns out to be significant. Anyway, the "world village" of modernity more or less really exists, obeying in its formation not so much positive, as negative factors and impacts.

Special tension arises precisely in the sphere of culture, where values and preferences - politics, violence and emotions - become decisive. Although the statement that violent actions are included in the culture discourse may seem strange, since the violence is primarily identified as a splash of passions that have nothing to do with culture, and the participants may not be aware of the presence of deep-seated archetypes of violence, it actively involves heroes, gestures and scenes of the cultural history drama.

In addition to direct fears and anxiety experiences, there is a retroactive fear of losing fear - the experience of identification, not always acknowledged and rarely recognized (Burke, 2015). In this regard, the psychology of education capable of developing a dialogue between cultures, communities and individuals is extremely important. If we bear in mind the "totality of the post-traumatic experience" then it should be understood as an active background of destructive actions. Since the anonymity of knowledge corresponding to the information age dominates, the society loses its interest in individuals and societies. An appeal to conflict situations and categorical diagnosis of the relevant terms may indicate that in the modern world there is a battle for survival - a biological confrontation, a battle for information - a social

confrontation. The information flows are always manageable and always included in the relations of power. Accordingly, the tasks of philosophical diagnosis and humanitarian expertise are the need to explain the internal contradictions of the globalist structure of the modern world, although the subjects not always have the opportunity to engage in conscious political and cultural life actively: it is a question of the experience of the global post-traumatic syndrome reinforced by specifically Russian realities.

The difficulties in the affairs of education and upbringing are created by the most contradictory reality. The life world of any settlement is extremely polarized in value representations and orientations. At the same time, the common information-symbolic environment is outside the zone of direct influence of education, and the possibility of influencing the (virtual) existence environment turns a person into a self-sufficient being.

The impact of psychological significance - trauma, violence, terror, post-traumatic syndrome, all-pervading cynicism, social autism on the psychological sustainability of modern education - is most evident against the backdrop of social and cultural alienation. And at the same time the posttraumatic sociality, acquiring a total character, appears in the modes of limiting symbolic "spectacularity": "the real is absorbed by the model" (Debor, 1999). Thus, we can say that the political and socio-cultural reality in many respects is the result of symbolic construction, including through education, because the traditional image of person is largely dissipated. "The network society" (Castells, 1999) deprives a person of a concrete place of existence, immersing him in the impersonal "space of flows" of information messages and financial transactions. (Castells, 1999). And the same society gives disgruntled groups a kind of molecular mobility and dynamism, by virtue of which they get the opportunity for rapid self-organization and instant concentration of their psychological efforts. The nationalist and extremist attitudes and behavior programs that permeate the sphere of education, which have a destructive character, may arise here.

Accordingly, not only the programs of prognostication and global governance, but also education are most often adjusted to the "global fears" (Etzioni, 2004). The educational psychology is deeply embedded in massmedial experience, which has an operationally pragmatic character ("information society", "post-informational society", "youth subject of the information society"). And the fact that the plurality of strategies and social programs can be in principle opposition to each other, requires the identification of opportunities for building the psychological foundations of a humanistic educational system.

It follows from the fact that the identification processes - namely, the identification difficulties of establishing the image of a person and the image of the world in many ways provoke the social destruction - are oriented communicatively and pragmatically on the main positions. The communication must precisely be at the foundation of the educational psychology, since it has the character of an all-pervasive communicative impact. It should be borne in mind that the media space affects behavioral processes and programs of effective manipulation by the education through the processes of information storage and transmission. Therefore, it is necessary to form a responsible person with its principled attitude to the ethics of the human species.

Since the global world does not have a single core dimension and consists of fragments and communities, this raises the question of basic values and meanings - those cultural constants that can act as a rallying point of education. Although the rapprochement, as well as the confrontation of forces in the modern world, is actually carried out for specific reasons under specific conditions (struggle for natural resources, economic carriers, territory, property), and the political and military actions are the means, the situation is explained precisely with the help of specific for the global world symbolic constructions.

The modern situation in the world with particular acuity reveals human emotional experiences and feelings. They become extremely intense - this cannot affect the scope of the psychology of education. In the value experience - moral, religious, behavioral - there are absolutely mutually exclusive positions. Love and friendship can acquire an unusually sublime character, reaching a level of ideal representations, and can be almost completely lost in the experience of daily life or war. At the same time, the themes of embodiment, organics, physiology, and sexuality, meaningful for the educational psychology, can completely lose human - spiritual - dimensions.

In such situation, the value of a cultural memory in the post-traumatic experience of individual and social groups is very significant. We are talking about the need for a deep understanding of the causes, forms of progress and the possibilities for eliminating the conflict situations in youth communities. To do this, it is necessary to present the meanings of the relevant terms and concepts, through which the situation in society is critically analyzed. In this case, these are the concepts of nationalism, extremism and terrorism. In relation to extremism, the youth act most often as the main risk group. This is primarily due to the high social dynamism and mobility of youth groups and subcultures.

In Russia, the theme of national peculiarities in understanding the ways of development has traditionally been expressed initially in the polemic of two ideologically oriented trends - the Slavophiles

and the Westerners. Note that the Slavophiles attributed the tolerance, thirst for truth, spontaneity, cordiality, sincerity, responsiveness, generosity, national unity to the Russian character.

Today a special kind of social sensuality, tuned to fascination by fragmentary and episodic, is formed; such fascination blocks the capture by a whole, common history-plot, hinders the evaluation of events from the point of view of their intrinsicness in the overall perspective of tradition and culture. Obvious are the irreconcilable given: wealth and poverty, family and orphanhood, close people and others. In the limit there is an idea of psychological alienation - the impossibility to explain and understand the coexistence of rigidly different values and meanings. Therefore, the question of the origins of culture, morals, customs and traditions of the ethnos, nation and people is very important: the traditional life-purpose values, associated with the national and cultural image of the world, form a deep picture of consciousness that affects the ethnopsychological and philosophical and educational aspects of education. Accordingly, the axiosphere in which not only the choice of education and profession is made, but a sketch of the cosmo-anthropological universe of existence is given, acquires special significance (Gryakalov, 2015). As for education and upbringing, the key role is played by the personality of the educator - it is unlikely that educational programs where the personality is dissolved in information flows or competencies will be constructive. The effective and anthropologically adjusted educational technologies can be realized only with a clear understanding of the basic orientations of the modern global world, its complex contradictions and the peculiarities of national-cultural life worlds.

In the situation of social uncertainty, instability and social tension, the extremality of youth can obtain extreme, mostly spontaneous features that often turn into extremist moods. The attempts of individual political forces, state and public structures to use youth and education for their own aims, provoking extremist actions are often the reason for this. Predominantly the group nature of youth extremism, spontaneity, unpredictability and mobility give the phenomenon a special social danger.

A simple and understandable principle should provide the basis for the prevention of interethnic conflicts: no one has the right to place national and religious characteristics above the laws of the state. Franklin Ankersmit is right in his studies, when he notes that in a situation where money and language have become ideologies of the modern world, the very fate of democracy depends on political power, and the thought depends on political philosophy (Ankersmit, 2014). The State is called upon to solve the problems of existence, it is another matter that the very strength of the state is largely based on the values and life forces of existence. So, overcoming religious conflicts should be based on the understanding that the basic moral and spiritual values: charity, mutual assistance, truth, justice, respect for elders, family and work ideals provide the basis of Orthodoxy, Islam, Buddhism, Judaism – with all their differences and features.

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CHARACTERISTICS OF BRAZILIAN ADOLESCENT OFFENDERS AND THE YOUNG OFFENDER INSTITUTIONS' CONTEXTS: A LITERATURE REVIEW

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Abstract

Juvenile delinquency is a very worrying problem in Brazil. According to government data, at present, around 24,600 adolescents are in custody of Brazilian juvenile justice, of which nearly 17,000 are detained in young offender institutions. Considering this scenario, we believe it is important to know who are those young people and what are the contexts of the young offender institutions that they are detained. In this sense, we carried out a review of literature in Brazilian Psychology journals, published from 1990 until 2017, in order to identify the main social and demographic characteristics of adolescent offenders in custody and the contexts of the young offender institutions. To do so, we conducted systematic searches in the Regional Portal of the Virtual Health Library (VHL), one of the country's main databases. We have included only articles whose complete text was available on the Internet and excluded those that were not published in Psychology journals. After applying the inclusion and exclusion criteria, we analyzed 27 articles, of which 12 identified the social and demographic characteristics of the adolescent offenders and 15 about young offender institution and its contexts. The results and discussions point out that among the adolescents who break the law and are detained in young offender institutions, they are predominantly male, poor, peripheral, from black racial groups, with low schooling, indicating that they are exposed to various types of risks and vulnerabilities and that the rigor of Brazilian juvenile justice affects preferably the poorest and most marginalized social groups, perpetuating prejudices rooted in society since the old penal laws of the nineteenth century. They also show that most of these adolescents are in young offender institutions whose settings are highly marked by coercion and punishment, and far removed from what is prescribed by the United Nations Convention on the Rights of the Child and the UN Standard Minimum Rules for the Administration of Juvenile Justice (The Beijing Rules). We conclude that adolescent offenders are perceived as violent and dangerous and, therefore, removed from social interaction. The Brazilian juvenile justice excludes those adolescents during their custody or detention in the young offender institutions and often it remains excluding after they leave these institutions. Finally, we also conclude that it is necessary to develop policies to promote citizenship, establishing networks of support for these adolescents and their families, guaranteeing access to health, education, culture and leisure, as well as a public security policy.

Keywords: Juvenile delinquency, adolescent offender, young offender institution.

1. Introduction

Violence in Brazil is one of the most serious problems affecting society. In this context, teenagers and young people (between the ages of 15 and 29) constitute the majority of the victims and are also the majority of the crimes' perpetrators. Government data show that, at present, around 24,600 adolescents are in custody of Brazilian juvenile justice, of which nearly 17,000 are detained in young offender institutions. Moreover, between 2005 and 2015 there was a 17.2% increase in the homicide rate of people aged from 15 to 29, most of them from black racial groups (Instituto de Pesquisa Econômica Aplicada [IPEA], 2017).

1.1. Child and adolescent: legal framework in Brazil

According to article 227 of the Brazilian Constitution of 1988, family, society, and State must guarantee children and adolescents' rights with absolute priority. In order to regulate this article, the Estatuto da Criança e do Adolescente – ECRIAD (Lei n. 8.069) [Child and Adolescent Statute] of 1990, guarantees, among other rights, the integral protection to all children (from 0 to 12 years old) and

adolescents (from 12 to 18) from any type of violence and negligence. Adolescents who have committed criminal offences are also guaranteed such protection by the ECRIAD.

In 2012, it was enacted a law that regulates the execution of juvenile justice in Brazil and instituted the Sistema Nacional de Atendimento Socioeducativo – SINASE (Lei n. 12.594) [National Youth Criminal Justice Service Act]. The SINASE institution standardized the service for the young offenders, which until then was carried out in a differentiated way on the Brazilian territory. Conforming to the SINASE's Act, the objectives of the juvenile court sentences are: (1) the adolescents' responsibility regarding the harmful consequences of the offence; (2) the adolescents' social integration and the guarantee of their individual and social rights; and (3) the disapproval of the offence. Moreover, juvenile justice must emphasize the pedagogical aspect of sentences. Thus, the young offender institutions must guarantee the juveniles access to opportunities that help them to overcome their condition of exclusion, as well as provide them access to the formation of participation in society's positive values.

Given these considerations, this paper aims to carry out a literature review in Psychology journals about adolescent offenders in Brazil, verifying their main sociodemographic characteristics, and the Brazilian young offender institutions' contexts in which they are detained. Therefore, the period of interest for this research is from 1990, the beginning of ECRIAD's course, to 2017.

2. Method

Considering the objectives described above, two researchers conducted simultaneous and independent investigations in the Regional Portal of the Virtual Health Library (VHL), one of the most important databases in this field of study in Latin America. The researches were developed in October 2017 taking into account the period of the ECRIAD promulgation. The descriptors were keywords most used in the Brazilian scientific literature on juvenile offenders. Also, the surveys included only articles (papers) and excluded thesis, dissertations, book chapters, and reports.

The inclusion criteria were: papers should (1) have been published from 1990 to 2017, (2) have full content available on the internet, and (3) have as the main topic the characteristics of adolescent offenders or young offender institutions context's in Brazil. The exclusion criteria were: (1) to be published in a non-Psychology journal, (2) to focus on non-adolescent offenders, and (3) repeated titles.

Initially, each researcher read the abstracts to identify if the articles found would be included in the research corpus. Then, they made a second reading of the selected articles to identify the main theme of each text. Lastly, the researchers read meticulously the chosen articles and collected the data in a standardized worksheet. The results were analyzed by the technique of content analysis (Bardin, 2011).

3. Results and discussions

After applying the inclusion and exclusion criteria, 27 articles we analyzed, being 12 of those on the characteristics of adolescent offenders in Brazil and 15 on the young offender institutions' contexts.

3.1. Characteristics of adolescent offenders in legal custody

On this topic, no article was published before 2002, five were published from 2002 to 2010 (Ciarallo & Almeida, 2009; Endo, 2009; Espíndula et al., 2006; Njaine & Minayo, 2002; Priuli & Moraes, 2007), and seven from 2010 to 2017 (Cairus & Conceição, 2010; Cavalcante & Campos, 2016; Chaves & Rabinovich, 2010; Nardi, Jahn, & Dell'Aglio, 2014; Nascimento, Howat-Rodrigues, Rosa, & Pompeu, 2012; Vicentin, Gramkow, & Rosa, 2010; Zappe & Ramos, 2010). Regarding the research designs, eight articles used qualitative methods and four used quantitative methods. Also, studies on juvenile offenders' characteristics from all the country's regions were found, except from the North. Six studies were conducted in the Southeast region, two in the Northeast, two in the Midwest, and another two in the South region.

One of the most highlighted aspects found in these articles was that the media, especially newspapers, has for a long time been collaborating to spread negative stereotypes of adolescent offenders (Cavalcante & Campos, 2016; Espíndula et al., 2006; Njaine & Minayo, 2002). The journalistic texts convey the idea that they are aggressive, dangerous, and uncontrollable by their very nature, without any relation to their social context. This perception is shared by judges, prosecutors, law undergraduate students, and judicial officials whom attribute responsibility for committing the offence, usually, to personal characteristics (or personality) of teenagers and their relatives' socioeconomic conditions, without considering the contexts and circumstances in which the offences occurred (Ciarallo & Almeida, 2009; Nascimento et al., 2012).

The sociodemographic profile of juvenile in custody in young offender institutions consists, for the most part of males, from black racial groups, poor, peripheral resident, and with a lower level of

education (Nardi, Jahn, & Dell'Aglio, 2014; Priuli & Moraes, 2007; Zappe & Ramos, 2010). These data indicate a social construction of marginalized identities based on a typical profile of juvenile offenders, perpetuating prejudices rooted in society since the old penal laws of the nineteenth century (Endo, 2009; Cairus & Conceição, 2010).

More than 90% of juvenile offenders are male, drawing attention to cultural aspects that influence more aggressive and violent behavior on boys (Nardi, Jahn, & Dell'Aglio, 2014). Also, the results show that racism, both in the form of prejudice and discrimination, is a very complex problem and it is manifested in the exacerbated number of teenagers from black racial groups in custody of young offender institutions, even in regions where the majority of the population is white (Nardi, Jahn, & Dell'Aglio, 2014; Zappe & Ramos, 2010). In addition, poor young people living in suburban neighborhoods are more subjective to truculent approaches by the police and more severe punishments by the justice system (Ciarallo & Almeida, 2009; Nascimento et al., 2012). Finally, studies show that practically all adolescent offenders in custody had a gap between age and school grade, or had even dropped out of school, indicating that there is a serious failure from the part of families, society, and the State to provide education to these young people (Zappe & Ramos, 2010; Nardi, Jahn & Dell'Aglio, 2014; Priuli & Moraes, 2007).

3.2. Young offender institutions' contexts

About this topic, 15 articles were found (Costa & Alípio, 2010; Coutinho, Estevam, Araújo & Araújo, 2011; Estevam, Coutinho, & Araújo, 2009; Francischini & Campos, 2005; Iriart & Bastos, 2007; Morais & Malfitano, 2014; Moreira, Guerra, Oliveira, Souza, & Soares, 2015; Porta & Siqueira, 2015; Rosário, 2010; Scisleski, Bruno, Galeano, Santos, & Silva, 2015; Scisleski, Galeano, Silva, & Santos, 2014; Souza & Costa, 2012a; Souza & Costa, 2012b; Souza & Costa, 2013; Souza & Venancio, 2011). Regarding the research design, 13 articles used qualitative methods and two quantitative methods. Furthermore, the studies were conducted in four regions of Brazil, with no production of data from any state in the North. From these, five studies were conducted in the Center-West region, four in the Southeast, three in the Northeast, and one in the South.

In general, these articles show the difficulty in implementing the integral protection's doctrine even after almost three decades of ECRIAD. All of them argue the predominance of the punitive characteristics of young offender institutions to the detriment of pedagogical features. They also argue that detention is the preferred resource, even when the offence is not serious, to deal with teenager offenders instead of community services, probation, or unrestrictive freedom correctional measures, mainly if the offender is from black racial groups.

Adolescents in custody report a coercive and punitive context (Coutinho et al., 2011; Francischini & Campos, 2005; Moreira et al., 2015). Custody, whether in detention, probation, or unrestrictive freedom correctional measures is not treated as an action aimed for the resocialization of juvenile but only as punishment (Estevam, Coutinho, & Araújo, 2009; Scisleski et al., 2014; Scisleski et al., 2015). Moreover, young offender institutions' teams do not believe that juvenile court sentences and their interventions can be effective and promote a new positioning of the adolescent towards life (Morais & Malfitano, 2014; Souza & Venancio, 2011).

In parallel, community service has shown to have a controversial sentence meaning since it is used as punishment for juvenile offenders while it should be a pedagogical and reparatory measure (Costa & Alípio, 2010). According to SINASE's law, community service must be a pedagogical activity capable of stimulating the discovery of new skills and knowledge to promote positive results in adolescents' development, giving them a new opportunity in life and preventing recidivism. Furthermore, this type of judicial sentence should aim to build a new identity and perception about work, such as being a new possibility of social insertion.

Thus, correctional measures and the youth justice' system in Brazil are mainly serving to isolate these teenagers from society, either by deprivation of liberty or by the lack of access to their fundamental rights, which should be protected by the system that guarantees such rights. As a result, we have a public policy that does not achieve effective impacts for neither adolescents nor society, to which they often return without being able to have a new social insertion, frequently ending up in the same way of life that led them to comply with the previous correctional measures.

4. Conclusions

Results and discussions have shown that much of what the Brazilian laws advocate remains in documents without practical application. Adolescent offenders are perceived as violent and dangerous and, therefore, removed from social interaction. The Brazilian juvenile justice system excludes those adolescents during their custody or detention in young offender institutions, and it often remains

excluding them after they leave these institutions. This situation is even more critical with regard to poor teenagers, residents of suburban neighborhoods and from black racial groups, since the data has shown that there is a predisposition of the Brazilian juvenile justice system to punish them more severely when compared to other ethnic and social groups.

As a way to overcome this situation, we need to develop policies that promote citizenship, and protective policies that form a support network around these teens and their families, guaranteeing access to justice, health, education, professionalization, culture, and leisure, as well as a security policy inclusion.

Finally, it is important to note that although the database used in this research is a very comprehensive source, other databases were not consulted, which may have excluded important papers on the subject, as well as thesis and dissertations that were not analyzed either. Surely, this represents a limitation on our search results that cannot be overlooked. In any case, these limitations do not invalidate the relevance and comprehensiveness of the results found. We consider important the development of new investigations on the subject studied in this literature review.

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CRIMINAL BEHAVIOUR OF A JUVENILE OFFENDER AS A VICTIM OF DOMESTIC VIOLENCE

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Abstract

The article presents the data on the behavioural strategies of juvenile offenders against family tyrants and other abusers and the motives of their criminal activity according to analysis of criminal cases and court expert practice.

Keywords: Criminal behaviour, domestic violence, juvenile offender.

1. Introduction

Criminological analysis of delinquency in Russia shows the evidences of the outrunning growth of violent crimes and that domestic violence occupies considerate proportion in their structure (Kudryavtsev & Eminov, 2010). The victims of the latter are often underage members of a family (Bagmet et al., 2017). Studying the problem of the violence against children Dodge et al. (1990) have come to the conclusion that the experience of the physical violence in early childhood leads to development of corresponding chronic aggressive models of behaviour. According to the criminologist Sheider (2014), 64% of the victims of crimes in their childhood and youth become criminals in adult age when those who did not have this trauma – only in 22 % of cases.

The problem of connection between the crimes of juveniles and the violence against them as a criminogenic factor as well as the problem of the victimity of a family tyrant and the future criminal behaviour of his underage victim does not receive enough attention in the scientific literature. There are no conceptions concerning the connection of the violence in the family against underage persons with the forms of their unlawful conduct and of direct or indirect impact of the intrafamilial violence on the development of personality of a criminal, including the mechanism of influence of domestic violence on the character of behaviour of juveniles and making their decision to commit a crime.

The actuality of studying the problem of domestic violence is justified not only but the growth of disorganization of familial relations, but also by the fact that the obtained results can be applied in the prevention of juvenile crimes.

2. Objectives

The objective of our research is studying connections between domestic violence against underage children with certain types and forms of their future illegal behaviour and between the victimity of the family tyrant and future illegal behaviour of his/her victim.

The following hypotheses are suggested:

1) the proportion of the juvenile offenders undergone family abuse who committed violent crimes among the total of the violent criminals is much more than the proportion of the juvenile offenders undergone family abuse and having committed lucrative crimes in the total of the lucrative criminals;

2) there is a similarity between objective features of violent crimes committed by the underage criminals that were undergone family abuse and objective characteristics of the family abuse acts.

3. Methods

The empirical foundation of the research consists of materials of 300 criminal cases of juvenile offenders including 56 criminal files on the violent crimes of adolescents who had earlier become victims of domestic violence. The materials were collected in the court archives in Irkutsk and Moscow regions.

Analysis of the criminal files of the given category (including experts conclusions) was conducted according to the specially created technology allowing uniting personal features into the following blocks: bio-psychological features (age, physical and psychological development, hereditary load). Characteristics of socialization (family social status, style of upbringing and role behaviour, psycho-traumatic situations, forms of socialization, manifestation of social maladjustment), personal traits (features of character, behavioral strategies, intensity of some forms of addictive behaviour, motivational components in communication, achievements in studying and professional interests, domestic habits, hobbies).

4. Results

In order to fulfil the research objectives and to check the hypothesis, the analysis of the personalities of the juvenile offenders undergone domestic violence has been carried out.

According to the results of studying the criminal cases of violent crimes of juvenile offenders having been the victims of domestic violence the following data have been obtained:

90% of the adolescents have been undergone the physical violence, 88% - the psychological one and 72% - both types of violence. 4% of the criminals survived intrafamilial sexual assault.

Psychological abuse is of two types: verbal and non-verbal.

Verbal abuse includes various verbal threats, insults, humiliation etc. The example of non-verbal assault is the situation when the abuser swings a knife in front of the victim, puts a gun to his/her chest etc.

In most cases the persons abusing underage victims use both types of psychological abuse.

As the analysis of the criminal cases shows, the proportion of the lucrative criminals who undergone the family abuse was only about 4.3% among all the lucrative criminals. For the underage "violent" criminals this index is 5 times higher and the proportion is 21.3% among all the violent criminals.

As the result of the research we have defined differences between the violent attacks of juvenile offenders against family tyrants who abused them physically and against third persons (Table 1). Thus, in the situations when the family abuser is a victim of the juvenile offender one third of the acts of violence are performed the same way as having been used against him (mainly beating by kicking and punching). In those cases when the adolescent was beaten with sticks and other heavy objects, in inversion he uses thrust, cutting and hacking weapon against his abuser. In other words, the juvenile offenders are crueller against the family tyrants. When committing crimes against third persons (abusers not belonging to the family) the situation is opposite: similarity can be observed in ¾ cases (beating by kicking and punching) and only in a quarter of the cases there is the difference.

Table 1. Acts of violence of juvenile offenders against family tyrants and abusers not belonging to the family.

Similarity of the attack method	A victim is a family abuser	A third person is a victim
The attacking method is similar to those applied to an adolescent	34% (mostly beating by kicking and punching)	66% (mostly beating by kicking and punching)
The attack method is different from those applied to an adolescent	76% - when an underage person was beaten with sticks or other heavy weapons, due to inversion he/she used thrust, cutting or hacking weapons to attack an abuser	24% of juvenile offenders were less aggressive against other abusers

It should be mentioned that 78% of juvenile offenders, the victims of domestic violence, systematically take alcohol drinks (2-5 times per month). 13% of them have medically confirmed diagnosis "alcoholism".

Speaking of their moral and emotional spheres we should say that most of these adolescents have such features as rudeness, aggressiveness, exasperation and lack of shame.

16% of the criminals have relatively positive personality orientation and 8% of them reveal ambivalent tendencies: such features as hastiness, aggressiveness, cruelty against schoolmates combines with kindness and sensitivity towards their mothers also being abused by their fathers or step-fathers, with social activeness and with need of friendship and care.

38% of juvenile offenders, the victims of domestic violence, provoke a conflict by their negative behaviour in those cases when such conflict arises between the adolescent and the future victim. That demonstrates the depth of their moral and juridical deformation.

The research results allow describing such phenomenon as Role Inversion (when within one conflict interaction future juvenile offender, a victim of a family abuse, and a family abuser change their roles).

Table 2. Presence of the role inversion "abuser-victim".

Crime	Role inversion – "abuser – victim"	No role inversion – "abuser – victim"
Murder and heavy bodily injury	56% of crimes	44% of crimes
Light and medium bodily injury and beating	12% of crimes	88% of crimes

The leading motives of the crimes committed by the underage victims of domestic violence are:
1) Self-defence and defence of brothers/sisters/mothers – in cases of acts of violence against the family tyrant – in all cases;
2) Self-affirmation – in those cases when third persons (not the abusers) are the victims of the juvenile offender. In 69% cases self-affirmation is the leading motive although at first sight the crime seems having no motive at all.

In 2% crimes a specific motive of "imitation of father" is found out, when an adolescent beats his schoolmates in order to be "like his father".

In the process of criminal cases studying it has been established that 62% juvenile offenders and their victims had been having relatively long-lasting relationship (blood relationship, neighbouring, co-education) and 28% (almost one third of the subjects) are family tyrants having abused the adolescents. It is obvious that between the juvenile offender and the family abuser – the future victim of the adolescent, hostile relations existed which were the source of the future violent act of the underage person.

In other 34% cases the relations between the adolescent and his victim can be characterized as friendly (4%) or indifferent (30%).

If in case of murder and a heavy bodily assault hostile relations were established in 63% of the crimes then in case of beating and medium/light bodily assault they can be found in 12% cases. This fact allows coming to the conclusion that in cases of murder and a heavy bodily assault committed by a juvenile offender, a victim of domestic violence, the hostility against the future victim was intensive and, probably, dominated in the system of their relationship.

The conflicts in cases of murder and a heavy bodily assault can be divided in two groups:
1) Long-term conflicts: they arise among the family members having a hostile relationship as a result of insults and beatings committed by family abusers – future victims, having terrorised other family members including future juvenile offenders.
2) Short-term conflicts arising among adolescents, victims of domestic violence and their acquaintances (not the family abusers), being indifferent to each other, in a course of drinking alcohol together when the quarrel or scuffle began. In those cases the victim of the juvenile offender either provoked the violent act or facilitated it by immoral or unlawful actions.

For juvenile offenders, victims of domestic violence, is typical causing medium or light bodily harm (and beatings) to strangers. Often a crime is committed by the victim of domestic violence together with other persons without saying a word to the victim. The motive of such crimes is self-affirmation of the adolescents, victims of domestic violence.

The victims in this situation belong to two almost equal groups:
1) underage males;
2) males in the age of 55-65 years. Juvenile offenders either provoke a conflict or start beating.

In those crimes such features of adolescents as easy coming under somebody's influence, hostility, biases, caused by ungrounded generalization of their own abnormal relations with abusers – members of their families and transferring those relations on other persons by the juvenile offenders can be seen. As it has been mentioned the victims of such crimes are either underage or senior persons. The choice of the former can be explained by the fact that they suppose not to be able to put up resistance; the latter's – by the association of the future victim with the father-abuser.

The victims of murders and severe bodily damage can be characterized, as a rule, by the victimogenic deformation of personality. Thus, most of those victims offended by adolescents experienced domestic violence misused alcohol, did not work, preferring living on social benefit, were of low cultural level of household and leisure, had a low social status, were hot-tempered, rude, cruel, aggressive and that could be seen in constant quarrels, conflicts and scuffles.

The victims of medium and light bodily harm or of beating can be characterized by age victimity, lowered capability to resistance along with a high excitability, abnormal reactions on imaginary hurting their pride, unhealthy self-affirmation in adult age.

When studying the criminal cases of the juvenile offenders, victims of domestic violence, it has been found out that they had been suffered of abuse during a long time. The violence against 14-15-year future criminals had been lasted for several months. 87% of 16-17-year adolescents had been objects of such violence for 3-5 years. Thus, it can be concluded that in early stages of domestic violence they possessed age victimity. I.e. before committing the crime most of adolescents had been the victims of family tyrants when their age victimity could be seen.

It is this kind of victimity that causes the crime against their abusers: either real or seeming impossibility to get rid of suffering on legal grounds makes those adolescents to take the law in their hands.

Most juvenile offenders can be characterized by proneness to conflicts, aggressiveness against schoolmates and strangers, taking alcohol from the age of 11-12 years, neglectful attitude towards other people.

5. Conclusion

In the course of studying criminological-victimological characteristic of a juvenile offender, a victim of domestic violence the following conclusions have been obtained.

1. The criminological characteristic of a juvenile offender, a victim of domestic violence alongside with other typical features of a juvenile offender possesses a complex of specific features: retardation in educational level, defined by the number of finished school years; the bigger part of unemployed and not learning anywhere persons (twice higher than the corresponding index for all juvenile offenders) combined with differences of other indexes concerning the type of activity; every fourth victim of domestic violence is from a one-parent family (every second or third among other juvenile offenders), but at the same time in a half of those families the second parent is a step-father not their own father; in all the families with domestic abuse the relations can be described as hostile or indifferent (in every third family in case of other offenders); the percentage of persons with psychopathic features in 2-2.5 times bigger comparing with this index in the control group.

2. The hypothesis stating that in case of committing violent acts against strangers (not the abusers) the motive of juvenile offenders, victims of domestic violence, is self-affirmation receives its justification.

3. The major part of the victims of domestic violence can be characterized by age victimity and in elder age the victimogenic personality deformation can be seen.

4. The hypothesis of similarity of acts of domestic violence and violent crimes of the juvenile offenders in the ways of committing those crimes against strangers has been also confirmed.

The research has been an attempt to consider some aspects of the problem of interconnection of domestic violence against underage persons with certain types and forms of their criminal behaviour and influence of family abuse on the development of personality of a juvenile criminal.

As a result of the research some elements of the mechanism of influence of domestic violence on the character of behaviour of the adolescents and making their decision to commit a crime are more clearly understood.

The following hypothesis of the first stage of research has been confirmed: (a) that violence against adolescents' effects negatively on the development of their personality and leads to a higher probability of committing the crimes of similar aetiology; (b) concerning the similarity of the acts of domestic violence and violent crimes of the victims of family abuse in methods (in case of crimes against strangers but not the abusers).

Thus, it has been established that violence against adolescents has a pernicious effect upon their personality development and leads to a higher probability of committing crimes of similar aetiology by them. The similarity of methods committing the crimes and acts of domestic violence in case of crimes against not the abusers themselves but against third persons has been found.

The research has shown that when committing a crime against strangers, but not the abusers, the juvenile offenders try to assert themselves, to raise self-esteem and get rid of inner emotional tension.

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HOW EXPRESSIVE WRITING CAN SUPPORT CREATIVITY?

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Abstract

Negative emotions are rather seen as creativity inhibitor. On the other hand, it is worth noting that negative emotions may be good for our functioning. Negative emotions enhance cognitive resources and improve evaluative processes. Moreover, maintaining a negative emotional state allow for cognitive reinterpretation of the emotional stimuli, what is good for our creativity, especially cognitive flexibility. Writing a diary or writing about difficult emotional experiences in general can be the way to not only improve psychical health, but also – enhance creative behaviors. Thanks to translating difficult emotions to the verbal level and giving them "a name" or "a label", we can get easier access to both emotional content of an experience and to the semantic content, without the need of speaking out loud. Expressive writing improves academic results and the efficiency of working memory. The classical method of writing about emotions consists in a long-term process of describing negative experiences. Present research demonstrates the efficiency of this process over a shorter period of time - one writing session, on school children sample. Participants performed writing task. Writing task had two different topics: emotions connected with their negative emotions (expressive writing) and content not connected with negative emotional state (writing about one's typical day). Creativity was measured by Guilford's Alternative Uses Task. Results have shown that writing about negative emotions results in the higher level of divergent thinking in all three parameters: fluency, flexibility and originality. After the writing task mood of expressive writing participants remained negative more than the mood of the controls. Taking an expressive action after a difficult emotional experience can support functioning, which can be observed in enhancement of divergent thinking. Writing about emotions connected with negative experience makes one more creative, than writing about something unrelated with difficult emotional moments. Research has shown that young people should not demonize negative emotions. Sometimes, properly applied, negative emotions can be the basis of creation. Preparation was supported by a The Young Scientist University grant titled "Dynamics of emotions in the creative process" from The Polish Ministry of Science and Higher Education.

Keywords: Creativity, divergent thinking, emotions, expressive writing.

MEMORY RETRIEVAL AFTER 24 HOURS BETWEEN HEARING AND DEAF/HARD OF HEARING OF 5TH GRADE STUDENTS IN OMAN

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Abstract

This Study aims to investigate the differences in memory retrieval after twenty-four hours between hearing and deaf/hard of hearing fifth-grade students. In addition, the study aims to find whether there is a difference according to gender. The study sample included fifty-five students in grade five, divided into two groups (25 deaf/hard of hearing students and 30 students with unimpaired hearing). The students were presented with a task on smart board and then they were asked to retrieve the information after twenty-four hours. Results show there were no significant differences in memory retrieval between deaf/hard of hearing students and students with unimpaired hearing. Furthermore, the findings indicate that there were no significant differences between males and females. The results were discussed in terms of the role of technology in helping students to draw their attention and hence improving their retrieval abilities.

Keywords: Memory, smart board, deaf/hard of hearing students, average – achieving students, gender differences.

1. Introduction

Technology plays role in students' academic life and eases retrieval of concepts, knowledge, and information so that they can be employed later in a new learning situation. Smart Board is a technological tool designed to give educators the ability to present information visually and auditory. In addition, Smart Board is intended to effectively facilitate learning for students of varying levels of academic achievement. Furthermore, it could be useful for students with special needs (Yadav, 2017). However, few studies have focused on the use of the technology with deaf/hard of hearing students (Hartmann & Weismer, 2016).

In this paper, the author created a scenario familiar to the students' daily school life. However, information was presented on a Smart Board instead of on the normal classroom white board. The scenario involved two groups of students. Students were asked to do nothing but to pay attention to the material presented in the form of video content. The video content was translated into sign language for the deaf/hard of hearing students rather than giving them a transcription to read. Since deaf students differ from hearing ones in how memory functions, their learning might be affected by the differing way in which their working and long term memories interact (Marschark & Knoors, 2012; Dehn, 2011). In addition, they also differ in their reading abilities and the adequacy of their reading comprehension (Gallego, Martín-Aragoneses, López-Higes and Pisón, 2016). This is because reading fluency is related to decoding and comprehension. As a result, if students are struggling with their reading, this may affect their attention, which is also considered imperative to constructing the meaning of texts (Pikulski & Chard, 2005), encoding operations and retrieval processes (Skinner & Fernandes, 2008).

On this premise the present study aims to investigate students' capacity for memory retrieval twenty-four hours after exposure to information. In a previous study (Al Shabibi & Al Zubaidi, 2017) the present authors depended on the premise that, if students are examined for memory retrieval after twenty four hours without having informed them that retrieval will be expected, and they have remembered the concept, the information had entered students' working memory, which is one step closer to entering long-term memory (Sousa, 2006). On this premise, this study will discuss the difference in memory retrieval according to the two groups of students after a twenty-four hour period by using a Smart Board as a screen to show information on.

2. Design

A Quantitative correlational research design involving one instrument with two video recordings in two visions to test memory was used to collect data.

3. Objectives

The purpose of this study is to investigate the differences in memory retrieval twenty-four hours after exposure to information by two groups of students, one deaf/hard of hearing and the other hearing unimpaired. In addition, we aim to investigate whether memory retrieval differs by gender.

4. Methods

4.1. Participants

The study sample consisted of fifty-five fifth-grade students (mean age = 11.27 years, SD 1.83 years). The participants were selected from various schools in the Sultanate of Oman. The students were divided into to two groups: one comprised of twenty-five deaf/hard of hearing students (15 males and 10 females) and another comprised of thirty of average-achieving students with unimpaired hearing (15 males and 15 females). Their average performance ranged between 65 to 79 out of 100 in six subjects including: Islamic studies, Arabic, English, mathematics, science and history.

4.2. Instruments

The memory retrieval task consisted of 11 items, all of which were given in a multiple-choice format. Each item asked students to retrieve specific information based on a video that had been presented to them one day before. The main topic of the video presented was the tongue. This material was taken from a television series called *Wamahyaya* (Community Outreach Program, 2014). Author made a few modifications to the material to make it convenient for deaf/hard of hearing students, such as, replacing the video's sound with sign language in order to translate the auditory language for them in real time. Furthermore, the content of this material was aligned with the curriculum (e.g., science, Arabic and Islamic studies) but with the condition that the content of the video presented would remain new to the students. Attempts were made to ensure the validity and reliability of the retrieval task. The task was given to a panel of experts in educational psychology to judge the preliminary validity of the task items in terms of clarity, relevance, measurability, and suitability for the target participants. We set a minimum of agreement between eighty percent of the panel to include any retrieval task item. Cronbach alpha reliability analysis was conducted for all the scale's items in the long-term memory test (11 items; $\alpha = .77$). Through this methodology, we concluded that the results of the task are highly reliable.

4.3. Procedures

To collect data from this study, a series of procedures were followed. At the first, we asked students to pay attention to the content of a video shown on the Smart Board, used for the purpose of clarity. The following day, students were presented with the memory retrieval task. Each student was given an answer sheet while the task items were presented in PowerPoint format on a big screen. The examiner read each question and asked students to identify the answer.

5. Results

A two-way analysis of covariance (ANCOVA) was conducted to examine the differences in the memory test results according to group and gender after controlling for age. The results are summarized in tables one, two and three.

Table 1. Means and standard deviations of students in memory retrieval with respect to group and gender after controlling for age.

Group	Gender	*n*	*M*	*SD*
deaf/hard of hearing students	Male	15	5.33	1.68
	Female	10	5.50	2.59
average-achieving students	Male	15	8.43	1.91
	Female	15	6.67	1.72

Table 2. Results of the 2-way ANOCVA about differences among students in memory with respect to the groups, gender and their interactions after controlling for age.

Source	SS	Df	MS	F	P-value	Partial Eta Squared
Group	3.99	1	3.99	1.08	.30	.02
Gender	5.73	1	5.73	1.55	.22	.03
Group × Gender	12.25	1	12.25	3.31	.08	.06
Error	185.09	50	3.70			

Table 2 reveals that there was no statistically significant difference among deaf/hard of hearing students and average-achieving students with unimpaired hearing in memory retrieval. Furthermore, there were no differences between the genders.

6. Discussion

This Study aimed to investigate the differences in memory retrieval twenty-four hours after the presentation of information between 5th grade deaf/hard of hearing students and their peers of unimpaired hearing. In this task, retrieval depends on nothing but paying good attention to the information presented on the Smart Board, which is employed for purposes of clarity and attractiveness. Results show there were no significant differences between the two groups of students in the memory retrieval task. A factor in this result may be the Smart Board's ability to facilitate students' ability to pay attention to the information presented. Lewis and Jackson (2001) demonstrated that visual stimuli provide deaf students with essential information and hence improve their comprehension of material presented in television programs. However, deaf students differ from their hearing peers in several respects, such as: their reading ability and the adequacy of their reading comprehension, which are connected to their language processing skills (Gallego, Martín-Aragoneses, López-Higes and Pisón, 2016). Nevertheless, in semantic categorization, deaf children performed better at picture condition compared to written word condition, while the hearing children performed similarly with pictures and with written words (Ormel, Gijsel, Hermans, Bosman, Knoors, & Verhoeven, 2010). Given these results, this study suggests that providing sign language with a video to present information for the benefit of deaf or hard of hearing students facilitated their understanding of the video's content and reduced inattention. This may have played an essential role in the of the groups' test results, since the attention was demanded in both encoding operations and retrieval processes (Anderson, 1999; Craik, Govoni, Naveh-Benjamin and Anderson, 1996; Skinner & Fernandes, 2008).

In addition, our findings indicate that there were no significant differences between males and females in memory retrieval. This result demonstrates that any stereotype about memory retrieval that advantages males over females or vice versa is invalid. This is partially consistent with the findings of a study we previously carried out, which was inconclusive with regards to the specifics of these differences, revealing that there is no specific pattern evincing differences in memory retrieval between the genders. Therefore, these differences may be attributed solely to the specific characteristics of the individuals in each group (Al Shabibi & Al Zubaidi, 2017).

7. Conclusions

On the whole, Educators should realize that deaf children are not simply hearing children who cannot hear (Marschark & Knoors, 2012). This group of individuals rely on visual stimulation far more than students with unimpaired hearing. Therefore, the result of this study may draw the attention of teachers toward the need to employ suitable technologies more often. This can accommodate students' strengths, ability levels and needs and hence improve their memory retrieval and their scholastic life overall. Further studies should be considered to investigate whether the above findings are replicable to other relevant technologies. In addition, there should be more control for other factors which may evoke memory retrieval such as the type of smart application, different periods of time between presentation and retrieval, and control groups.

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IMPACT OF CHESS LEARNING ON PROCESSING SPEED OF SCHOOL GOING CHILDREN

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Abstract

Processing Speed is one of the measures of cognitive efficiency. It refers to the ability to automatically and fluently execute relatively easy or over-learned cognitive tasks, especially when high mental efficiency is required. Contemporary research has shown that the speed of information processing is dynamically associated with mental capacity, reading performance and development and reasoning by the conservation of cognitive resources and the efficient use of working memory. While the impact of chess training on intelligence and academic performance has been unequivocally established, its impact on Processing Speed needs to be researched. This study, funded by the Cognitive Science Research Initiative, Department of Science and Technology, Government of India, analyzed the effect of 1-year chess training on the Processing Speed of children. A pretest–posttest with control group design was used, with 88 children in the experimental group and 90 children in the control group. The sample was selected from children studying in four city schools (grades 3–9), which included both the genders. The experimental group underwent weekly chess training for 1 year, while the control group was involved in extracurricular activities. Processing Speed was measured by two subtests of Wechsler Intelligence Scale for Children (WISC-IV INDIA) namely Coding and Symbol Search. The training methodology comprised Winning Moves Chess Learning Program with the demonstration board, on-the-board playing and training, chess exercise through workbooks and working with chess software. Analysis revealed significant gains in Processing Speed in the experimental group compared to the control group. The present study clearly establishes a link between chess training and Processing Speed. Enhancing processing speed in children is especially important because of its relationship to other cognitive and academic performance indicators.

Keywords: Chess training, cognitive development, school children, processing speed.

1. Introduction

Processing speed relates to an individual's ability to perform simple repetitive cognitive tasks quickly and automatically (Schneider & McGrew, 2012). It is a cognitive ability that could be defined as the time it takes a person to do a mental task and is related to the speed with which a person can understand and react to the information they receive, whether it be visual (letters and numbers), auditory (language), or movement. In other words, processing speed is the time between receiving and responding to a stimulus.

Processing Speed is one of the measures of cognitive efficiency or cognitive proficiency. It involves the ability to automatically and fluently perform relatively easy or over-learned cognitive tasks, especially when high mental efficiency is required. It relates to the ability to process information automatically and therefore speedily, without intentional thinking through. Processing speed is one of the main elements of the cognitive process, which is why it is one of the most important skills in learning, academic performance, intellectual development, reasoning, and experience. Slow processing speed means that some determined tasks will be more difficult than others, like reading, doing math, listening and taking notes, or holding conversations. It may also interfere with executive functions, as a person with slow processing speed will have a harder time planning, setting goals, making decisions, starting

tasks, paying attention, etc. The higher the processing speed, the more efficiently you are able to think and learn.

Processing speed could be one of the key processes underlying performance of cognitive tasks under pressure, such as, recognizing simple visual patterns, visual exploration tasks, taking tests that require simple decision making, doing basic mathematical calculations or manipulating numbers. The key to improving processing speed is based on making more solid connections in the brain, which allows the signals to travel faster to one another.

Burns (2004) distinguished between two types of mechanisms that may underlie chess skills. Fast mechanisms involve recognition and slow mechanisms refer to a search through the space of positive and negative moves. Speed of processing differentiates these two processes. They concluded that variation in fast processes accounts for substantial variations in chess skills. Chess experts are less affected by time constraints than novices. According to Ericsson and Lehmann (1996) processing speed increases with expertise.

Keisel et al. (2009) investigated whether expertise in certain stimulus domain improves perceptual processing to an extent that allows complex visual stimuli to bias behavior unconsciously. Chess experts, but not novice chess players, revealed a subliminal response priming effect, that is, faster responding when prime and target displays were congruent (both checking or both non-checking) rather than incongruent. The authors conclude that long-term practice prompts the acquisition of visual memories of chess configurations with integrated form-location conjunctions. These perceptual chunks enable complex visual processing outside of conscious awareness.

A number of studies have established that chess learning clearly improves cognitive functioning and academic performance. It is likely that an increase in processing speed is one of the basic factors that support these gains. However, very few studies appear to have focused on the role of chess training in strengthening processing speed.

Joseph et al. (2016) assessed the impact of chess intervention on the IQ scores of children and analyzed the cognitive functions that contributed to the IQ gain. Eighty-six school children, boys and girls in the age group 4–15 years, undergoing chess training in academy were assessed using Binet–Kamat Test of Intelligence. Chess intervention consisted of standardized biweekly training sessions of two hours duration over a period of one year. Paired *t*-tests and regression analysis were carried out. Significant increases were observed in IQ, and regression analysis indicated that nonverbal reasoning, language, and memory significantly contributed to the dependent variable IQ.

It is hypothesized that systematic chess training would significantly increase processing speed in children. The objective of the study was to assess the impact of weekly chess training on the processing speed of school going children.

2. Methodology

The research design used for the study was pre-test post-test with control group design (Edwards, 1985; Kerlinger, 1973). The independent variable was the Chess training program and the dependent variable was Processing Speed of children.
The sample consisted of school going children with 88 children in the experimental group and 90 children in the control group. The children were selected based on the following selection criteria:
- Children who are studying in schools
- Both genders
- Age range between 6 and 14 years (grade 3 to grade 9)

The mean age for experimental group was 10.93 years (SD=2.49) and for control group was 11.15 years (SD=2.33). The experimental group consisted of 38 girls and 50 boys and the control group consisted of 33 girls and 57 boys.

2.1 Tools

Assessment of Processing Speed was carried out using the WISC-IV Assessment tool. The WISC-IV (Wechsler Intelligence Scale for Children-Fourth Edition, 2012) is an individually administered clinical instrument for assessing cognitive ability of children between the ages of 6 years through to 16 years 11 months. The test provided subtest and composite scores which represented intellectual functioning in specific cognitive domains as well as a composite score which represented general intellectual ability. The WISC-IV took from 1½ to 2 hours to complete. To ensure accurate assessment of the variables, an Indian edition of WISC IV was used. WISC-IV INDIA combined the benefits of the most recent version of the WISC and was adapted to be more relevant for India.

Scores on the Coding subtest and the Symbol Search subtest yielded the Processing Speed Index.

Key features include:
• Culture appropriate items
• Norms for children in India
• Increased developmental appropriateness
• Increased emphasis on composite scores
• Increased attention to Working Memory and Processing Speed
• More user-friendly administration and scoring
• Reflects current theory and practice of cognitive assessment of children

2.2 Chess training methodology

The training methodology comprised of Winning Moves Chess Learning Program (Joseph, 2008) Episodes 1–22, lectures with the demonstration board, on-the-board playing and training, chess exercise through workbooks (Chess school 1A, Chess school 2, and tactics) and working with chess software's. Further students games were mapped using chess base software and the brain patterns of the child were understood. They were taught the ideas behind chess openings and exposure to classical games were also given. The children participated in mock as well as regular tournaments.

3. Procedure

Baseline assessment of Processing Speed was done after obtaining informed consent. Reassessment was carried after an average duration of one year. Psychologists were trained to administer the test in a uniform standardized method to minimize the testing error. Children with an IQ below 80 (WISC IV India Edition) were excluded from the sample.

Clustering technique was used to form the training groups of 6 to 8 children. The chess training consisted of once a week chess classes conducted for one hour during school hours at the end of the day. The children were given a standardized Winning Moves Chess Learning Program (Joseph, 2008) and played at tournaments also.

4. Results

The analysis was carried out using SPSS. Analysis of covariance was carried out to establish the significance of the difference between the experimental and control groups on the Processing Speed scores following intervention, holding the pre intervention scores as covariate.

Table 1. Represents the significance of the difference between the means of the experimental and control groups on processing speed using Analysis of co-variance.

Scores	Assessment	Mean and Standard Deviation	
		Experimental	Control
Processing Speed	Pre	96.705 (13.592)	96.200 (14.372)
	Post	103.841 (13.550)	99.811 (14.430)

ANCOVA Between Experimental Group and Control Group on Processing Speed at Post-intervention

Sources of variance	Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	16098.206[a]	2	8049.103	73.633	0.000
Intercept	5073.88	1	5073.88	46.416	0.000
PreProcessingSpeed	15375.65	1	15375.65	140.656	0.000
EXPCON	606.547	1	606.547	5.549	0.02
Error	19129.91	175	109.314		
Total	1880007	178			
Corrected Total	35228.12	177			

Table 1 indicates that there was a significant effect of intervention on processing speed at post-intervention (p<.02). This shows that the mean processing speed increased in the experimental group following intervention, compared to the control group.

5. Discussion

The results clearly demonstrate that chess training has increased the Processing Speed of the children who underwent chess training when compared to the control group. Processing Speed has been assessed using the Coding subtest (the child copies the symbol that is paired with geometric shapes or numbers using a key within a specified time limit) and the Symbol Search subtest (where the child scans a search group and indicats whether the target symbol(s) matches any of the symbols in the search group within a specified time limit).

Earlier studies have reported that chess playing has resulted in increased working memory and perceptual reasoning skills (Easvaradoss et al., 2017; Joseph et al, 2017). It is possible that enhancement of these cognitive functions could have possibly led to an increase in the processing speed of children. A clear link between working memory, processing speed and reasoning has been established by clinical research in developmental cognitive neuropsychology (Fry & Hale, 1996).

Alternatively, it is possible that chess intervention directly influences the processing speed ability. Chess playing includes two methods of processing information and decision making on every single move. They are either by judgement or by calculation. Certain position requires just the positional knowledge to make a move. For instance, which side to castle, where to attack, where the point of action etc is. Certain tactical positions require detailed calculations of the various options and outcomes that could possibly evolve out of each candidate move. A candidate move is one of the moves that the chess player thinks to be analysed in detail at any given position using the tree method of thinking.

Burns (2004) emphasized that variation in fast processes accounts for substantial variations in chess skills. According to Ericsson and Lehmann (1996) processing speed increases with expertise. De groot et al. (1996) highlighted the chess master's striking ability to quickly capture, and to retain and recall, the information contained in an unknown, complex chess position: its gist and its structure, up to the precise location of almost all men. This speed in understanding a position is obviously a basic element of the master's expertise and characterizes his way of thinking in general. Increased processing speed scores (as measured by the coding and symbol search subtest) could in addition reflect increases in short-term memory, visual scanning ability, visual and sequential processing, visual-motor coordination, cognitive flexibility, visual discrimination and concentration and planning and learning ability, following intervention (Kaufman, 1994; Sattler, 2001).

Processing speed has been identified as an important domain of cognitive functioning in factor analytical studies of cognitive abilities (Horn & Noll, 1997). It may be important to both assess and sharpen the processing speed in children because of its relation to neurological development, other cognitive abilities and learning. Improvements in children's performance on measures of processing speed are mirrored by age-related changes in the number of transient connections in the nervous system and increase in myelination (Cepeda et al., 2001).

Identifying increases in processing speed following chess intervention provides us with a frame work to appreciate the impact of chess on the broader, global capacities which have been extensively researched. Processing speed is a critical ingredient in optimal cognitive functioning.

6. Implications

The role played by chess training in increasing processing speed has been clearly established in this study. This is a significant finding as processing speed ability contributes significantly by conserving cognitive resources and efficiently using the working memory for higher order fluid tasks. The link between chess and Processing Speed needs to be further researched in order to clearly understand its potential benefits and its implications in Education.

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A THEORETICAL FOUNDATION FOR THE APPLICATION OF BASIC RESEARCH IN PERCEPTION TO PROSTHETIC VISION

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Abstract

The puzzling nature of the relationship between specific aspects of perception and neural activity is an instance of the so-called 'hard problem,' which describes both a fundamental gap in our scientific understanding of mind and brain and the consequent practical limitations of therapeutic procedures. A clear demonstration of how the hard problem constrains the effectiveness of clinical intervention is provided by attempts to develop a useful visual prosthesis that electrically stimulates small regions of primary visual cortex (V1) in response to video image data. Despite very significant advances in surgical techniques and image processing capabilities, an implant recipient can expect to see only the discrete phosphenes (spots of brightness) that were reported 50 years ago using much more primitive technology. This is not surprising, because we do not know how stimulation produces a unified phosphene percept, how stimulation at different locations in V1 produces phosphenes at specific positions in visual space, or how to unify distinct phosphenes so that cortical implant recipients might see unified visual objects. Research using computer simulations of a small retina and simplified model V1 shows that persistent structures emerge within the interactions of simulated neurons in response to simulated images of objects. The behavior of these structures mimics the visual phenomena of just noticeable differences and grouping by proximity, human V1 fMRI data under conditions of real and apparent motion, object constancy during image rotation and changes of image size and orientation, and a nonlinear phenomenon (hysteresis) that characterizes human participants' reports of object unity. The most recent simulation results from our laboratory revealed that these structures are produced by actively coupled clusters of neurons, and this finding led to the suggestion that coupling clusters that are stimulated by a visual prosthesis might unify the phosphenes that are produced by those clusters. In this presentation we show how a connection between neural interactions and phosphenes can naturally arise using category theory. Certain aspects of electrochemical interactions among neurons can be composed to form categories that represent phosphene unity and the relative positions and relative lightness of phosphenes in visual space. The clinical application of our research findings, guided by the category theory model, to visual prosthetic devices would allow us to test and improve both our neural network simulations and the model. A goal of this research is to enable blind individuals with cortical implants to see unified objects.

Keywords: Category theory, hard problem, neurotechnology, visual prosthesis.

1. Introduction

Research having the goal of developing a useful visual-cortical prosthesis began nearly 60 years ago (see reviews by Bosking, Beauchamp, & Yoshor, 2017; Lewis & Rosenfeld, 2016). These devices employ the output of a small video camera to electrically stimulate clusters of neurons in V1. Implant recipients report seeing phosphenes (bright spots) at positions in the environment corresponding to the electrode positions in V1. A single phosphene is a unified percept, and separating electrodes sufficiently yields multiple phosphenes. As a result, implant recipients do not see unified objects, and must infer what object has given rise to the pattern of phosphenes that they perceive.

A primary goal of our research is to improve prosthetic vision. Computer simulations of a small, simplified model retina and V1 have been used to study how visual objects like phosphenes can arise (Pavloski, 2015). This research shows that persistent structures emerge within the interactions of simulated neurons in response to simulated images of objects. Furthermore, the behavior of these structures mimics several visual phenomena: just noticeable differences and grouping by proximity, human V1 fMRI data under conditions of real and apparent motion, object constancy during image

rotation and changes of image size and orientation, and a nonlinear phenomenon (hysteresis) that characterizes human participants' reports of object unity (Bright & Pavloski, 2015). Our most recent simulation research (Pavloski & Lamb, 2017) revealed that these structures are produced by actively coupled clusters of neurons, and this finding led us to suggest that coupling clusters that are stimulated by a visual prosthesis might unify the phosphenes that are produced by those clusters.

Two issues must be addressed before prosthetic vision implant recipients are asked to participate in research on unifying phosphenes. First, we need empirical evidence that unifying phosphenes will improve prosthetic vision. Fortunately, this can be studied in sighted participants using simulated prosthetic vision (Chen, Suaning, Morley, & Lovell, 2009a,b). In fact, our laboratory is currently studying the degree to which unifying simulated phosphenes improves sighted participants' ability to identify images of objects presented at different locations in the visual field. Second, it is important to begin work on a theory that guides research by linking the experience of phosphenes and the operation of neural networks. Such a linkage would address what Chalmers (1996) famously named the 'hard problem' of understanding the relationship between specific qualities of experience and the behavior of physical quantities (also see Hut & Shepard, 1996; Hut, Goodwin, & Kauffman, 1997). Although this is a formidable task, the visual experience of a blind recipient of a cortical implant consists of only simple visual qualities that are amenable to description by a relatively simple model. In the remainder of this paper, we will take advantage of this simplicity to suggest a way in which phosphenes and neural network interactions might be linked. Our theory draws on some basic ideas from the mathematical theory of categories to show that interactions among neurons can yield categories that also model essential features of prosthetic visual experience.

2. A category theory model of the experience of phosphenes

The left panel of Figure 1 depicts the experience of a line drawing of a human face. In addition to the features of the face, the perceiver has visual experiences of distance and direction from the perceived self to the face, of distance and direction from one feature to another, as shown by arrows, and of the relative lightness of different features. As shown in the right panel of Figure 1, the visual experience of a blind recipient of a V1 implant is essentially limited to distance, direction, and lightness.

Figure 1. The experience of phosphenes (right) includes spatial relations and differences in lightness but does not include more complex qualities provided by natural vision (left). See Acknowledgement.
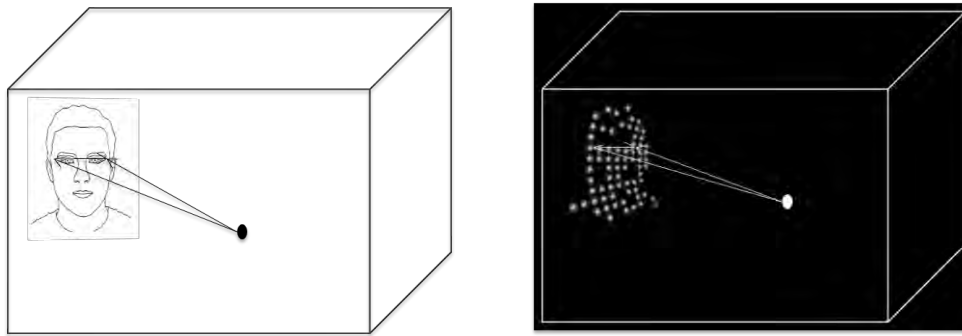
Spatial relations are amenable to a simple mathematical description as vectors and lightness can be treated as a scalar quantity. Thus, a phosphene can be described as a unified area of scalar quantities. It is a straightforward exercise to show that the experience of phosphenes, as illustrated in Figure 1, can be modeled as two, naturally-related mathematical categories. In Figure 2, the lightness category illustrated on the left consists of two objects, L_1 and L_2, each depicting a unified light patch of visual space, and of arrows, each depicting differences in lightness: $L_1 - L_1 = L_2 - L_2 = 0$, and $L_1 - L_2 = -(L_2 - L_1)$. The spatial relations category shown on the right consists of three objects, A_1 and A_2, depicting corresponding areas of visual space, and the area of the perceiving self, A_S. In this category, arrows depict bundles of spatial vectors. For example, $A_S A_1$ denotes a collection of spatial vectors originating at the perceiving self and ending at area A_1. An arrow consisting of vectors that begin and end at the same area is an identity, i. For example, $A_1 A_2 + A_2 A_1 = i = A_1 A_1$.

Every category must meet four conditions (Awodey, 2010): (1) Given an arrow from object a to object b and given another arrow from b to c, an arrow from a to c must exist. (2) Composition of arrows is associative, so the positioning of parentheses used to denote the order of operations is immaterial. For example, $A_S A_1 + (A_1 A_2 + A_2 A_S) = (A_S A_1 + A_1 A_2) + A_2 A_S$. (3) For each object there is an identity arrow

beginning and ending at the same object. (4) Identity arrows act as units in an algebra of arrows (e.g., zero in addition and unity in multiplication). For example, $A_SA_S + A_SA_1 = A_SA_1 + A_1A_1 = A_SA_1$. It is hopefully clear that the arithmetic of scalars makes our lightness graph a category and that vector addition makes our spatial relations graph a category. The "sense" that we have of differences in lightness is embodied in the scalar algebra of arrows in our lightness category, and the "sense" that we have of spatial relations is embodied in the vector algebra of arrows in our spatial relations category. Our senses of lightness and spatial relations are themselves meaningfully related. Each area of visual space has a lightness, each lightness is associated with one or more areas, and spatial vectors correspond to differences in lightness. These relations are described by the two functor arrows that point from each category to the other. Our task is to determine how interactions among neurons can lead us to these categories. In what follows, the spatial relationships between the perceived self and phophenes will not be included so that relations among phosphenes can be adequately treated in this brief presentation.

Figure 2. A lightness category (left), a spatial relations category (right), and the functors (center arrows) that relate differences in lightness with distances and directions in visual space.
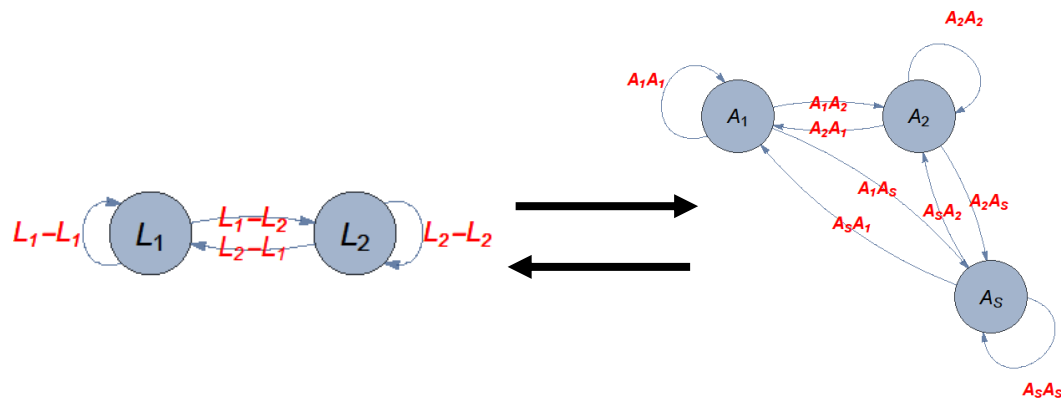
3. How visual-spatial distance and direction can exist in dynamic structures created by neural network interactions

We begin by considering how distances might be embodied in the strengths of activated, neural network synapses. It is assumed that spontaneous activity within the network is sufficient to maintain the activation of recurrent synapses via intermittent action potentials and thereby sufficient to maintain the geometry of visual space. The left panel of Figure 3 depicts three neurons in a richly interconnected network that models some connections in V1. The line that joins each pair of neurons (e.g., N_1 and N_2) is drawn so that its length is inversely proportional to the strength of synaptic activation between them. The relationships between the three lengths require that the neurons lie on a planar surface. The inverse relationship between synaptic activation strengths and line length was also used to draw the graphs in the middle and right panels. Each of these graphs contains 405 neurons, but there are many more synapses in the network on the right. It should be noted that both of these graphs imply that definite distances exist between neurons that are not joined by synapses; thus, each is completed to form a category. In this way, neural network interactions can form a category of distances. However, these categories contain nothing regarding direction; each graph might be rotated in any way in three-dimensional space while preserving all distances and relations among distances.

Figure 3. Relations among the strengths of activated synapses can create a network of geometric distances.
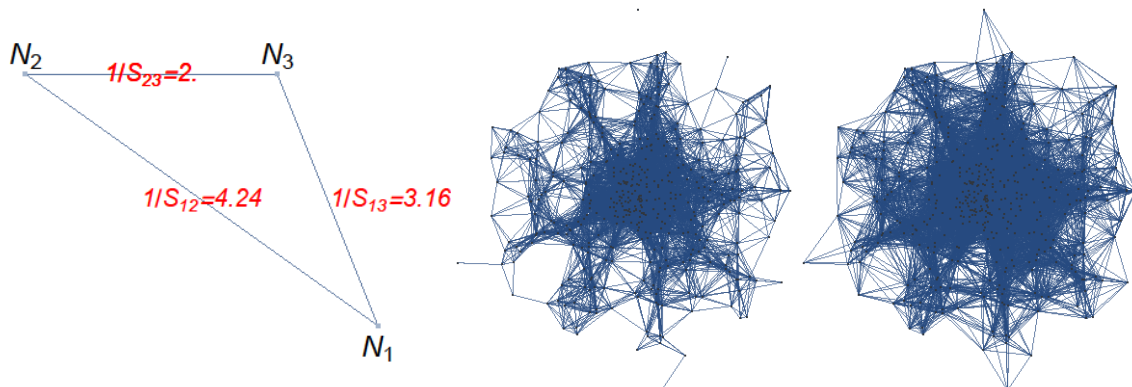
Visual-spatial directions can arise by including relations between V1 network neurons and neurons in a network that represents the head. For example, suppose that the strength of one synaptic connection between each V1 neuron in our network and a head network is inversely proportional to distance to the top of the head and that the strength of a second connection is inversely proportional to its distance to the right side of the head. The resulting network of additional activated synaptic strengths would require that the graphs shown in Figure 3 be oriented in a particular way with respect to the head. These activated synaptic strengths would provide positions for the neurons in the network as shown in Figure 4 (left panel). They would transform each line that joins a pair of neurons in Figure 3 into a pair of vectors. The result would be a category of vectors, like the spatial relations category shown on the right side of Figure 2. Although the objects in the category of vectors are points rather than areas, it is likely that random variations in the strengths of synaptic activations occur, and these would over short periods of time replace points with small areas.

Figure 4. Positions of the 405 neurons as determined by the strengths of activation of synapses to a network representing the head (left), and representation of the lightness of two phosphenes (right).
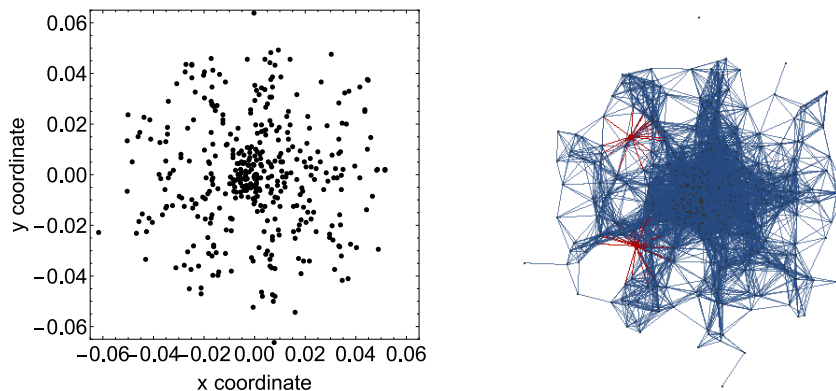
4. How lightness and discrete phosphenes can be produced, and how extrinsic coupling can unify discrete phosphenes

Electrically stimulated cortical neurons are highly activated (Bosking, Beauchamp, & Yoshor, 2017). A scalar variable will be used to represent the activation of each neuron by electrical stimulation. Neurons within a stimulated region excite and inhibit one another more frequently than those not being stimulated, but the strengths of activated synapses are assumed to remain constant. Thus, the geometry of visual space is not affected. A graph portraying such a situation is shown in the right panel of Figure 4, in which the large red vertices depict neurons at the center of two excited clusters of neurons and in which red line segments join each neuron to its excited neighbors. Activation differences are scalars, so the network-wide result of electrical stimulation is an algebra of scalar values.

This allows us to recognize a new object that consists of a set of pairs of neurons with high mutual activation. Such a set models a phosphene 'figure' in the limited visual experience of prosthetic vision, and 'ground' is an object consisting of a set of pairs of neurons with low mutual activation. An arrow in this category of phosphene objects consists of scalar differences between the activations of neurons in each of the objects. For the two highlighted, highly activated clusters of neurons shown in Figure 4, in isolation, this algebra is that of the lightness category shown on the left side of Figure 2. The category would, of course, be much larger for the network of 405 neurons shown in Figure 4, and it would be very much larger for the situation shown in the right panel of Figure 1.

Finally, we now consider how the activities of neurons that compose distinct phosphenes might be coupled in order to unify those phosphenes. Consider the effects of cycling regularly between the sources that are used to modulate electrical stimulation of V1 neurons in locations A and B, as depicted in Figure 5. The pulses of stimulation shown on the center horizontal line are modulated by video input, and are delivered through electrodes that activate neurons in areas A and B during time interval 1. During the subsequent time interval 2, electrode B is used to record the activity of surrounding neurons, and this activity is used to modulate stimulation through electrode A. Stimulation of both sites is again modulated by video input during time interval 3, and during time interval 4 the activity recorded using electrode A is used to modulate stimulation of area B. Repeating this cyclic pattern should causally couple the neuronal activities that produce discrete phosphenes at sites A and B. We propose that such extrinsic coupling will effectively unify the two distinct phosphene objects into a single phosphene object.

Figure 5. Video input modulation of neurons via electrodes A and B might be supplemented by intermittent modulation by the activities of neurons at one site by the activities of neurons at the other site.
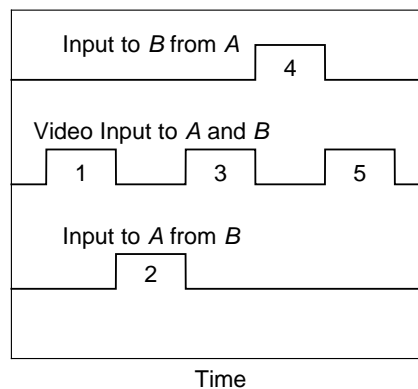
5. Conclusions

The goal of this work was to provide models of the simple aspects of experience available in prosthetic vision in order to determine if the same models can describe the interactions of neural networks. We showed that a category of scalar relations, like the lightness category, and a category of vector algebra relations, like the spatial relations category, result from neural interactions that occur in richly interconnected recurrent neural networks. These categories were used to propose a theory of phosphenes, and it was predicted that extrinsically coupling the neural activities underlying two distinct phosphenes would unify those phosphenes. This prediction is based on earlier simulation research and on a theory of the origin of phosphenes. Reports of implant recipients who agree to participate in research on coupling would provide data that are crucial in our efforts to improve prosthetic vision by unifying appropriate pairs of discrete phosphenes, and that would provide an initial test of the underlying theory.

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ENHANCING VERBAL REASONING OF SCHOOL CHILDREN THROUGH CHESS LEARNING

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Abstract

Verbal reasoning embraces the collective ability of a person to comprehend the meaning of verbal information in whatever forms it is presented, enabling the individuals' thought-processes consequently to further process the given information. It is the process of gathering information, analyzing, thinking and evaluating it to form ideas, beliefs, and assumptions and widen knowledge on the particular subject. While the impact of chess training on intelligence, creativity and working memory has been studied, its impact on verbal reasoning needs to be explored. This study examined the outcome of 1-year systematic chess training on the verbal reasoning of children. A pretest–posttest with control group design was used, with 70 children in the experimental group (Mean age-11.05; SD-2.49) and 81 children in the control group (Mean age-11.10; SD-2.37). The sample consisted of children studying in 2 government schools and 2 private schools (grades 3–9), which included both the genders. The experimental group underwent weekly chess training for an hour, while the control group was involved in other games offered in school such as cricket, football, hockey etc. Verbal reasoning was measured by Binet–Kamat Test of Intelligence. The chess training intervention included Winning Moves Chess Learning Curriculum, video lectures, demonstration board learning, on-the-board playing and training, chess exercises through workbooks studying tactical and end game positions by case studies. They also recorded the games by writing score sheets and the games were analyzed. ANCOVA revealed significant gains in verbal reasoning in the experimental group compared to the control group. There was a significant improvement in overall Intelligence, revealed by t test for the experimental group. No significant interaction effects were seen between intervention and gender and type of school on verbal reasoning. The present study establishes a link between chess training and verbal reasoning. Strengthening verbal intelligence and reasoning skills lead to important outcome in the child's overall development and academic performance.

Keywords: Chess training, cognitive development, school children, processing speed.

1. Introduction

The ability to gather, analyze and understand information in the form of words and languages is called verbal reasoning. It involves reading, writing, speaking and listening, and forms an integral part of a formal education. Verbal reasoning is one of the four basic cognitive skills that are essential to communicate efficiently with everybody around us and arrive at conclusions and make decisions based on the information available. Any learning process essentially involves verbal reasoning through word based concept-formation. Verbal reasoning includes the collective ability of a person to understand the meaning of certain information in whatever forms it's presented, enabling his or her thought-processes thereafter to learn the given information. It is the process of gathering information, analyzing, thinking and evaluating it to form ideas, beliefs, and assumptions and develop knowledge on the particular subject. Most children develop verbal reasoning right from 3-4 years of age. It is an important tool for academic learning and for success in one's professional life.

The impact of chess on cognitive functions and academic performance has been fairly well established (Palm, 1990; Smith and Cage, 2000; Ferguson, 2000; Trinchero, 2013). It is evident that chess makes children smarter (Kazemi et al, 2012). It does this function by teaching following skills:

- Focusing: Children are taught to learn about the advantages of observing and focusing.
- Visualizing: Children are encouraged to imagine a series of actions before it occurs by training

• Thinking ahead: Children are taught, first of all, to think and later to move on or act. Chess helps to develop calmness or attentiveness.

• Weighing options: Children learn not to impulsively respond but to check the other choices and make decisions based on evaluations of all options

• Analyzing concretely: Children learn to assess the results of particular actions and arrangements.

• Thinking abstractly: Children learn to apply patterns to various or related situations especially when they discover them in one specific context.

• Planning: Children are taught to define long-term goals and do their best to achieve them.

Given the academic benefits of chess, Meyers (2005) asserts that "we have brought chess to school because we believe that it can directly contribute to academic performance.

A pioneering study conducted by Frank (1973) in Zaire study 92 students, aged 16-18 were played chess. The chess-playing experimental group showed a significant advancement in spatial, numerical and administrative-directional abilities, along with verbal aptitudes, compared to the control group. The improvements held true regardless of the final chess skill level attained.

In a significant early study, Ferguson (1988) assessed the cognitive skills of children in a 6th grade self-contained classroom who participated in chess. Students played daily between the end of September and the end of May and were administered a pre and post test using the Test of Cognitive Skills Memory subtest and the Verbal Reasoning subtest of the California Achievement Tests. A total of fourteen students completed both the pre and posttests. Statistical analysis was conducted using the t-test, comparing the experimental group with national norms. The experimental group demonstrated statistically significant improvement in both Memory ($p > .001$) and Verbal Reasoning ($p > .002$).

Eberhard (2003) found statistically significant improvements of verbal reasoning abilities were found for all students in the experimental chess instruction group, but not for the control group that did not receive chess instruction

Joseph, Easvaradoss & Solomon (2016) examined the effect of chess training on academic performance of middle school children in rural India. The impact of chess on various academic courses of 100 students of sixth grade was examined. The sample consisted of with an intervention group undergoing chess training and a control group. Statistical tests were carried out to examine whether the performance of students has improved after chess intervention. The results of the paired samples t- test analysis showed significant improvement in academic performances of students in English, social studies and science, after a year of training in chess skills.

Joseph et al. (2016) assessed the impact of chess intervention on the IQ scores of children and analyzed the cognitive functions that contributed to the IQ gain. Eighty-six school children, boys and girls in the age group 4–15 years, undergoing chess training in academy were assessed using Binet–Kamat Test of Intelligence. Chess intervention consisted of standardized biweekly training sessions of two hours duration over a period of one year. Paired *t*-tests and regression analysis were carried out. Significant increases were observed in IQ, and regression analysis indicated that nonverbal reasoning, language, and memory significantly contributed to the dependent variable IQ.

While a number of studies have established that chess learning clearly improves cognitive functioning and academic performance its impact on verbal reasoning is yet to be ascertained. It is likely that an increase in verbal reasoning is one of the basic factors that support these gains. However, very few studies appear to have focused on the role of chess training in strengthening verbal reasoning.

It is hypothesized that systematic chess training would significantly increase verbal reasoning in children. The objective of the study was to assess the impact of weekly chess training on the verbal reasoning of school going children.

2. Methodology

The research design used for the study was pre-test post-test with control group design (Edwards, 1985; Kerlinger, 1973). The independent variable was the Chess training program and the dependent variable was verbal reasoning of children.

The sample consisted of school going children with 70 children in the experimental group and 81 children in the control group. The children were selected based on the following selection criteria:

• Children who are studying in schools
• Both genders
• Age range between 6 and 14 years (grade 3 to grade 9)

The mean age for experimental group was 11.05 years (SD=2.49) and for control group was 11.10 years (SD=2.37). The experimental group consisted of 27 girls and 43 boys and the control group consisted of 29 girls and 52 boys.

2.1. Tools

Verbal Reasoning was assessed using the Binet–Kamat Test of Intelligence. The Stanford revision of the test was adapted as the Binet–Kamat Test of Intelligence to suit the Indian children. The present version consists of various verbal and performance tests that can be administered to children and adults from ages 3 to 22 years. Validity of the test shows that when a fourfold table was drawn up and the correlation of the pluses and minuses of each test with mental age as obtained by the whole scale was found, the correlation coefficients of the tests were generally higher than 0.70. Correlations between IQ (as determined by the scale) and the teacher's estimates were found to be nearly 0.50, which is fairly high considering the variability of the teacher's estimates.

2.2. Chess training methodology

The training methodology comprised of Winning Moves Chess Learning Program (Joseph, 2008) Episodes 1–22, lectures with the demonstration board, on-the-board playing and training, chess exercise through workbooks (Chess school 1A, Chess school 2, and tactics) and working with chess software's. Further student's games were mapped using chess base software and the brain patterns of the child were understood. They were taught the ideas behind chess openings and exposure to classical games were also given. The children participated in mock as well as regular tournaments.

3. Procedure

Baseline assessment of verbal reasoning was done after obtaining informed consent. Reassessment was carried after an average duration of one year. Psychologists were trained to administer the test in a uniform standardized method to minimize the testing error. Children with an IQ below 80 were excluded from the sample.

Clustering technique was used to form the training groups of 6 to 8 children. The chess training consisted of once a week chess classes conducted for one hour during school hours at the end of the day. The children were given a standardized Winning Moves Chess Learning Program (Joseph, 2008) and played at tournaments also.

4. Results

The analysis was carried out using SPSS. Analysis of covariance was carried out to establish the significance of the difference between the experimental and control groups on the verbal reasoning scores following intervention, holding the pre intervention scores as covariate.

Table 1. Represents the significance of the difference between the means of the experimental and control groups on processing speed using Analysis of co-variance.

Scores	Assessment	Mean and Standard Deviation	
		Experimental	Control
Verbal Reasoning	Pre	2.80 (3.767)	2.59 (3.471)
	Post	5.63 (4.985)	3.68 (3.748)

*p<0.05

Table 2. Dependent variable: post verbal reasoning

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1252.293[a]	2	626.147	53.615	0.000
Intercept	658.081	1	658.081	56.35	0.000
PreVerbalReasoning	1109.575	1	1109.575	95.01	0.000
EXPCON	120.591	1	120.591	10.326	0.002
Error	1728.422	148	11.679		
Total	6152	151			
Corrected Total	2980.715	150			

Table 1 indicates that there was a significant effect of intervention on verbal reasoning at post-intervention (p<.05). This shows that the mean verbal reasoning increased in the experimental group following intervention, compared to the control group.

5. Discussion

While the impact of chess on cognitive functions and academic performance has been widely researched and clearly established (Palm, 1990; Smith and Cage, 2000; Ferguson, 2000; Trinchero, 2013), its influence on strengthening verbal abilities in general and verbal reasoning in specific remains unresearched to a great extent.

The findings of the present study are noteworthy because chess playing has clearly shown a significant increase (p<.05) in verbal reasoning scores. The tasks on which changes were measured are Absurdities subtest and the problem question subtest.

The chess intervention that was carried out had a strong reasoning component where the child thinks through and reasons out the best possible moves given a certain playing position. Furthers they are trained to record notations of their games, discuss and analyze their moves from their scoresheets. The chess notation is a two dimensional learning strategy where they record the movement of pieces, noting the column and the rows. Further, while analyzing a position, a chess player thinks using the notations by verbalizing it sub vocally. These activities sharpen their abilities and strengthen their ability to think clearly and logically resulting in an enhancement of their verbal reasoning ability. These outcomes are likely to occur in chess an intervention which actively incorporates a methodology where the child/player transcribes the movement of pieces into a language (chess notations).

Joseph, Easvaradoss & Solomon (2016) in their study measuring academic performance following chess training have reported increases in English and other subjects. The improved English scores could probably reflect a strengthening of the underlying augmented verbal reasoning skills. It is likely that chess training has an impact on not merely verbal reasoning but verbal ability such as language, reading, and comprehension and so on. The children in Ferguson (1998) study demonstrated an increase in their reading scores.

6. Implications

Built in to the chess training methodology used in the present study is a component that strengthens verbal ability and reasoning. Such a curriculum has obvious benefits leading to academic, cognitive and whole person development of the child.

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TURNING GOALKEEPERS INTO PENALTY KILLERS THROUGH MENTAL TRAINING: A PREDICTIVE-PROCESSING THEORY APPROACH

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Abstract

Champions League soccer matches are often decided through penalty shoot-outs. Elite goalkeepers block ~18% of all penalty's (and barely any well-kicked penalty). An improvement of just a few percent (in accuracy or response speed) may make the difference between winning and losing. Predictive processing theories assume that inferring another's action intentions requires a forward model of that agent's action, which can be obtained through learning by simulation. In an initial series of lab-based studies we have confirmed the prediction that goalkeepers benefit from acquiring a rich forward model of penalty *kicking*. Performance improved when goalkeepers trained penalty kicking and when they used first-person motor imagery to imagine what the movements observed in Champions League penalty kickers 'feel like'. In an fMRI study, a pattern classifier was trained to distinguish motor imagery from visual attention strategies during penalty watching. Using a cross-decoding approach, the classifier was then used to determine whether observers used motor imagery or visual attention networks during an active penalty direction anticipation task that was entirely independent of the training task. Correctly anticipated ('saved') penalties were classified as imagery in 2/3 of trials, suggesting engagement of the motor imagery network. Thus, goalkeepers do engage preferentially in motor imagery to infer action intentions of penalty kickers and use the ensuing predictions to make successful saves.

Keywords: Predictive processing, soccer, mental training, neuroimaging.

ANALYSIS OF HUMAN BEHAVIOR FOR THE DEVELOPMENT OF NEW TECHNOLOGIES ABOUT INDOOR THERMAL COMFORT

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Abstract

Within the Domotics field, technologies are deeply related to the end users' mind and its way to perceive, remember, learn, communicate and pay attention, in a life-span perspective. The exploration of the different aspects of human behavior in daily life contexts can contribute to the development of smart devices, in order to improve people's quality of life. Initially, the research focused on aspects that have a direct impact on Indoor Environmental Quality (IEQ). Then, we concentrated on temperature and we built a checklist that can help collecting data about the different behaviors and the physical reactions a user has when feeling uncomfortable in the environment around him/her. We are using it in various indoor environments and we have collected more than 500 observation sheets until now. In addition, we contacted 5 healthcare centers to make field observations and we are conducting interviews with health professionals, in order to gather information about behaviors and live reactions of the elderly. We have carried out a first qualitative analysis of all data. The checklists' analysis shows that, both in terms of heat and cold, actions are more frequent applied to the person him/herself rather than to the environment. Men seem to suffer from the heat more than women (92,6%) and women seem to feel the cold and to dress warmer than men (66,1%). What distinguishes our study is that our starting point is the human being. All this information will be useful for smart devices developers. The research is still underway.

Keywords: Human behavior, domotics, thermal comfort, gender differences.

1. Introduction

In everyday life, people who adjust indoor devices, at home as well as at the office, are not fully aware of what they are doing and how they are doing it. So, the plan to design a multifunctional (temperature, light, sound, air, etc.) indoor system was born, starting not from the system itself, but from the human behavior. The central idea of this research is that the devices have to interpret the end users behaviors on the basis of their perceptions of comfort and / or discomfort, in terms of temperature, lighting, etc., in indoor environments of everyday life, rather than people having to adjust the devices themselves, often without achieving the desired well-being. According to the Domotics philosophy, the houses, if skillfully designed, can help to save mental energy and money, to pollute less and not to waste time, dedicating it for social activities and improving the quality of human lives. The elderly and the people with disabilities also benefit from a domestic environment with devices that make life easier. Recent studies have dealt with this topic. "An intelligent domotics system to automate user actions" (Kcomt Ché et al., 2010) develops a similar idea, but only from a technological point of view. "Gender differences in office occupant perception of indoor environmental quality (IEQ)" (Kim et al., 2013) points out a significant association between female gender and dissatisfaction with thermal environment. What differentiates our research from the previous ones is that our starting point is the human being. The analysis of human behavior is achieved by adopting an ecological perspective (Bronfenbrenner, 1992) and using observation in daily contexts, where human actions normally occur and the researcher exerts a minimum level of control on his/her object of study. Starting from the concept of the end user as a sensor that guides the research and the design of smart objects, the research objective is the development of systems able to provide people with different needs with the ideal comfort.

2. The project

The project is developing within an Industrial Research Program (EUREKA) – in the Marche region (central Italy) – funded by the University of Macerata and the company MAC srl, located in

Recanati (Mc). MAC designs, develops and produces cutting edge electronic systems and devices, putting the user experience at the center of its projects. The central idea of this research was conceived by MAC, that then asked the University of Macerata to collaborate with a humanistic contribution. Starting from the concept of thermal comfort, we have been working on this project for over two years and we are already considering further possibilities of application of the methodology we are testing.

3. Objectives

We started with a research question: "Is it possible to create the ideal comfort (thermal, luminous, acoustic, etc.) in an indoor environment, while minimizing the end user's activity when he/she is searching for it?". To answer this question, we set the following objectives: 1. To profoundly study different aspects of human behavior in everyday life; 2. To collect and analyze this data in order to design a flexible, smart and multifunctional indoor system, able to provide the end users – in particular, those with problems of autonomy – with the ideal comfort level, in private and institutional environments.

4. Methods

4.1. Observations in different indoor environments
We built a checklist in order to detect the different behaviors and physical reactions a user has when feeling uncomfortable with the environment around him/her, specifically indoor ones, in terms of temperature. Since April 2016, we began making observations in various indoor environments, public and private - houses, offices, universities, etc. - both in Italy and abroad. We also began recording date and place of observation, age and gender of the observed people, as well as indoor and outdoor temperature of the examined environment.

4.2. Observations in 5 healthcare centers
We contacted 5 healthcare centers (nursing homes and rehabilitation centers) in the center of Italy, that were selected on the basis of the regional offering and the will to participate in this project. Since October 2016, we began making field observations through the checklist to collect data about behaviors and live reactions regarding temperature, light, security, etc. of the elderly that live in these facilities.

4.3. Interviews with health professionals
According to a combination of skills, we are conducting interviews with 6 categories of health professionals – Doctors; Psychologists; Nurses; Nursing Assistants; Physiotherapists; Social Educators – to gather information based on their direct experience with the context and the people who inhabit it.

5. Research instruments

5.1. Checklist
We built a checklist in order to answer the questions: How does a human subject behave when feeling (too) hot or (too) cold in a certain space with a defined indoor and outdoor temperature? What kind of actions does he/she perform on the person him/herself and/or on the environment?

5.2. Interview
Health Professionals: We devised an interview in which we asked to analyze a list of possible behaviors that an elderly person could implement in an indoor environment and to specify which ones could be perceived as symptoms and, eventually, symptoms of what type of discomfort or disease.

6. Data collection

We have collected 500 observation sheets in different indoor environments (universities, restaurants, offices, houses, etc.). We gathered 75 observation sheets in 5 healthcare centers: Fondazione I.R.C.E.R. - Assunta of Recanati (MC); Villa Letizia of Civitanova Marche (MC); Santo Stefano of Porto Potenza Picena (MC); Casa Hermes of Loreto (AN); Casa di Ospitalità of Castelraimondo (MC). We have also collected 50 interviews with health professionals (doctors, psychologists, nurses, nursing assistants, physiotherapists, social educators).

7. Data analysis

Of the three sections of the research, in this paper we concentrate only on the 500 observation sheets, collected in different indoor environments. We conducted a first descriptive and correlation analysis. All the observations and interviews are still in progress and their analyses too.

8. Results

8.1. The sample

We focus on the 500 observation sheets and on the differences between males and females, regarding both heat and cold. The sample is composed of 378 females and 122 males. We have weighted all the detected frequencies since the number of women in this study is greater than that of men. The average age of the observed people is 40,9 years.

Table 1. The environments.

ENVIRONMENTS	
ITALY	**NUMBER**
University (An, Mc, Fi)	121
Restaurant (Mo, Mc, Ar, Fi, Re, Ci, Po, Si, ecc.)	106
Office (Re, An, Mc)	96
Healthcare center (Lo, Re, Ppp, Ci)	34
Train (Pe, Ri, Bo)	19
High school (Mc)	17
House (An, Ppp)	17
Church (Am)	16
Hotel (Po)	15
Medical practice (Ppp)	5
CASB Library (Mc)	5
Hospital (Ar)	5
Bus (Ap)	3
Flower shop (Ppp)	3
Mechanic (Ar)	2
Post office (Ppp)	1
Coffee shop (Ppp)	1
Police headquarters (Mc)	1
SUB-TOTAL	**467**
ABROAD	**NUMBER**
University (Ma, Leu, Li, Am, SC)	27
Hotel (SC)	3
Office (SC)	2
Nursing home (Leu)	1
SUB-TOTAL	**33**
TOTAL	**500**

The observations were made both in public (352) and private (148) environments.

8.2. Heat

Table 2. Heat - The eighteen most frequent detected behaviors.

HEAT	FREQUENCIES					
	M	**WEIGHTED**	**%**	**F**	**WEIGHTED**	**%**
He/she communicates it verbally	9	0,074	**7,4**	17	0,045	**4,5**
He/she blushes	0	0	0	3	0,008	0,8
Actions on the person him/herself						
He/she takes off clothes	35	0,287	**28,7**	47	0,124	**12,4**
He/she fans him/herself with hands / paper	4	0,033	**3,3**	70	0,185	**18,5**
He/she wipes his/her sweat with hands / handkerchief	15	0,123	**12,3**	19	0,050	**5**
He/she rolls up the sleeves of shirt / sweater	14	0,115	**11,5**	5	0,013	**1,3**

He/she unbuttons the shirt	15	0,123	**12,3**	0	0	**0**
He/she pulls up the sleeves of clothes	1	0,008	**0,8**	13	0,034	**3,4**
He/she puts hair up	0	0	0	9	0,024	2,4
He/she gets out of the room	4	0,033	3,3	2	0,005	0,5
He/she drinks (water / cold drink)	4	0,033	3,3	2	0,005	0,5
He/she moves the sweater collar away	0	0	0	4	0,010	1
He/she touches his/her face	0	0	0	3	0,008	0,8
He/she unties the jacket	0	0	0	3	0,008	0,8
He/she moves away from the sun, that filters through the window	1	0,008	0,8	0	0	0
Actions on the environment						
He/she opens door / window	7	0,057	**5,7**	20	0,053	**5,3**
He/she adjusts the thermostat	2	0,016	1,6	1	0,003	0,3
He/she turns on the dehumidifier / fan / air-conditioning	2	0,016	1,6	1	0,003	0,3
TOTALS	113	0,926	**92,6**	219	0,579	**57,9**

The eight most significant behaviors (f > 10) are: "He/she takes off clothes", "He/she fans him/herself with hands / paper", "He/she wipes the sweat with hands / handkerchief", "He/she opens door / window", "He/she communicates it verbally", "He/she rolls up sleeves of shirt / sweater", "He/she unbuttons shirt" and "He/she pulls up sleeves of clothes".

8.3. Cold

Table 3. Cold - The sixteen most frequent detected behaviors.

COLD	FREQUENCIES					
	M	**WEIGHTED**	**%**	**F**	**WEIGHTED**	**%**
He/she sneezes	9	0,074	**7,4**	42	0,111	**11,1**
He/she communicates it verbally	2	0,016	**1,6**	19	0,050	**5**
He/she shivers	2	0,016	**1,6**	12	0,032	**3,2**
He/she coughs	4	0,033	3,3	5	0,013	1,3
Actions on the person him/herself						
He/she puts on clothes	7	0,057	**5,7**	117	0,309	**30,9**
He/she rubs hands / arms / shoulders	3	0,024	**2,4**	26	0,069	**6,9**
He/she buttons up the shirt	4	0,033	3,3	2	0,005	0,5
He/she unrolls the sleeves of shirt	5	0,041	4,1	0	0	0
He/she drinks (hot drink)	1	0,008	0,8	4	0,010	1
He/she turns the jacket collar up	2	0,016	1,6	3	0,008	0,8
He/she rubs / blows his/her nose with handkerchief	0	0	0	2	0,005	0,5
He/she puts on the jacket hood	0	0	0	1	0,003	0,3
Actions on the environment						
He/she closes door / window	2	0,016	**1,6**	11	0,029	**2,9**
He/she opens the door (cf. air-conditioning)	1	0,008	0,8	3	0,008	0,8
He/she adjusts the thermostat	2	0,016	1,6	1	0,003	0,3
He/she opens curtains / shutters to let the heat in	0	0	0	2	0,005	0,5
TOTALS	44	0,361	**36,1**	250	0,661	**66,1**

The six most significant behaviors (f > 10) are: "He/she puts on clothes", "He/she sneezes", "He/she rubs hands / arms / shoulders", "He/she communicates it verbally", "He/she shivers" and "He/she closes door / window".

9. Discussion

Both in terms of heat and cold, actions are more frequent applied to the person him/herself rather than to the environment. The behavior with the overall highest total frequency, regarding heat, is to take off clothes (41,1%) and, regarding cold, to put on clothes (36,6%). While in the first case there is a male prevalence, in the second case the behavior is more typically feminine. Verbal communication shows a higher frequency regarding heat (11,9%) than cold (6,6%).

9.1. Heat

Table 2 indicates that the most typically feminine behaviors are: "She fans herself with hands / paper" (18,5%), "She pulls up sleeves of clothes" and "She puts hair up". The following are the most typically masculine behaviors: "He takes off clothes" (28,7%), "He wipes his sweat with hands / handkerchief", "He unbuttons the shirt", "He rolls up his sleeves of shirt / sweater" and "He communicates it verbally". The behavior of opening door / window shows a quite balanced frequency between men and women, although there is a slight male prevalence. Men seem to take more actions on the environment than women ("He opens door / window", "He adjusts the thermostat" and "He turns on the dehumidifier / fan / air-conditioning"). In summary, regarding heat, table 2 shows that men tend to perform more behaviors than women. Men seem to suffer from the heat more than women (92,6%).

9.2. Cold

Table 3 indicates that the most typically feminine behaviors are: "She puts on clothes" (30,9%), "She sneezes", "She rubs hands / arms / shoulders", "She communicates it verbally", "She shivers" and "She closes door / window". The following are the most typically masculine behaviors: "He unrolls his sleeves of shirt" (4,1%), "He coughs" and "He buttons up the shirt". The behavior of adjusting the thermostat still seems a behavior more masculine (1,6%) than feminine (0,3%). In summary, regarding cold, table 3 shows that women tend to perform more behaviors than men. Women seem to feel the cold and to dress warmer than men (66,1%).

10. Conclusions

The checklists' analysis shows that, both in terms of heat and cold, actions are more frequent applied to the person him/herself rather than to the environment. Men seem to suffer from the heat more than women. Women seem to feel the cold and to dress warmer than men. The intelligent systems that take into account the actions performed on the person him/herself could be more functioning than those that only consider the environment. These preliminary results confirm the concept of the end user as a sensor that guides the research and the importance of the analysis of his/her behaviors for the development of smart devices. The strengths of the research are the field analysis of real behavior in everyday life and the information obtained for the design of smart objects. The weakness of the study is the fact that more behaviors related to the female gender have been detected. We could make two hypotheses about this: 1. There would be a gender bias: the first researcher is female and it could be possible that she tends to more easily detect the behaviors of women; 2. Women generally feel more sensitive to temperature and therefore react more severely.

11. Future Perspectives

To avoid the possible errors we mentioned above, we could ask a male researcher to make our own observations, using the same checklist. In addition, we could administer a frequency scale questionnaire to a sample gender balanced but randomized by age groups, in order to evaluate the validity of the collected data. Our research group plans to proceed with:
- Observation data collection in various indoor environments;
- Interviews with health professionals;
- Qualitative data analysis, divided into age groups, seasons, environments of detection, etc.

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ATTEMPTED SUICIDE IN ADOLESCENCE: EXPERIENCE REPORT IN THE CITY OF JOÃO PESSOA, BRAZIL

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Abstract

According to data from the World Health Organization (2014) and the Map of Violence in Brazil (2014), suicide is among the leading causes of death in adolescence, only behind automobile accidents and deaths caused by increased violence (homicide, fights, deaths resulting from racial prejudice, gender and sexual orientation). The data from the Map of Violence in Brazil study (2014), the suicide rate among 15-29 year olds increased almost 10% from the year 2002 to 2014 in Brazil. The experience report seeks to reflect on the suicide attempt in adolescence from the psychoanalytic understanding. The research method was based on the proposal of elaboration of clinical facts from adolescents who had been assisted in psychoanalytic psychotherapy for at least 2 years and with at least one suicide attempt. Adolescents are between 12 and 19 years old, of both sexes and live in the urban area of Joao Pessoa, Brazil. Most are adolescents who do not seem to express greater difficulties in their social relations, are socially adapted and inserted in different contexts. They attend school and university, attend friends' birthday parties, stroll and travel. But during the course of psychotherapy, this perspective has another configuration, because the difficulties experienced by these adolescents become more evident, as well as the psychological suffering, and these difficulties assume a range of diversity and intensity.

Keywords: Adolescence, suicide attempt, psychoanalysis, contemporary world.

1. Introduction

The subject of this study - suicide attempts committed by adolescents - was chosen due to professional experience as a clinical psychologist in a private practice and also from the experience of therapeutic follow-up with the young people who committed suicide attempts. In these two professional experiences the listening of these young people brought the following restlessness: what psychic work is at stake in the suicide attempts carried out by these young people? Faced with the suffering of the adolescent who attempted suicide, strong questions are required. Do these questions promote different theoretical and clinical questions: desire to live or desire to die? Search for the other or destruction and separation of the object?

2. Global context for attempted suicide among young people

According to the World Health Organization (2017), more than 3,000 adolescents die every day, and every 40 seconds a person commits suicide in some part of the world and many others commit suicide, totaling 1.2 million deaths per year (World Health Organization, 2014). Traffic injuries, lower respiratory infections, and suicide are the major causes of death among adolescents (World Health Organization, 2017). Data from the Brazilian Map of Violence (2014) study indicate that the suicide rate among young people aged 15 to 29 years increased almost 10% from 2002 to 2014 in Brazil: from 5.1 per 100 thousand inhabitants to 5.6. Marcelli and Braconnier (1989) call suicide as the will and / or deliberate desire to kill themselves, and suicide attempt as the failure of a suicide, regardless of the cause of this failure. For these authors, there is no consensus in the psychoanalytic literature if the suicide attempt itself bears witness to a psychopathological picture or is part of the process of re-elaborating the psychodynamics of adolescence.

3. Methodology

The research method was based on the proposal of elaboration of clinical facts from adolescents who had been assisted in psychoanalytic psychotherapy for at least 2 years and with at least one suicide attempt. Adolescents are between 12 and 19 years old, of both sexes and live in the urban area of Joao Pessoa, Brazil. By clinical psychoanalytic fact is meant to be carried out by analyst and analyzing in the space of the psychoanalytic field, starting from the relation derived from the communication of the facts occurred inside and outside the analytic session, the dreams, the affective states and the analysis S action (Silva & Macedo, 2016). Likewise, the analyst's experience, the theory and the technique used are part of this construction, which allow him to attribute new meanings to the facts reported during the analytical session. This method of research is supported by the psychoanalyst's notes after the analytical session, in his memory and interpretations. Dalrymple (2014) will say that much of the work published by scholars on this subject is mathematical: writings are flooded with dense statistical tables that correlate a factor (unemployment rate, age, social class, gender, income ...) with the suicide act or the suicide attempt, without listening to what is really happening to these young people.

4. What psychoanalysis says about the attempted suicide in adolescence

Psychoanalysis should think of the suicidal act as a particular experience, there being no psychic organization that singles out and describes suicide in its entirety, and thus suicide must be understood beyond the different clinical structures (neurosis, psychosis, and perversion (Jinkis, 1996) In our clinical experience, there is no consensus regarding the diagnosis of any psychiatric disorder, since these young people underwent various treatments and school institutions or psychosocial care. Suicidal behavior commonly signals profound suffering, but not necessarily a mental illness, since most people with a mental disorder do not kill themselves (Botega, 2015). On this issue, Jeammet and Birot (1996) point out that it would do no good to try to outline a suicidal profile, since no nosographic reference can in itself characterize these behaviors in general. However, it is necessary to establish a diagnosis of the underlying psychic organization, because part of the prognosis and therapeutic modalities depart from it. Obviously without neglecting the particular family dynamics and its transgenerational identificatory games (Jeammet &Birot, 1996).

Most are adolescents who do not seem to express greater difficulties in their social relations, are socially adapted and inserted in different contexts. They attend school and university, attend friends' birthday parties, stroll and travel. But during the course of psychotherapy, this perspective has another configuration, because the difficulties experienced by these adolescents become more evident, as well as the psychological suffering, and these difficulties assume a range of diversity and intensity.

One of the most important issues in the problem of attempted suicide in adolescence is recidivism, with each new intent of suicide there is usually a greater medical severity than the previous one. Another relevant issue in these recurrences is the "suicidal equivalents", which are often neglected by the family or the social environment in which the adolescent is inserted. We call "suicidal equivalents" acts by the teenager to commit suicide and are often mistaken for accidents, automobile, drug abuse or risky situations with no apparent intentionality. Regarding this concept, Marcelli and Braconnier (1989) define suicide equivalents or suicidal behaviors as a set of behaviors in which the subject's life is endangered from the point of view of an external observer, but in which the subject denies the assumed risk. For these authors, there is a continuum in the various behaviors that put life in danger and in the dangerous conducts, passing through the suicidal equivalents, to end in the suicide attempts.

There are some points in common in these young people: difficulties in cohabiting with friends and when frustrated, tend to isolate themselves, presenting intense apathy. They present episodes of aggression and difficulties of putting themselves in the place of the other. In relation to the family they present complaints of not having a "place" next to her. The non-acceptance of the sexuality of the young person may be one of the factors that precipitated the suicide attempt, since some were victims of situations of prejudice and exclusion due to sexual orientation; as well as the lack of life project; the collection of a performance of success and productivity, since some of these young people manifested the desire and the obligation to be perfect and the difficulties encountered in dealing with the body image, since there was the eminence of keeping the bodies in a weight socially acceptable and admired by the group of equals.

Marty & Cardoso, 2008). Adolescence is a process that brings in its nucleus the pulsional awakening of the most intense psychic transformations, where impulses and defenses, narcissistic and object inversions are faced (Marty & Cardoso, 2008). It is the time of the most serious disturbances, even with the risk of breakdown, described by Laufer and Laufer (1995). These authors characterize breakdown as a moment of rupture in development, which is related to the rupture of reality. However,

this rupture with reality does not necessarily need to be a sign of a psychosis or the onset of a psychosis. The function of breakdown is to preserve the idealization of the imago of the ideal body, which is the pregenital body. Not confronted with his real body, ready to exercise genitality, the adolescent maintains the defensive organization against the possibility of relating sexually with oedipal parents. Violent attacks on the body, anorexia, and suicide attempts can be considered as ways the teenager can maintain his or her fantasy about the infant body. In the words of a 16-year-old who was in analysis, the anguish of having to live with a sexually active body and not recognizing himself in this body made him a stranger to himself: "*I get scared at night when thoughts of increase. It's like Dr, Jekill and Mr. Hide. One day, one night, another. I do not know myself anymore*".

In this perspective, can the suicide attempt among adolescents be considered as one of the outlets found by the psyche when faced with situations of intense anguish that cause the feeling of self-annihilation when the power of resistance fails? Put another way, would the suicide attempt be the expression of suffering when the capacity for growth and expansion fails? Jeammet and Corcos (2005) point out that we are witnessing today the weakening of intergenerational barriers, the greater freedom of customs, the weakening of boundaries and the dilution of values. The effect of these situations will be combined with the increasing demands of individual success, narcissistic exposition of the adolescent, and to prevent him from finding (in imposing or adhering to the values of present-day society) a way of expressing his needs (Jeammet, 2007). This question is put by an adolescent when verbalizing "*We live in a culture of radicalism, totalitarian regime of ideas. Either you are that, or you are that. I'd rather kill myself than live in a system that I can not be myself. When I was little, I had a thing of performance, of being perfect, of the requirement. It had to be more than good, it was not enough to be normal*".

The withdrawal and suspension of ripening by environmental failures can be as aggressive as a clear manifestation of aggressiveness. However, one might think that suicide or attempted suicide is an act of hope to regain the possibility of growth and maturation, in the sense that something will actualize the potential of life. The hope contained in the suicide attempt is demonstrated by a teenager when he says: "*I was living a non-life. All my life has been like this from childhood until now. It was a life with father and mother not understanding what I was saying. If I said I wanted water, they would give me food. I make an effort to be what I am not. In the attempt I hope something good happens. There is hope, it is my last trick to be happy*". In this movement of despair and hope, the suicide attempt embraces a paradox: on the one hand, it devastates and shows intense psychic suffering, on the other, it is a way of finding an outlet for this suffering.

Tubert (1999) reports that in the suicide attempt that occurs in adolescence there is a structural determination, the absence of a place where the adolescent can recognize himself and define himself as a subject, both in the family and in his social bond.

The attempted suicide that occurs in adolescence is understood by Laufer (2000) as "a particular moment of the breakdown manifestation in development and represents the adolescent belief in its own failure to continue to function and to live" (97). For this author, the suicide attempt represents a refusal of reality, and is carried out in a dissociative or transitory psychotic state, and all the activity of suicide, including less, always involves the loss of the capacity to maintain the nexus with external reality and should be considered as an acute psychotic episode (Laufer & Laufer, 1987). In the same line of thought, Lamou (2017) states that the suicide attempt witnesses an internal despair, which cannot be shared and communicated in any other way than by the ultimate solution of death. This fact is expressed by a teenager after his second suicide attempt by verbalizing "*... it is an act of despair. You do not think of anything, not the future, not the past. Sorry, it looks like selfishness.* " Or another teenager saying "*I felt like a piece of meat, an ungrateful son, I had everything. It's a tightness in the chest and it makes you want to cry. I did not want to bother anyone*".

The suicide attempt is always motivated by a fantasy and the reality of death is denied (Laufer, 2000). The fantasy that motivated the suicide attempt is often related to aggressive feelings towards parents, friends or therapist, and always contains the element of omnipotence, which allows the teenager to feel that he is in control, as if the suicide attempt and the possibility suicide protected him from intolerable feelings of despair and aggression. The attempted suicide in adolescence demonstrates the vulnerability of adolescents as a result of previous failures in their development during childhood, which leaves them exposed and unable to cope with the normal demands imposed by puberty (Laufer, 2000).

According to Laufer (2000) and Schachter (2000) there are two precipitating factors of the suicide attempt in adolescence: the first is the possibility of a change in the adolescent's life, which unconsciously represents a movement to function independently and far from the parents . Going to university, leaving parental home and getting a job are examples of such changes. The second precipitating factor is related to some event that caused adolescents to lose control of aggression and hatred, which is associated with the presence of a fragile sense of identity, which is not differentiated

from the representations of internalized parents. In this way the intense and primitive feelings of anger and hatred are felt to be immensely powerful and destructive, and so the only way to control aggression and hostile impulses is suicide. In the words of a teenager, the experience of these feelings was one of the precipitators of the attempt, because "... *I was in total despair. I was fighting with everyone who did not have the same opinion I did "or another teenager when verbalizing" I was very angry and could not sleep*".

Sometimes the attempted suicide in adolescence occurs after the first amorous disappointment. From this perspective, we can use the work of Winnicott ([1958], 1990) when he affirms that the capacity to be alone is an important indicator of emotional development and proposes that this capacity "depends on the existence of a good object in the psychic reality of the individual "(p.34). For Winnicott ([1958], 1990) the individual develops this capacity from the experience of being alone in the presence of another, that is, through the opportunity to experience a "good enough" mothering, in which the mother meets the needs of the baby, from his identification with him. For some teens, dating can be considered as the only possible way to have a freer life away from the presence of parents and family members. In the breaking of courtship, some young women become so desperate to return to family dependency, since the parents do not let her leave home alone or with her peer group, they carry out the suicide attempt as a way to achieve "*eternal freedom* ". In this way, the adolescent, faced with this new threat of reliving a situation of helplessness, where there is the impossibility of living congruently with herself, makes use of suicide, as a way to combat the situation of passivity, threat to identity and to personal integrity.

Rassial (1999) points out three main causes of suicide attempts in adolescence: the suicide attempt as an appeal, as demand, where the Other would not be able to respond to their demand, except in part. The second cause concerns suicide attempt in response to mourning or as a punishment for guilt. In a letter written by a 17-year-old boy addressed to his mother prior to his attempted suicide by poisoning, he writes: "*Mother, I'm sorry for not being this loving son, not being the son you wanted , to marry a woman and give her grandchildren.* " What is clear in this small fragment, the difficulty of this adolescent in dealing with the guilt for not fulfilling the maternal expectation, that is, if he does not correspond to this expectation, he has nothing left to live and invest in the world. In the third case, Rassial (1999) points out that suicide attempts or rationalized suicidal behavior are associated with a quest for joy. On the one hand, if adolescence is the age when all possible joys are experienced, on the other hand, insofar as the Other loses its symbolic and imaginary anchorages - in the parental figures - there is the precipitation of the Real, everyday reality, in the sense common, place of all dangers, where the consistency of the Other is sought and tested. In the discourse of adolescents with suicide attempts, it is possible to find the evocation of a world that is at once paradisiacal, monstrous, pre-symbolic and even messianic. It is in this discourse that one finds the closest proximity to psychosis: being born and dying ends up giving the same, there is no differentiation between these two passages of life (Rassial, 1999). In the words of a 15-year-old teenager, this speech seems to take the form of a joke, going around and coming back: "*I was joking to be born and die. The plan was this: it gave time there, in paradise, where everything is perfection and then it came back, it lived again* ".

5. Conclusion

The attempted suicide in adolescence may refer to very different psychic and pulsional processes. The weakening of the object tie and the instinctual connection arise when the family members can not understand the suffering of the adolescent and respond adequately to the affective demands. The adolescent body, being a place of sensory and primitive experiences, becomes a messenger of anguish, where the secondary processes of thought are weakened. It is important that recipients of this body language are receptive to the messages the adolescent seeks to convey around them. Thus, there is more chance for the adolescent to rebuild, having support in the inner objects that support him, objects that are psychically alive and available, despite the adolescent violent attacks. It is not a question of denying the destructive part of the psychic world of the adolescent, but of helping it to strengthen the processes of thought and elaboration.

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THE POWER OF THE PAST: CAN PSYCHOANALYTIC THEORY DO WITHOUT EARLY CHILDHOOD EXPERIENCES?

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Abstract

One of the main tenets of psychoanalytic theory is that a person's development is determined by often forgotten events in early childhood and that caretakers are significant in shaping personality (Westen, 1998).
In recent years, psychanalysts themselves, especially from the relational approach, are trying to minimize the role of childhood in psychoanalytic technique (Chodorow, 1999, Mitchell, 1988, 2000; Wachtel, 2017). The controversy about establishing casual relations between past and present is part of a larger debate within psychoanalysis about the validity and usefulness of etiological hypotheses (Mitchel, 1988).
In this lecture, I briefly examine the critique of the relational approach to the importance of the past in psychoanalytic technique through Steven Mitchell (1988) and Paul Wachtel's (2017). They both stress the importance of the here-and-now interactions between therapist and patient, not as a direct and simplistic one-to-one connection of past experiences, but as a lively ongoing subjective interaction in its own right. Wachtel is even disappointed in relational analysts who are using in a too pervasive manner words like "primitive" "archaic" and "infantile". I intend to show that psychoanalysis's perception of the past is far more complex than described by Wachtel and Mitchell. I show that the actual accomplishment of analytic work, still constitute the tying up of past and present whether directly or indirectly, and that if one wants to be called "psychoanalytic," it is very hard to avoid the causality that exists between childhood and transference.

Keywords: Relational approach, classical psychoanalysis, memories, repetition compulsion.

1. Introduction

Deeply rooted in psychoanalysis is the belief that our psychic development is determined by unconscious experiences in early childhood and that the role of internal and archaic objects in shaping personality in later years is significant (Westen, 1998). For many years, this deeply held belief was common to psychoanalysis and other forms of psychotherapy.

This emphasis on childhood has been challenged in recent years also within psychoanalysis and in particular by the relational approach (Chodorow, 1999, Mitchell, 1988, 2000; Wachtel, 2017). The disagreement is not limited to whether there is an etiological link between past and present. There is a broader debate which questions the overall validity and usefulness of causality-based theories (Mitchel, 1988). This line of enquiry into the causal link between past and present was, and remains, the bedrock of psychoanalytic thinking and practice. The challenge mounted by Postmodernism, and relational approach in particular, is not concerned with development theories *per se*. For some relational analysts it is questionable to accept the past as the basis for interpreting transference issues.

2. Mitchell and Wachtel – The relational approach to the past

In this lecture, I briefly examine Paul Wachtel's objection to the etiological link between development and transference. In Wachtel's view (2017), the relational attempt to distance itself from classical psychoanalysis was not sufficiently radical. He argues that like classical analysts, relational analysts continue to rely on a psychoanalytic paradigm according to which daily experiences are a reflection or expression of inner dynamics "rather than highlighting how daily life experiences continue to shape the inner world" (503). In many respects Wachtel's position echoes Steven Mitchell's critique of the extent to which Kleinian and other object relations theorists incorporated a structural feature of the older drive model theory which it had been their objective to replace.

In Mitchell's view the dynamic issues depicted in Kleinian theories tend to be conceptualized as infantile, pre-oedipal or immature. The appearance of such features in adult life, according to Mitchell, is frequently viewed as a remnant of childish immaturity rather than an expression of basic human relational needs. Mitchell (1984) writes: "Deeper is transformed into earlier, rather than more fundamental, as if dynamics attributable to the first months of life or even to prenatal existence still occupy the most basic layers of experience, underlying and governing psychic events and processes of later chronological origin. Thus, theorists attempting to accommodate the drive model to object relations issues attempt to keep instinctual and relational issues temporally separable. By pushing relational issues into an earlier developmental era, they preserve the Oedipus complex as still fundamentally instinctual. This mode of introducing theoretical innovation strains credulity; it also skews these innovations in a peculiar way, by collapsing relational issues into the interaction between the mother and infant during the earliest months of life" (479).

Wachtel, elaborating on Mitchell's thinking, emphasizes the significance of relationality. Operationally, relationality is composed by the innumerable events and interactions with family, friends, colleagues and others which are the fabric of our daily lives and are conducted on a bi-directional basis rather than being offshoots of long ago past or of internal structures.

Wachtel argues that these interactions need to be understood not only as phenomena explained by the dynamics of internal objects but also as causal elements which can change or preserve the world of internal objects. Internal structures alter relational events just as relational events alter internal structures in an unending bi-directional process in which neither one of these important factors is more significant than the other. Wachtel notes that

"The profound consequentiality of everyday life – the ways in which it not only reflects the dynamic of the internal world but also creates them – is lost when everyday life is not treated in the same fully relational manner as the analytic relationship" (509).

3. A critique of the relational approach

I want to make it clear from the outset that I am a relational therapist and that I have great admiration for this stream of thought about which I have written elsewhere (Govrin 2016, 2017) However, as is the case in every revolution, the change that gave birth to the relational approach has tended to attribute simplistic positions to classical psychoanalysis and then to present itself as a fresh, innovative, enlightened progressive and modern theory replacing its anachronistic predecessor. I think that here too Mitchell and Wachtel are doing an injustice to the classical theory. Its perception of the past is far more complex than described by either of them. True, the classical approach considered the past to be of great importance but it too recognized the impossibility of re-discovering it in a simple manner. I will cite one quotation from Freud which shows that he believed that memories of the past change and are formed by conditions in the present. In this sense, Freud expressed a point of view according to which the present has a huge influence on our perception of the past :

"If we do not wish to go astray in our judgement of their historical reality, we must above all bear in mind that people's 'childhood memories' are only consolidated at a later period, usually at the age of puberty; and that this involves a complicated process of remodeling, analogous in every way to the process by which a nation constructs legends about its early history. It at once becomes evident that in his phantasies about his infancy the individual as he grows up endeavors to efface the recollection of his auto-erotic activities; and this he does by exalting their memory-traces to the level of object love, just as a real historian will view the past in the light of the present" (1909, p.206).

It is important that this citation be seen as showing that Freud clearly understood that not only is it not possible to precisely reconstruct the past but that the past is inextricably linked to and shaped by the present.

All the same this perception of the past was for Freud a compromise once he had realized how complicated it was to find direct links between present and past.

The relational approach can be viewed as having broadened Freud's retroactive the logic of Freud's retroactive approach and in this sense cannot be said to have invented a new logic.

Relational analysts believe that the past does indeed change. In this sense there is a radical break with linearity. For Freud the reminiscence of the past is perhaps masked or for defensive reasons but it remains the past. In Post-Modernism the understanding of the time line changes. The past serves the present not the other way round. One is dealing with fluid representations whose historical sequence does not determine their credibility.

The difference between the relational approach and the classical approach is therefore not always clear.

Consider following statement of Mitchell's (1988): "The earliest experiences are meaningful not because they lay down structural residues which remain fixed, but because they are the earliest representation of patterns of family structure and interactions which will be repeated over and over in

different forms at different developmental stages. Understanding the past is crucial, not because the past lies concealed within or beneath the present, but because understanding the past provides clues to deciphering how and why the present is being approached and shaped the way it is" (p.149). Mitchell terms this this orientation toward the past the "interactional option" (p.149). However, a close reading of his view makes one wonder whether there really are significant differences of view between this perspective and the approach espoused by the developmental-arrest model.

I do not want to obfuscate the profound differences in terms of various emphases between the relational approach and the classical approach. For example, Wachtel cites an amazing case which in his view sheds light on the differences between the classical approach and the approach he represents which in his view is "relational".

The case is that of Jason who came into therapy because he felt that he was alone and rejected. Jason was brought up by an unstable mother. She had a tendency to alternate from being at loving and available one moment to being distant and cold the next. As a result, Jason was careful about forming close and intimate relations with others. However, Jason was also capable of trying to be very sociable and embarking on close relationships. And yet after that closeness was formed either he or the other party would withdraw. During transference relations Wachtel noticed that as a result of this Jason tended to be evasive, withdrawn and be uncommitted. That led Wachtel, as his therapist, to also withdraw, disengage from the conversation and lose interest. Wachtel understood that Jason's behavior was not only being governed by internal objects but that every time he withdrew from a relationship as a result of feeling close, it led the other person to also withdraw. In this way, a new feeling developed in Jason, the origin of which was not in the past when Jason had first sensed that closeness was dangerous.

"It was not simply the internalized objects from Jason's past that accounted for the continuing pattern of his life. Without understanding how his transactions with the current objects in his life perpetuated the pattern that may have begun long ago, the therapist's ability to help Jason extricate himself from the sticky and tangled web is greatly diminished" (517).

If so, this vignette helps us to unravel the great similarity as well as the difference between the relational and the classical approaches. In my view, what happened to Jason can be described as a postmodern version of repetition compulsion. In this state, the patient reconstructs conflicts from his past. The nature of such reconstructions as Freud taught us is for them to end in complete failure. Clearly the failure stems from the fact that the individual's projections on to the other during the reconstruction bear no fruit nor do them lead to the fulfillment of the fantasy. This is the power of the present over the past – as long as the desire relies on an action to be fulfilled it is doomed to fail because the response of the other completely undermines the fulfillment of the fantasy. Moreover, we also see here a postmodern change in Wachtel's emphases and this is an important change. Wachtel wants to argue that the present has an independent power which impacts the reconstruction and in Jason's case reinforces it. This power is linked to the experience of the present. The formulation represents a change of emphasis but not, in my opinion, of substance. Wachtel's perspective attributes a great deal of force to interactions in the present in order to see how they influence interactions in the past. The classical approach, on the other hand, examined the past and the extent to which it is responsible for shaping the present. This is a change in the understanding of the gestalt, in the perspective, analogous to figure which looks like a young woman from one angle and an old woman from a different angle.

There is therefore a considerable similarity between the relational and Freudian rationale. Freud thought that love- transference is a reconstruction of the past. For Freud, the change is rooted in the transition from repetition or enactment to remembrance .For the relational approach the change stems from an alteration in the pattern of relations within the therapeutic relations through enactment. It is here that the major differences between the two approaches is to be found. These do not relate to the past but rather to enactment. In classical psychoanalysis everything is geared towards the avoidance of enactment. In relational psychoanalysis, on the other hand, it is part of the communication and virtually the therapeutic method which the therapist activates. The classical approach attempted to avoid enactment whereas the relational approach facilitates it. It is through enactment that the therapeutic relations are established. Relational analysts believe that what leads to change is not mere interpretation but enactment. However, enactment is almost always described in clinical material in terms of past-present and it too is deeply embedded in the past and is always linked to early object relations.

4. Rachel Blass - The Kleinian approach to the past

As I reach the end of my lecture I want to bring into play the opinion of Professor Rachel Blass (2018), one of the foremost exponents of the Kleinian approach, on the position adopted by Wachtel.

I asked Blass what she thinks about the relational approach toward the past and she wrote me: "Traditional psychoanalysis does not espouse the view that knowing causal factors can change the psyche. Freud-Klein psychoanalysis, therefore, does not deal with uncovering these reasons (even though there were periods and analysts who did emphasize the importance of reconstruction). Moreover, reading

Wachtel it would seem that there is false parallelism, present past, external internal. This is not how matters are viewed by traditional psychoanalysis. We deal with the internal, but the internal is not the past. It is , rather, the totality of experience which an individual now lives. The fact that the patient believes that people want to harm him and in transference feels that I too want to harm him is not a transference of a significant event from the past. Instead, it is an indication that he is living in an inner world according to which he deserves to be harmed, that he enjoys being harmed or that in thoughts about harm he pacifies a wish to harm or at least that's how he wants me to think at this moment so that I would insure him. These matters are internal and belong to the present (though I assume that there were reconstructions of similar things in the past and that they didn't simply emerge just then).

According to this approach, the therapeutic relation is unique and occurs at the here and now. It is reasonable to assume that with another therapist things were interpreted different. That is the only way we can understand what is happening inside the patient. This understanding is the core issue. For example, a patient was very impressed by the books in my clinic. The dynamic was linked to phantasies about closeness and distancing, exposure and temptation, emotion and reason. Other patients have different responses. And if there were no books or there were books and I had been different, matters wouldn't have developed in the same way. The influence of the present situation and the attentiveness to it do not alter my focus on understanding the patient's internal world, his inner psychic phantasies which are not the product of relations with me but are expressed within this relation just as they are expressed in his life outside of therapy and in various cycles of his life in the past.

The shift here is from past – present to internal –external.

Blass argues that the foundations of the issues which an individual confronts in his inner world are several basic psychic situations - struggles between love and hate, creation and destruction, in which the integration between them is linked to a basic experience of guilt. These situations can be understood by thinking about the state of the infant who loves his mother, is completely dependent on her, is constantly frustrated (in the absence of a grasp of the concept of time) and who has to cope with two parents etc. That is to say the foundations of the inner world are rawer and sharper tempered than a person tends to describe them in his daily adult life. In this sense the child will be in our consciousness when we listen to the patient not because the here and now hides events in the past which need to be exposed but because it links us to the real deep meaning of what is happening in the now.

It was important for me to bring Blass's views into the discussion to show the gap between the way in which the approach is described by Wachtel and Mitchell and the way in which those representing the approach understand it. Again one sees much similarity but also a difference in emphasis. From this it can be understood that if we continue to use the term "psychoanalytic", then the etiological link between childhood and transference becomes increasingly difficult to deny.

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ADOLESCENT PSYCHIC SUFFERING IN THE CONTEMPORARY WORLD: PSYCHOANALYTIC UNDERSTANDING

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Abstract

Adolescence, as it is understood by psychoanalysis, is a notion that is related not to a chronologically determined period of life, but to a certain positioning of the subject's discourse. Although child or adolescent positioning may occupy a place at different ages of the subject's life, positioning is more socially acceptable as it occurs in a predetermined age range in each culture. The psychic world of the adolescent asks us the following question: how is it possible to understand, for example, the meaning of a series of behaviors, such as social isolation, robbery, drug use, and attempted suicide in this period of life? This article aims to explore an important aspect of the current psychoanalytic clinic: the psychological suffering of young people in the contemporary world. For this, as a research methodology was used the psychoanalytic method based on the proposal of elaboration of clinical facts, which are constituted the from the analytical experience of the researching psychoanalyst. Analyzing different aspects of this question, we try to exemplify from clinical cases of adolescents, how the psychological suffering can be expressed from a summons of the body, in the form of passage to the act. In this sense, the passage to the act can be a way of ego response to the impulsive overflow, especially in cases of eating disorders, suicide attempt and exacerbated use of computers and cell phones. The fragility of the limits, the difference between generations and the symbolic order with the resulting deprivation of alternative mediation for the passage to the adult world seem to contribute to the experience of helplessness in adolescence. To conclude, adolescents have the need to rely on their parental objects and the environment that circulates them so that they do not make use of the passage to act in order to be able to support their anguish and these are possible to be symbolizedext.

Keywords: Adolescence, psychic suffering, passage to the act, psychoanalysis, contemporary world.

1. Introduction

This article aims to explore an important aspect of the current psychoanalytic clinic: the psychological suffering of young people in the contemporary world.

The various definitions of what it means to be adolescent express the very richness and plurality of what it is to live this stage of human life: in this sense, for some adolescents this moment is confused, full of doubts and questions, loss of references, as well as discovery of new referentials in the world. For other adolescents, it is only a stage of life, like any other, where significant changes occur, but through which it is necessary to pass in order to achieve adulthood. It is against this backdrop that adolescence sets in. What we mean by all this gradation of possibilities of being is that adolescence is a unique construction, unique since each adolescent is unique, and lives his adolescence in a particular and, above all, original way. It is from this point of view that we perceive the way of being adolescent.

2. Methodology

For this research, we used the psychoanalytic method based on the proposal of elaboration of clinical facts, which are constituted from the analytical experience of the researching psychoanalyst. By clinical psychoanalytic fact is meant a construction carried out by analyst and analyzing in the space of the psychoanalytic field, starting from the relation derived from the communication of the facts occurred inside and outside the analytic session, the dreams, the affective states and the analir's action (Silva & Macedo, 2016). Likewise, the analyst's experience, the theory and the technique used are part of this

construction, which allow him to attribute new meanings to the facts reported during the analytical session. This method of research is supported by the psychoanalyst's notes after the analytical session, in his memory and interpretations.

3. The definition of adolescence in psychoanalysis

Adolescence, as it is understood by psychoanalysis, is a notion that is related not to a chronologically determined period of life, but to a certain positioning of the subject's discourse. In this reflection, when we mention adolescence, we are not considering it as a universal phenomenon that is expressed in the same way in any culture or place. Conversely, we are implying that this phase of human development presents itself in a particular way in each adolescent, being associated with the way in which this adolescent exists in the world, as it relates to his inner world and the social context and history that constitute them. This fact, the adolescence must be interpreted from the individual history of each adolescent, besides the social and cultural scene in which it is inserted.

According to Marcelli and Braconnier (1989) the psychoanalytic perspective describes and understands adolescence as a relatively homogeneous psychological process according to societies. Following Freud's thinking, all psychoanalytic writings dealing with adolescence recognized the importance of puberty, the role played by access to sexuality, and therefore the grouping of partial drives under the primacy of the genital drive. However, the emphasis may be placed, depending on the authors, on a more specific aspect: sexual arousal and impulsive modifications, mourning and depression, defense mechanisms, narcissism, ego ideal, or the question of identity and identifications. For all, adolescence will be characterized by these different elements in which the importance will vary according to the points of view, and clearly, according to the adolescents themselves (Marcelli & Bracconier, 1989).

If adolescence calls into question the relation narcissism / object relation, dependence / autonomy, the adolescent is seen summoned as much in its narcísicas bases as in its object investments. The intrapsychic reality is not something fixed in itself, it is dependent on the resonance movements that it finds in the external world, which is able to value its potentialities or disorganize the mental functioning, leading to self-destruction. The period of adolescence brings with it changes in mental life that make the subject more vulnerable to self-hatred and hopelessness, as well as bringing about the renunciation of infantile omnipotence and the integration of the double difference of sexes and generations (Rozenbaun, 2017).

4. Narratives of the psychic suffering of adolescence in the contemporary world

In order for the adolescent psychic organization to sustain itself and continue its mental functioning and development, it requires a careful and attentive listening of the adult world to the needs of adolescents, where the quality of the adult world's response and the bond that it fosters are fundamental to these Disregarding psychic suffering, both the family and the school, they no longer occupy their role as an auxiliary of the adolescent's psychic field, abandoning the adolescent himself, the oppression of his needs and his contradictions, not occupying a place of external reference that help you to moderate, project in the future and give meaning to your anguish and affection. This situation is reported by a teenager when she says, "I thought it was just a little leaf at school and in my family. Nobody asks what I think, what I think. And when they ask, I have the answer ready. That's what they want to hear. That's because they do not even know what to tell me".

In this sense, it is what Gutton calls (1991), of parental narcissistic support, where from the erotic disinvestment of the parents, the adolescent can, little by little, transform the physical presence of the parents in a model of identification and use the parental objects as continents of anguish, and from this support, to symbolize.

According to Ferrão and Poli (2014) adolescence occupies an ideal place in today's society, the hallmark of a narcissistic society, but when we direct attention beyond the advantages that youth can enjoy, we recognize the difficulty of this moment in the life of the adolescent. The attractive in youth would be trust, courage, unconcern with the consequences and lack of modesty in the attempt to get pleasure, for the availability, hope and desires of the adolescent. Or by t y the words of a teenager: "I have to stay slim, always young ... is not this what society wants?"

Added to the weakening of parents, Lipovestky (2014) points out that the 20th century consumer society functions as an infantilization operator for adults, and one of the hyperconsumer's tendencies is, as opposed to being "grown up" become "small." In this way, it is observed today, adults use the same consumer goods of children and adolescents (teddy bears, CDs, skates and clothes). There is then a "universal daycare" (61), in which there is "the end of the difference between the ages of life, all the old differentiations of the adult, historical and human world" (p. 61).

In the context of this "universal day care", the old people want to look like the younger ones and they, in turn, refuse to grow up, because "being young in our culture becomes a value, an ideal (Ferrão & Poly, 2014, p.53). As the "regressive market" gains momentum and develops, the refusal to grow starts earlier and earlier, since young adults seem to want to live in the eternal prolongation of childhood or adolescence (Lipovestky, 2014). In the psychoanalytic clinic, this question takes form from some narratives of adolescents when they verbalize: "I met my father at the same party. What was he doing there? Does not he know that time has passed? And the worst he was flirting with a schoolmate "Or when they refer to the same type of clothing:" My mother wears my clothes. When I'm going to use it, it's there, with it "and" my mother wants to have the same body as mine. Imagine, she wears my clothes. It makes me angry. How am I going to respect her? "

In today's society, authority figures are weakened, since any sign of authority is scrambled with authoritarianism.

Freud (1996/1930), in the article "The Uneasiness and Civilization", addressed the importance of authority figures in social organization, stressing the psychological poverty of groups, and this phenomenon would happen more easily in societies where authority figures did not take their due importance and place. Here authority is related to the symbolic place, a structuring function of the individual psyche, and the formation of the social bond in society. It is possible to think, from these narratives, that the present parents behave as adolescents themselves, which harms the consolidation of adolescent identity, since the establishment of the intergenerational difference is a condition in this process.

Current adolescence is deeply discredited by the boredom that stems from adult society, and even more by the inconsistency and hypocrisy of established values (Morin, 1997), where, according to Lipovetsky (2005), there is no concern with tradition and historical sense has been abandoned, in the same way as social values and institutions. Current adolescence, from Morin's (1997) point of view, experiences, in an extremely profound way, the great question of the meaning of human existence, and it is perhaps seriously marked by a feeling of annihilation-suicide. According to Winnicott ([1965], 2005), adolescence is a phase that needs to be effectively lived, a phase of personal discovery, where each individual finds himself engaged in a living experience, a problem of being. In adolescence there is a need to make a new adaptation to reality and in which the vulnerability of the self causes a new need for dependence, since during adolescence, the successes and failures of the baby and the child return to accommodate themselves (Winnicott, [1971], 1975).

On this issue of addiction, it is very common to see how adolescents can be both questioning and challenging and dependent to the point of being childish, or even often demonstrating dependency patterns dating back to their earliest lifetimes. can motivate family conflicts, since many parents fail to understand that this swing between independence / dependence is part of the psychic work of adolescence.

In this sense, Winnicott (1971, 1975) mentions that in adolescent growth, both boys and girls, in a disorderly way, emerge from childhood and move away from dependency, seeking adult status, and "is characteristic of this age, the rapid alternation between rebel independence and regressive dependence, and even, the coexistence of these two scopes at the same time "(Winnicott, 1965, 2005, p 117).

However, growth is not only a purely genetic and biological issue, it is also an issue where the environment intertwines and marks its presence as an essential part of development. In this way, the family, especially the country, must be available for both the expressions of love and the expressions of agression of the children.

Winnicott ([1965], 2005) in the article "Family and Emotional Maturity" expands this question, stating that just as the mother will have the delicate adaptation to the ever changing needs of her baby, the family, after the father, is the only entity can give continuity to the mother's task of meeting the needs of the individual. The task is to address needs that include both dependency and independence, accepting irruptions of rebellion and dependency relapses that follow rebellion.

This alternation occurs mainly during adolescence, making a double demand for the family: that of being tolerant of rebellion, as well as maintaining care and the environment that facilitates growth. Tolerating this requirement makes it possible for the adolescent to "look back and say that, whatever the faults and misunderstandings, his family never really abandoned him, just as his mother did not abandon him in the course of the first days, weeks and months of life" (Winnicott, [1965], 2005, pp. 131/132). The psychic world of the adolescent asks us the following question: how is it possible to understand, for example, the meaning of a series of behaviors, such as social isolation, robbery, drug use and attempted suicide in this life span? The process of adolescent subjectivation was hampered by the cultural impoverishment in relation to the references to the constitution of the Ideal of the Ego.

The references of the contemporary culture of spectacle and consumption are nothing more than signs of images, absent from imbued values, which hampers the dissolution of the very omnipotence of adolescence.

According to Julien (2000), when the moment of need of the youth arises and the models that should be occupying this place are not exercising their role as master what remains to face the helplessness that this causes is violence, drug use or suicide as a last appeal of an authority in the image of an Ideal Father.

In this sense, passage to the act can be a form of ego response to impulsive overflowing, especially in cases of eating disorders, attempted suicide, and exacerbated use of computers and cell phones. The frailty of boundaries, the difference between generations and the symbolic order with the resulting deprivation of alternative mediation for the transition to the adult world seem to contribute to the experience of helplessness in adolescence.

A fact that catches our attention is the constant access to the virtual environment, either through the use of the computer, television or the cell phone. Technology and the virtual environment is a significant presence in the lives of these adolescents, and some even verbalize that "life is more interesting to be experienced than the real one. " Or as a 16-year-old "it's in the online life that I really am, that's where I truly exist." They exchange the real experience for the virtual, being online many hours of the day. For the most part, they have been bullied at school during their childhood, and such an experience seems to make an important mark in their lives. When asked if they asked for help or if they verbalized this violence for someone, they say that "adults are not trustworthy", or "for whom?". When they did, there was no positive result in stopping the situation, leaving them in the experience of complete abandonment.

The experience of bullying during childhood left some adolescents isolated from their social group, and although they can make friendships, they report that they can not make true and deep bonds, "it's just a lie, so that the father and the mother do not fill the bag, "or" I do not miss it, it makes me have friends or not. " The relationship with the parents is marked by ambivalence, especially with the maternal figure. Many consider that the mother has an invasive stance, "seems to live life for me," "she does not let me breathe." After the complaints about the parents, some blame themselves too much, feeling as if they had destroyed all the bond in the relationship.

Regarding the suicide attempt in adolescence, Rozenbaum (2017) reports that the attempted suicide in adolescence is a complex issue, which does not fail to accumulate questions, both on the subject of suicide and adolescence itself. Because it is a complex theme, it is necessary to transform the reflection scenario into an expanded space, which makes it possible not to reduce explanatory elements to individual factors alone, nor to perform an inverse operation, limiting their understanding to cultural and socioeconomic causes.

For this author, anorexia and bulimia are behaviors that testify to a will not to be, as well as indirect suicides such as accidents, addictions, lack of care, and promiscuous behaviors. These indirect suicides or suicide equivalents imply a kind of challenge that is expressed even in daily actions, such as crossing a street, small domestic accidents, where it seems that the teenager puts his life at stake - perhaps obeying a fantasy of invulnerability: my life will not happen at all. Acts that, from another point of view, are apparently suicidal acts. Another point of view concerns denial, which implies a high degree of omnipotence to overcome death. Both one and the other - risking life or being immortal - are, in reality, defensive fantasies against despair and hopelessness.

5. Conclusion

To conclude, adolescents have the need to rely on their parental objects and the environment that circulates them so that they do not use the passage to act in order to be able to endure their anguish and these are possible to be symbolized. It is imperative that both the family and the environment play the role of continent, that is, adults who are adults, and not in a position of speculation with adolescents. For this, the adults and adolescents need to be in different positions and well demarcated among themselves, with some idealization of both, in their characteristics and limitations.

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Posters

RELATIONSHIP BETWEEN DRIVERS AND COPING STYLES: MODERATION ROLE OF ALCOHOLISM[1]

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Abstract

Alcoholism represents a chronic disease that is, inter alia, related to low adaptive capacities and an individual's inability to cope with everyday stressors and problems. According to Transactional Analysis, one's behavior in stressful situations is determined by the drivers which are adopted in early childhood, and are related to parental expectations from the child, messages which can be given verbally or non-verbally. The aim of this study was to examine whether alcoholism was a potential moderator of the relationship between the drivers and the stress coping styles. The sample consisted of 112 participants divided into two groups – 56 hospitalized alcoholics and 56 healthy controls. Both groups were comparable by age, sex and educational level. The following instruments were applied: The Coping Inventory for Stressful Situations – CISS, which measures task oriented coping, emotion oriented coping and avoidant coping (distraction and social diversion) (Endler & Parker, 1992), and Drivers Checklist – DCL, which measures Try hard, Please, Be perfect, Be strong and Hurry up drivers (Drivers Checklist, Hazell, 1989). The results have shown that the drivers and the coping styles were differently interrelated in alcohol dependent individuals and healthy controls. In alcoholics, certain coping styles were related with certain drivers, while in healthy controls, there were no significant correlations between the examined variables. By comparing the correlation structures in both groups, a low degree of congruence of the obtained correlations was established (Tucker's coefficient is 0.143). The obtained results indicate a possible moderating role of alcoholism in the relationship between the drivers and the stress coping styles.

Keywords: Alcoholism, drivers, transactional analysis, copying styles.

1. Introduction

As an addiction disease alcoholism is not just medical but also psychological and social problem. Numerous research has shown that the personality characteristics have an important role in the appearance of alcohol addiction (Cook et al, 1998; Vaillant, 1983). This chronic disease is related to low adaptive capacities and a reduced individual ability to cope with stressors of everyday life.

The experience of a stressful situation, the assessment of an event as being stressful and the use of a certain coping strategy are under the influence of personality (DeLongis & Holtzman, 2005). There are numerous ways to cope with stress events such as task oriented coping which is related with active solving of a problem, emotional coping wich allude to emotional bursts and daydreaming as well as avoidant coping which includes distraction by solving another problem and social diversion which refers to intensified socialising with people from one's own social surroundings. (Endler&Parker, 1990; Avero et al, 2003).

Among numerous concepts of Transactional analytical theory which help a better understanding of personality, the concept drivers helps us understand the behaviour of people under the influence of stress. Drivers are parental messages which contain moral and value judgements, as well as various gender, religious or racial stereotypes, which parents transfer to their children (Gulding&Gulding, 2007). The five main drivers are Be perfect, Try hard, Please others, Be strong and Hurry up. (Kahler&Capers, 1974, Stewart&Jones, 1987).

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2. Methods

2.1. Objectives
The main goal of the research is to examine the correlations between the drivers and the coping styles in both examined groups, as well as to examine if alcoholism moderates the relation between the drivers and the stress coping strategies in both examined groups.

2.2. Participants
The sample consisted of 112 participants divided into two groups – 56 hospitalized alcoholics and 56 healthy controls. Both groups were equaled by age, sex and educational level. At the time of questioning, the group of alcohol addicts was treated at the Alcoholism Ward of Special Psychiatric Hospital in Gornja Toponica. The average age of respondents is 45,1 (range from 25 to 65 years of age). As part of the regular psychological testing at the ward, the existence of organic changes and deterioration was chacked and excluded among the respondents prior to administeriong the tests.

2.3. Instruments
Coping Inventory for Stressful Situations –CISS, (Endler & Parker, 1992). The questionnaire consists of 48 statements with a five-point Licert answer scale which measures task oriented coping, emotion oriented coping, avoidant coping, distraction annd social diversion.

Drivers Checklist (Hazell, 1989). The questionnaire consists of 50 statements, 9 for each of 5 drivers (Be strong, Be perfect, Try hard, Please others, Hurry up) and 5 additional questions about a dominant driver. The respondent is asked to choose a statement that describes his behaviour.

3. Results

The results show that there is a significant correlation between the drivers and the coping strategies in the group of alcohol addicts (Table 1), in particular, negative correlation between the driver *Please others* and Task oriented coping ,as well as, Emotion oriented coping ($p <.05$), whereas there is a positive correlation with Social diversion ($p < .01$). Driver *Be perfect* shows a positive significant correlation with Emotion oriented coping at the level $p <.05$, and with Avoidance, Distraction and Social diversion at the level $p < .01$. *Be strong* driver significantly correlates with Task oriented coping ($p < .01$) and Social diversion ($p <.05$). Driver *Hurry up* significantly correlates with Emotion oriented coping ($p < .01$ and driver *Try hard* significantly correlates with Distraction ($p< .01$).

There are no statistically significant correlations among drivers and coping styles in the control group (Table 1). By comparing correlation structures in both groups, a low degree of congruence of the obtained correlations was established (Tucker's coefficient is 0.143).

Table 1. The correlations between coping styles and drivers in alcohol addicts and control group.

Group	Variables	Please others	Be perfect	Be strong	Hurry up	Try hard
Alcohol addicts	Task oriented coping	-0,354*	0,258	0,585**	-0,198	-0,222
Healthy controls		0,112	0,163	0,319	-0,078	-0,104
Alcohol addicts	Emotion oriented coping	-0,413*	0,388*	0,142	0,486**	0,442
Healthy controls		0,289	0,203	-0,233	0,232	0,239
Alcohol addicts	Avoidant	0,156	0,536**	0,321	0,127	0,276
Healthy controls		-0,038	-0,011	-0,065	0,102	-0,174
Alcohol addicts	Distraction	0,250	0,497**	0,247	0,158	0,425**
Healthy controls		-0,017	-0,131	-0,124	-0,032	-0,029
Alcohol addicts	Social diversion	0,497**	0,479**	0,416*	-0,005	0,071
Healthy controls		0,026	0,112	-0,044	0,225	-0,214

4. Discussion and conclusion

The results have shown that the drivers and the coping styles were differently interrelated in alcohol dependent individuals and healthy controls. In alcoholics, certain coping styles were related with certain drivers, while in healthy controls, there were no significant correlations between the examined

variables. By comparing the correlation structures in both groups, a low degree of congruence of the obtained correlations was established (Tucker's coefficient is 0.143).

In their everyday life, alcohol dependent individuals encounter numerous somatic, social and psychological problems which are an additional source of stress they have difficulty coping with due to low adaptive capacities. In healthy individuals, the drivers help them to cope with everyday challenges and stress. With a view to coming to terms with increased stressors, the influence of drivers in alcohol dependent individuals is intensified thus making them counterproductive, which can lead to new psychological and social problems representing a new source of a stressful reaction. "Things get worse instead of better, and we have more stress instead of less. So it is that the very habits that give us our social abilities are often the habits that get us into trouble" (Hazell. 1989, p.215). One possibility of coming to terms with numerous new stressors is the expansion of the repertoire of coping styles. The more counterproductive the effect of the drivers is, the bigger number of coping styles will be used by an individual.

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SELF-ESTEEM AND DEPRESSION IN ADOLESCENTS WHO CONSUME PSYCHOACTIVE SUBSTANCES

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Abstract

Adolescence is considered a risk period for the use of psychoactive substances (PAS). While adolescents face stressful life events, for which they have only partially the social resources and the cognitive means to cope with them. It is recognized that low self-esteem is one of the symptoms of depression in adolescents.

The study is of the transversal type with descriptive and analytical aims. Including 714 young students (high school students) aged 15 to 21 years. The instrument used is an anonymous self-questionnaire centered on the uses, attitudes and opinions relating to psychoactive substances, Self-questionnaire for adolescents: ADRS (Adolescent Depression Rating Scale) patient version in 10 items, and Rosenberg's Self-esteem Scale.

Our result shows that the presence of depressive symptomatology in the adolescent population studied, but with a significant difference between consumers and non-consumers (t = 4,701, p <0.001). Thus, the majority of teenagers consuming of PAS exhibited a depressive tendency 66.86%, Also a deficit of self-esteem in both adolescent populations. However, it is more expressed among consumers (t = -7.191, p <0.001). Thus, 57.99% of consumers have low self-esteem and 26.04% have very low self-esteem. While among the non-consumer population, 50.28% have low self-esteem and 9.72% have very low self-esteem.

Keywords: *Psychoactive substances, self-esteem, depression, adolescents, Morocco.*

1. Introduction

Adolescence is a period of pivotal change in brain development. It accompanied by profound cognitive-behavioral, somatic and psychic changes with increased vulnerability to risk taking. On the psychological level. It induces important changes at the level of identity that are not without affecting the self-esteem (SE). This is why a significant drop in its level is observed in early adolescence, more marked for girls than for boys (Robins et al., 2002). However, ES of adolescents distinguished by the follow-up of contrasting trajectories. For a majority of them ES follows a satisfactory trajectory. For others, ES may be chronically low or significantly decreasing throughout adolescence (Birkeland et al., 2012).

Otherwise, this low SE may be associated with many psychiatric disorders in adolescents (Oliveira, et al., 2016) including depression and various anxiety disorders (Sowislo & Orth, 2013). Perrot (2016) reports that strong causal and two-way associations seem to exist between SE and depression; and that ES is a risk factor for depression and is a consequence too (Perrot, et al., 2016). Moreover, studies have also found such a link with abuse and dependence on psychoactive substances (PAS) (Backer-Fulghum, et al., 2012). Thus, low SE correlated with PAS use (Andrew & Duncan, 1997). The aim of this study is to explore the reciprocal relations and the possible links between level of the SE, in the teenagers schooled of Kenitra city (North of Morocco), and consumption of PAS (tobacco, cannabis, alcohol) on the one hand and the depressive state on the other hand.

2. Materials and methods

714 subjects (430 boys et 284 girls). The protocol given to each subject consisted of a self-questionnaire and neuropsychological tests: **Self-questionnaire** allowed to record the socio-demographic information of the pupil, his schooling, the knowledge and the taking of different PAS

(tobacco, alcohol, cannabis). **Adolescent Depression Rating Scale** (ADRS, Revah-Levy, et al., 2007) measures the depressive intensity. This promising dimensional tool, which easy to use, intended to identify the depressive experience and measure the intensity of depression in adolescents for whom no specific instrument has been available. **Rosenberg's self-esteem scale** (Rosenberg, 1965), is a self-questionnaire measures the level of the SE, it is composed of ten items. Five items presented in positive form (items 1, 2, 4, 6 and 7) and five items in negative form (items 3, 5, 8, 9 and 10), in order to limit the effect of social desirability. The result is a note of self-esteem. Responses generally rated on a four-point Likert scale from strongly disagree to strongly agree (depending on your agreement with the statement: strongly agree, agree, disagree, or strongly disagree). The rating of negative items is reversed; the result obtained corresponds to a note of self-esteem.

Coding, processing and statistical analysis of the data were done with Excel 2013 software and SPSS V.17 software. The statistical tests used were: χ^2 and variance analyzes (Anova). The tests were considered significant for a degree of significance "p" less than or equal to 0.05.

3. Results

Regular consumption of tobacco is 16.38%. (14.52% are girls and 85.47% are boys); cannabis is 6.72%. (1.7% are girls and 95.83% are boys); and alcohol is 5.88%. (2.56% are girls and 92.86% are boys) The χ^2 test allowed us to highlight a significant difference between girls and boys regarding the prevalence of consumption of the three PSA (Table 1).

Table 1. Prevalence of psychoactive substance users in schools.

	Consumption of psychoactive substance							
	Total n=714		Girls n=284 (39,8%)		Boys n=430 (60,2%)			
	n	%	n	%	n	%	χ^2	p
Regular consumption								
Tobacco	117	16.38	17	14.52 [e]	100	85.47 [e]	37.231	0.000
Cannabis	48	6.72	2	1.7 [e]	46	95.83 [e]	27.24	0.000
Alcohol	42	53.88	3	2.56 [e]	39	92.86 [e]	19.838	0.000

In the general population, there are fluctuations in the level of SE in adolescents. Girls have low SE compared to boys (t = 2.159, p <0.031). In addition, An ES deficit is more expressed among consumers (t = -7.191, p <0.001). Almost half of teenagers with PAS have a depressive tendency, with 46.3% having a score above 4 on the ADRS scale. (Table 2).

Table 2. Prevalence of Rosenberg's self-esteem scale in both populations: school-age consumers and non-users of PAS.

Estime de soi, ADRS et consommation de substances psychoactives						
	Non-consumers n=545 (76,33%)		Regular consumers n=169 (23,66%)			
Self-esteem	n	%	n	%	t	p
Very low	53	9.72	44	26.04		
Low	274	50.28	98	57.99	-7,191	0.001
Average	119	21.83	23	13.61		
Strong	99	18.17	5	2.96		
ADRS						
No risk	375	68.81	42	53.9		
Moderate risk	125	22.94	113	38	4,701	0.001
High risk	45	8.26	14	8.3		

4. Discussion

The adolescent population studied shows low and fluctuating SE levels. This finding is confirmed by several previous studies that also confirms that boys score higher overall SE scores than girls (Fourchard & Courtinat, 2013). The longitudinal study of Birkeland et al. (2012) confirms that the average level of SE was relatively stable but increased slowly and gradually between 14 and 23 years of age. Consumers have lower scores for overall ES. The link between low self-esteem and PAS consumption has been reported in several studies (Andrew & Duncan, 1997), and a longitudinal study from Iran showed that adolescents with low ES are at higher relative risk of smoking compared with those with better ES (Khosravi et al., 2016). This during several studies have shown that a low SE was not significantly

associated with the consumption of PAS in adolescents (Tomcikova et al., 2011). Otherwise, A negative correlation between overall OS and the ADRS indicates that a low ES is related to the presence of depressive symptomatology. Indeed, a low level of self-esteem is generally associated with various psychopathological disorders, including depression (Mann et al., 2004). In this regard, a 2013 meta-analysis, covering 77 studies, found that low self-esteem is associated with depression, but also with various anxiety disorders (Sowislo et al., 2013). It is recognized that low self-esteem is one of the symptoms of adolescent depression (Winters et al., 2002).

5. Conclusion

This work will increase scientific evidence of the relationship between self-esteem, PAS consumption, and depression among school-aged adolescents in the city of Kenitra.

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EARLY MALADAPTIVE SCHEMAS AND EMOTION RECOGNITION: MODERATION ROLE OF SOCIAL ANXIETY

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Abstract

Early maladaptive schemas (EMS) represent cognitive and emotional patterns adopted at the earliest ages, which are repeated during the life, affecting the later functioning of the person. There are 18 EMS grouped into five broader categories called "schema domains". The aim of the study was to examine whether social anxiety was a potential moderator of the relationship between EMS and accuracy in the recognition basic emotions, i.e., to check whether the obtained relationships were stable on subgroups of participants formed on the basis of criteria - lower and higher level of social anxiety. The sample consisted of 262 participants, students of Psychology, the Faculty of Sport and Physical Education and the College of Applied Technical Sciences in Niš. The following instruments were used: Short version of Young's schema questionnaire (YSQ-S3, Young, 2005), JACEFEE/JACNeuF (Matsumoto & Ekman, 1988) and Scale of Social Anxiety (Tovilović, 2004). The results indicated that the schema domains were differently related to the accuracy of recognition facial expressions of emotions in participants with higher and lower level of social anxiety. Results of comparing correlation structures on two subgroups show a low degree of congruence of the obtained correlation structures between the schema domains and the recognition of basic emotions and neutral faces (Tucker's coefficient is 0,335). The obtained results have indicated that social anxiety could be a moderator of the relationship between the schema domains and the accuracy in recognition of facial expressions of emotions which is one of the most important aspects of social functioning.

Keywords: Early maladaptive schemas, schema domains, recognition of emotions, social anxiety.

1. Introduction

The human face is an important source of information in social interactions. Emotional expression is one of the most significant facial features. The ability to recognize facial expressions of emotions, or the ability to detect the emotional state of a person by judging the facial expression, is of great importance for successful social functioning. On the other hand, erroneous recognition of emotions from facial expressions may lead to poor, or worsen the existing social relations (Unoka et al., 2011).

Numerous studies confirm the link between the accuracy of recognizing emotional facial expression and social anxiety (e.g. Arrais et al., 2010; Torro-Alves et al., 2016). The results have shown that persons with higher social anxiety recognize negative emotions from facial expressions more successfully, even in the case of discrete expressions (e.g. Arrais et al., 2010; Yoon and Zinbarg, 2007). In addition, these individuals also show a tendency to attribute negative emotions to emotionally neutral faces (Alves et al., as cited in Torro-Alves et al. 2016; Yoon & Zinbarg, 2007). The results of a recent study by Tseng and associates (2017) indicate that people with social anxiety disorder make a number of mistakes in the recognition of emotion based on facial expression and prosody, with prolonged reaction time compared to the control group, especially regarding the emotion of fear.

According to cognitive models of social anxiety and social phobia, the reason for the emergence and continuance of this problem is dysfunctional cognition, in particular, maladaptive schemas related to self-assessment and assessment of others. Certain social situations activate these schemas, thus further affecting attention and the content of cognition in a particular situation (Heimberg et al., 2010). Young and his associates (2003) have identified a number of early maladaptive schemas (EMSs) underlying some psychopathological manifestations and defined them as broad, pervasive and dysfunctional patterns comprising of emotions, memories, cognition, and bodily sensations regarding oneself and one's relationship with others. These patterns are formed in childhood and affect the later functioning of the person by, inter alia, influencing and distorting perception in everyday life and reducing the possibility of an accurate assessment of others' emotions (Fonagy et al., 2002; Lemche et al., 2004). There are 18 EMSs grouped in five broad categories referred to as schema domains - disconnection/rejection, impaired autonomy and performance, other-directedness, impaired limits, and overvigilance and inhibition (Young et al., 2003).

The results of the study indicate the existence of a link between early maladaptive schemas and social anxiety, specifically social anxiety disorder (e.g. Calvete et al., 2013; Pinto-Gouveia et al., 2006), which is somewhat a confirmation of the cognitive model of this disorder.

2. Methods

2.1. Objectives
The aim of the study was to examine whether social anxiety was a potential moderator of the relationship between EMS and accuracy in the recognition basic emotions, i.e., to check whether the obtained relationships were stable on subgroups of participants formed on the basis of criteria - lower and higher level of social anxiety.

2.2. Participants
The research was conducted on a sample of 262 participants (44.7% of men), aged 18 to 23 years, who were the students recruited from the Faculty of Psychology, the Faculty of Sport and Physical Education and the College of Applied Technical Sciences in Niš.

The participants were divided into two subgroups - a subgroup with a lower level of social anxiety and a subgroup with a higher level of social anxiety, on the basis of the obtained values measured by the Social Anxiety Scale, more precisely, based on the median value which was 55 for this sample.

2.3. Instruments
Young Schema Questionnaire (YSQ-S3, Young et al., 2005) includes 90 items; the responses are rated on a six-point scale. It is designed to assess 18 maladaptive schemas divided into 5 schema domains - disconnection/rejection, impaired autonomy and performance, impaired limits, other-directedness, and overvigilance and inhibition.

A test for recognition of facial expressions - Japanese and Caucasian Facial Expressions of Emotion and Neutral Faces (JACFEE and JACNeuF, Matsumoto & Ekman, 1988) designed to assess the accuracy of recognizing basic emotions, as well as the distinction between neutral faces and faces showing a basic emotion displayed in face photographs. The test consists of 112 photographs of Japanese and Caucasian men and women, 56 of which are photographs of neutral faces and 56 photographs of faces depicting a basic emotion. The participants are required to first decide whether a face displayed in a photo shows a certain emotion or is neutral, and then determine what emotion it is.

The Social Anxiety Scale (Tovilović, 2004) includes 32 items, whereby the responses are rated on a five-point scale. It is designed for the assessment of the degree of social anxiety. High scores on the scale indicate a more pronounced presence of social-anxiety signs.

3. Result

The results for the subgroup of lower level of social anxiety have shown the following statistically significant correlations between the accuracy of recognition of basic emotions and neutral faces and schema domains: the accuracy of happiness recognition negatively correlates with domain 1 - disconnection/rejection (-0,302; p<.01) as well as the schema domain 2 - impaired autonomy and performance (-0,372, p<.01). In addition, domain 2 - impaired autonomy and performance negatively correlates with the accuracy of recognition of the following emotions: surprise (-0,190, p<.05), anger (-0,211, p<.05), contempt (-0,199, p<.05) and sadness (-0,263, p < .01). The accuracy of sadness and contempt recognition negatively correlates with the domain 5 - overvigilance and inhibition (-0,202, p<.05 i -0,196, p<05). Domain 5 - overvigilance and inhibition, in addition to contempt and sadness negatively correlates with the accuracy of fear recognition (-0,197, p<.05). Neutral faces recognition is negatively correlated with domain 4 – other-directedness (-0,238, p<.05).

The following correlations were found for the subgroup of higher level of social anxiety: the accuracy of anger recognition negatively correlates with domain 1 - disconnection/rejection (-0,238, p<.05) and domain 2 - impaired autonomy and performance (-0,244, p<.05). Domain 2 - impaired autonomy and performance negatively correlates with the accuracy of disgust recognition (-0,232, p<.05). Domain 5 – overvigilance and inhibition positively correlates with accuracy of neutral faces recognition (0,237, p<.05) and negatively correlates with the accuracy of the recognition of contempt (-0,221, p<.05) and disgust (-0,276, p<.01).

In order to examine the possible moderating effect of social anxiety on the association of schema domains and the accuracy of recognizing basic emotions and emotionally neutral faces based on facial expression, the obtained correlation structures for the two examined subgroups were compared. The comparison of the obtained correlation structures was performed using the Tucker congruence coefficient. The coefficient of congruence was 0.335, indicating a low degree of congruence of the compared correlation structures.

4. Discussion and conclusion

In this study we tried to answer the question of whether social anxiety moderates the link between early maladaptive schemas, in particular scheme domains and the success rate in recognition of facial expressions of basic emotions and emotionally neutral faces. The results indicate a different correlation between early maladaptive schemas and the success in recognizing emotional and neutral face expressions in participants with higher and lower levels of social anxiety. Despite being relatively low, the correlations differ, i.e., in different subgroups, correlations of various domains with the success of recognizing different emotions have been identified. The comparison of the correlation structures in two subgroups, revealed a Tucker's congruence coefficient of 0.335, indicating a low degree of congruence. Such results suggest that social anxiety may be a possible moderator of the link between the schema domains and the accuracy of the recognition of emotions. Taking into account the results of previous studies that have unambiguously demonstrated the existence of a link between early maladaptive schemas and social anxiety (Calvete et al., 2012; Pinto-Gouveia et al., 2006), as well as between recognizing emotions and social anxiety (Arrais et al., 2010; Torro-Alves et al., 2016; Tseng et al., 2017; Yoon and Zinbarg, 2007), it could be said that the results obtained were somewhat expected. The importance of this finding is emphasizing the significance of social anxiety and early maladaptive schemas, that are certainly in interaction for the daily social functioning of individuals, whose integral and possibly one of the most important aspects is recognizing the emotional state of others'. However, there are certain limitations of the present study, e.g., the division of the participants into those with higher and lower level of social anxiety, on the basis of median value of the results on the Social Anxiety Scale (Tovilović, 2004). Therefore, the recommendation for further research would be to verify the results obtained using a better procedure of differentiation of the participants who suffer from and those who do not have social anxiety.

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EXAMINING THE ASSOCIATIONS AMONG INSTAGRAM USAGE, SELF-COMPASSION AND BODY IMAGE CONCERN

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Abstract

The aim of this study was to examine the associations among Instagram usage, self-compassion and body image concerns. For this purpose, 260 volunteer university students (214 females and 46 males) whose age were between 18 and 26 ($M = 21.64$, $SD = 1.94$) were recruited from different universities in Turkey. Self-Compassion Scale (SCS), Multidimensional Body-Self Relations Questionnaire (MBSRQ) were administered and Instagram usage was assessed in data collection. Results of the study revealed that there was a negative relationship between body image concerns and self-compassion. Moreover, findings indicated that Instagram usage was positively associated with appearance orientation and fitness orientation. The study has important contributions by highlighting the protective role of self-compassion and the negative influence of Instagram in relation to body image concerns. Limitations, future directions and implications of the study were also provided.

Keywords: Body image, self-compassion, Instagram.

1. Introduction

In recent times, body image concerns, unrealistic body ideals and related risky behaviors (e.g. making strict diet and doing excessive exercise) have become considerably common among young adults (Grogan, 2016). In addition, the twenty-first century has also witnessed a significant increase in women and men having cosmetic surgery (Grogan, 2016).

Research indicated that Instagram contributes to body image concerns through unrealistic ideals of beauty. Previous research revealed that exposure to photos and more time spent on Instagram may trigger body image concerns (Tiggemann & Zaccardo, 2015; Brown & Tiggemann, 2016; Ahadzadeh, Sharif, & Ong, 2017). Although there is a positive relationship between Instagram usage and body image concerns, this relationship may be differentiated by other social and psychological factors. For instance, self-compassion may be protective for adaptive body image since it is an adaptive emotion regulation strategy.

Previous research found an association between body image and Instagram usage (Tiggemann & Zaccardo, 2015; Brown & Tiggemann, 2016; Ahadzadeh, Sharif, & Ong, 2017); and body image and self-compassion (Andrew, Tiggemann, & Clark, 2016; Wasylkiw, MacKinnon, & MacLellan, 2012). However, there are few studies that investigate the relationships among these three constructs. Therefore, the aim of this study was to examine the roles of Instagram usage and self-compassion in body image concerns.

2. Method

2.1. Participants

260 undergraduate students (214 females, 40 males) voluntarily recruited from various universities in Istanbul, Turkey. The age range of the participants was between 18 and 26 ($M = 21.64$, $SD = 1.94$).

2.2. Measures

Demographic Information Form was administered to collect information about participants' age, gender, department, grade level, parental education, socio-economic status.

The Self-Compassion Scale (Neff, 2003b) was used in order to measure individual's tendency to be compassionate toward self. It consists of 26 items with 6 subscales: self-kindness vs self-judgment, common humanity vs isolation, mindfulness vs over identification. Items are rated along a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*), with higher scores reflecting higher self-compassion. Turkish adaptation study of the Self-Compassion Scale was conducted by Akın, Akın and Abacı (2007). The Turkish version also contains 6 subscales in 26 items.

Multidimensional Body-Self Relations Questionnaire (Brown, Cash, & Mikulka, 1990) aims to assess people's attitudes about their body image. The original form consists of 69 items loaded on 9 subscales; Evaluation and Orientation (Appearance, Fitness, and Health/Illness), plus Overweight Preoccupation, Self-Classified Weight, and the Body Areas Satisfaction Scale (BASS). In Turkish version of the scale (Doğan & Doğan, 1992) includes 57 items with 7 subscales; Appearance Evaluation, Appearance Orientation, Fitness Evaluation, Fitness Orientation, Health Evaluation, Health Orientation and the Body Areas Satisfaction Scale.

Instagram usage was assessed with 18 questions designed to measure time spent on Instagram, frequency of specific Instagram usage activities and the number of followers and following on it.

3. Results

Time spent on Instagram was significantly correlated with appearance orientation ($r = .19$, $p < .01$), health evaluation ($r = -.22$, $p < .01$) and over-identification ($r = .18$, $p < .01$). The number of followers and followings on Instagram was also significantly correlated with fitness evaluation ($r = .13$, $p < .05$) and fitness orientation ($r = .17$, $p < .01$). The frequency of specific Instagram usage activities was significantly correlated with appearance orientation ($r = .28$, $p < .01$) and over-identification ($r = .15$, $p < .05$).

Appearance evaluation was significantly correlated with self-kindness ($r = .33$, $p < .01$), self-judgment ($r = -.23$, $p < .01$), common humanity ($r = .17$, $p < .01$), isolation ($r = -.24$, $p < .01$), mindfulness ($r = .26$, $p < .01$) and over-identification ($r = -.25$, $p < .01$). Appearance orientation was significantly correlated with self-kindness ($r = .12$, $p < .05$) and over-identification ($r = .12$, $p < .05$).

Fitness evaluation was significantly correlated with self-kindness ($r = .31$, $p < .01$), self-judgment ($r = -.17$, $p < .01$), common humanity ($r = .16$, $p < .05$), isolation ($r = -.25$, $p < .01$), mindfulness ($r = .26$, $p < .01$) and over-identification ($r = -.25$, $p < .01$). Fitness orientation was significantly correlated with self-kindness ($r = .14$, $p < .05$).

Health evaluation was significantly correlated with self-kindness ($r = .22$, $p < .01$), self-judgment ($r = -.16$, $p < .01$), isolation ($r = -.21$, $p < .01$), mindfulness ($r = .22$, $p < .01$), over-identification ($r = -.22$, $p < .01$). Health orientation was significantly correlated with self-kindness ($r = .25$, $p < .01$), self-judgment ($r = -.14$, $p < .05$), isolation ($r = -.13$, $p < .05$), mindfulness ($r = .17$, $p < .01$).

Body areas satisfaction was significantly correlated with self-kindness ($r = .43$, $p < .01$), self-judgment ($r = -.32$, $p < .01$), common humanity ($r = .19$, $p < .01$), isolation ($r = -.34$, $p < .01$), mindfulness ($r = .32$, $p < .01$), over-identification ($r = -.31$, $p < .01$) (See Table 1).

Table 1. Inter-correlations among variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Time spent on Instagram	1	.22**	.45**	-.03	.19**	-.05	.00	-.22**	.03	-.09	-.03	-.02	.05	.11	-.08	.18**
2. Following and Followers		1	.29**	.09	.10	.13*	.17**	.04	.06	.04	.06	.01	.08	.02	.09	.03
3. Instagram Activities			1	.03	.28**	-.01	.04	-.08	.07	-.09	-.01	.07	.11	.10	.02	.15*
4. Appearance Evaluation				1	.47**	.66**	.37**	.34**	.44**	.77**	.33**	-.23**	.17**	-.24**	.26**	-.25**
5. Appearance Orientation					1	.27**	.24**	.12*	.36**	.24**	.12*	.02	.12	.08	.02	.12*
6. Fitness Evaluation						1	.54**	.53**	.50**	.63**	.31**	-.17**	.16*	-.25**	.26**	-.25**
7. Fitness Orientation							1	.34**	.46**	.34**	.14*	.05	.08	-.05	.09	-.09
8. Health Evaluation								1	.39**	.36**	.22**	-.16**	.12	-.21**	.22**	-.22**
9. Health Orientation									1	.42**	.25**	-.14*	.10	-.13*	.17**	-.08
10. Body Areas Satisfaction										1	.43**	-.32**	.19**	-.34**	.32**	-.31**
11. Self-Kindness											1	-.48**	.63**	-.38**	.73**	-.40**
12. Self-Judgment												1	-.28**	.70**	-.36**	.65**
13. Common Humanity													1	-.23**	.66**	-.28**
14. Isolation														1	-.34**	.70**
15. Mindfulness															1	-.46**
16. Over-Identification																1

 * p < .05
** p < .01

4. Discussion

The findings revealed that increase in Instagram usage was associated with higher level of appearance orientation and fitness orientation. In other words, Instagram users attempt to enhance their physical attractiveness, probably to receive approval from others; and they tend to engage in activities in order to maintain or enhance their fitness like models or peers on Instagram. Therefore, exposure to Instagram photos may trigger maladaptive even dangerous appearance and fitness oriented activities, particularly cosmetic surgery, excessive exercise or body building.

Although Instagram usage seemed to contribute to investment in appearance and fitness oriented behaviors, it was not correlated with any dimension about body image concerns. This finding is inconsistent with the previous studies indicating the role of Instagram on body image (Ahadzadeh, Sharif, & Ong, 2016). Nowadays, young adults tend to use Instagram as an every-day habit. Therefore, this usage may increase the investment in appearance, without impacting body dissatisfaction.

The current study provides useful information about protective role of self-compassion on body image by pointing out that body dissatisfaction was negatively associated with self-kindness, common humanity, mindfulness; while it was positively related with self-judgment, isolation and over-identification. Since self-compassion promotes a more accepting and kind attitude toward one's flaws (Toole & Craighead, 2015), people who have higher level of self-compassion accept their body flaws with compassion, this may lead to have a positive body image (Wood-Barcalow, Tylka, & Augustus-Horvath, 2010). This knowledge could be considered by practitioners while working with university students about body image concerns. Interventions intended to increase self-compassion may be effective in reducing body image concerns and preventing maladaptive even dangerous fitness and appearance oriented activities.

There are some limitations that emphasize the need for further research. Firstly, this study was carried out by using convenience sample among undergraduate university students. Thus, future studies with larger sample having different socio-demographic characteristics and age groups are recommended. Secondly, that sample of the present study predominantly consisted of female participants. Further studies with more balanced gender ratio will provide possibility to investigate gender differences in body image. Thirdly, since the current study was a cross-sectional research, it is not possible to infer a causality of direction in the associations. Nevertheless, the results of this study can be utilized as a starting point to explore the relationships among body image concerns, Instagram usage and self-compassion. In order to gain insight about the nature of the relationship among variables, conducting longitudinal studies might be recommended.

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EFFECTS OF EARLY MALADAPTIVE SCHEMAS TO TYPE D PERSONALITY AND TYPE A BEHAVIOR PATTERN[1]

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Abstract

The purpose of this study was to examine predictive role of Early Maladaptive Schemas (EMSs), namely in Type D personality (Type D) - Negative Affectivity (NA) and Social Inhibition (SI), and in Type A Behavior Pattern (TABP) - Achievement Strivings (AS) and Impatience-Irritability (II). According to EMSs theoretical framework, schemas are developed through early experiences with significant others, primarily parents, and contribute to later interactions and adjustment. Type D and TABP are related to many adverse health outcomes primarily to cardiovascular diseases, so we tried to relate them to some common early maladaptive experiences. The participants in the cross-sectional correlational study were 204 volunteers from general Serbian population (M=26.61, SD=7.99). Before Multiple Linear Regression was performed, multicollinearity was checked and not diagnosed. The EMSs proved to be stronger predictors for Type D's than TABP's features. Beside schemas that were distinguished as significant predictors for single TABP's and Type D's features, the schema Unrelenting standards was common significant positive predictor for both features of TABP and NA as a part of Type D. The Schema Insufficient self-control and self-discipline was negative predictor of AS and positive of II and NA. The Schema Social Isolation was distinguished as positive predictor for NA and SI and negative for II. The obtained results suggested that TABP and Type D may be related with some mutual maladaptive developmental experiences, but no causal statements can be made according to the study design.

Keywords: Early maladaptive schemas, type D personality, type A behavior pattern.

1. Introduction

Type A Behavior Pattern (TABP) and Type D personality (Type D) are constructs primarily related to cardiac patients as they may contribute to the onset, course and outcome of cardiovascular diseases. Furthermore, their association with other adverse health outcomes is noticeable, but only a handful of studies have been investigated simultaneously. TABP can be associated with greater achievements and success (Spence, Helmreich, & Pred, 1987), but the majority of studies, including meta-analytic reviews have established aggressiveness/hostility as its "pathogenic core" (Myrtek, 2001). Type D or "distressed" personality, represents an interaction between two stable features – Negative affectivity (NA) and Social inhibition (SI). The NA component reflects a tendency to experience negative emotions, regardless of situation, whereas the SI component reflects the hesitance to self-expression and and insecure interaction with others (Denollet, 2005). Early developmental experiences have an important role in development of both (Friedman & Rosenman, 1974; Denollet, 2005). Having in mind that both are primarly related with CHD, the present study was designed to investigate weather TABP and Type D share some common early maladaptive experiences. Young's model of Early maladaptive schems (EMS) was used as theoretical background (Young, Klosko, & Weishaar, 2003). EMSs refer to a dysfunctional pattern of memories, emotions, cognitions, and bodily sensations about oneself and relationships with others developed in childhood or adolescence and elaborated throughout life (Young et al., 2003). The aim of this study was to examine the predictive role of EMSs, namely in Type D - Negative Affectivity and Social Inhibition, and in TABP - Achievement Strivings and Impatience-Irritablity.

2. Methods

2.1. Sample

The cross-sectional and correlational study was conducted in order to examine the established goals. The sample consisted of 204 volunteers from general Serbian population (M=26.61, SD=7.99). All

participants were briefly introduced to research goals and given the instructions on filling out the questionnaires.

2.2. Instruments

TABP was measured by Adaptation of Jenkins's Activity Scale (Spence et al., 1987) which consists of 12 items rated on a 5-point Likert scale that assesses two components of this behavior style. Achievement Strivings (AS) with 7 items refers to hard driving, activity and achievement related behaviors, while the Impatience-Irritability (II) with 5 items is related to intolerance, anger, hostility and preoccupation with the lack of time.

Type D personality was assessed with the DS - 14 scale (Denollet, 2005) which consists of 14 items and comprises two subscales with 7 items each for NA and SI. Answers are rated on a 5-point Likert scale.

EMS were assessed by Young Schema Questionnaire – short form, YSQ-S3 (Young, 2005). YSQ-S3 is a 90-item scale, and the answers are given on a 6-point scale. The items assess the presence of 18 EMS: Emotional Deprivation, Abandonment/Instability, Mistrust/Abuse, Defectiveness/Shame, Social Isolation/Alienation, Dependence/Incompetence, Vulnerability to Harm or Illness, Enmeshment/Undeveloped Self and Failure to Achieve, Entitlement/Grandiosity, Insufficient Self-Control/Self-Discipline, Subjugation, Self-Sacrifice, Approval-Seeking/Recognition-Seeking, Negativity/Pessimism, Emotional Inhibition, Unrelenting Standards/Hypercriticalness and Punitiveness.

3. Results

The results pointed out that all examined EMSs were positively related with Type D' features, whereby the range of correlations was between r=.355**-.638** for NA, and r=.180**-.597** for SI. Only weak or moderate correlations were established between EMS and TABP's components, and unlike type D personality, only certain schemas correlated with both TABP's features, whereby correlations were positive as well as negative (r=.163*- -.365** for AS, and r=.147*-.323** for II). A weak positive correlation between II as a part of TABP and NA as a component of Type D personality was obtained (r=.188**). Before multiple regression analyses were conducted multicollinearity between EMS as predictors was checked. The results indicated tolerance values in the range .236-.582 and VIF values in the range 1.718-4.244, hence multicollinearity was not diagnosed.

Table 1. Multiple linear regression of TABP's features on EMS.

Variables	Schemas	AS			II		
		Unstandardized coefficient B	Standard error SE	Standardized coefficient β	Unstandardized coefficient B	Standard error SE	Standardized coefficient β
Common predictors	Insufficient Self-Control/Self-Discipline	-.342	.066	.427***	.222	.055	.374***
	Unrelenting Standards/Hypercriticalness	.325	.078	.371***	.277	.064	.427***
	Self-Sacrifice	.215	.063	.255**			
Single predictors	Enmeshment/Undeveloped Self	-.175	.081	-.177*			
	Approval-Seeking/Recognition-Seeking				-.118	.058	-.195*
	Social Isolation/Alienation				-.135	.062	-.235*
Model Summary		R = .632, R² = .400, Adjusted R² = .341, SE = 3.47, F = 6.838***			R = .497, R² = .247, Adjusted R² = .173, SE = 2.88, F = 3.366***		

Table 2. Multiple linear regression of type D's features on EMS.

Variables	Schemas	NA			SI		
		Unstandardized coefficient B	Standard error SE	Standardized coefficient β	Unstandardized coefficient B	Standard error SE	Standardized coefficient β
Common predictors	Social Isolation/Alienation	.339	.099	.277**	.400	.094	.374**
Single predictors	Vulnerability to Harm or Illness	.332	.122	.231**			
	Entitlement/Grandiosity	-.282	.110	-.197*	-.218	.104	-.174*
	Unrelenting Standards/Hypercriticalness	.216	.103	.156*			
	Insufficient Self-Control/Self-Discipline	.213	.088	.169			
	Emotional Inhibition				.374	.099	.323**
	Failure to Achieve				.295	.133	.198*
	Defectiveness/Shame				-.391	.129	-.275*
Model Summary		R = .758, R² = .574, Adjusted R² = .533, SE = 4.61, F = 13.851***			R = .709, R² = .503, Adjusted R² = .454, SE = 4.35, F = 10.393***		

4. Discussion and conclusion

When it comes to TABP, the obtained results have shown that EMSs accounted for 40.0% AS variance, i.e. for 24.7% II variance. Regression model composed by EMSs accounted for 57.4% variance of NA, i.e. 50.3% variance of SI as Type D's features. The results about single schemas that were recognized as significant predictors for TABP's and Type D's features are in accordance with theoretical determination of TABP and Type D, i.e. its features. In general, the results have shown that EMS have higher contribution in cumulative percentage of the explained variance of Type D than TABP. The finding can be understood in terms that TABP is a behavioral pattern, hence Type As will demonstrate less stability in self-schema content across time, while Type D refers to more stable personal characteristics, hence there is stronger relationship between EMS which are considered as deeply rooted negative patterns of emotions, cognitions, and bodily sensations (Young et al., 2003) Likewise, AS can be considered as a positive feature, hence certain schemas are its negative predictors, which is not the case with Type D's components. The schema Unrelenting standards was common significant positive predictor for both features of TABP and NA as a part of Type D. The Schema Insufficient self-control and self-discipline was negative predictor of AS and positive of II and NA. The Schema Social Isolation was distinguished as positive predictor for NA and SI and negative for II. Setting high achievement standards contribute to both TABP and Type D. Achieving these standards, that is in accordance with TABP determination, implies self-control and self-discipline, but is on the other hand related with negative emotions in both Type A behavior and Type D personality individuals. However, Type A individuals would rather externalize their emotions thus experiencing damage from the emotions themselves, but also gaining benefit for not holding them in, whereas Type D individuals would internalize their negative emotions particularly due to social inhibition which has often been suggested to act as a maladaptive coping strategy in overcoming the psychological distress (e.g. Denollet et al., 1996). It appears that, even though certain negative developmental experiences, like setting high standards, may be common to both constructs, the ways of "overcoming" are different, which may make type D personality more vulnerable to various negative outcomes. Since correlational study design was applied, no causal statements can be made, hence results demand further investigation. Also, possible selection bias according to the sample (young volunteers) should be considered as study limitation.

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THE RELATIONSHIPS BETWEEN THE MECHANISMS OF PSYCHOLOGICAL DEFENSE AND COPING BEHAVIOR AND PSYCHOLOGICAL WELL-BEING IN YOUTH[1]

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Abstract

It studies the relation to the sense of coherence as well as different components of psychological well-being: self-acceptance, positive attitudes, goal in life and a sense of competence in mastering the environment. Our tools were: Life Style Index (LSI; Plutchik, Kellerman, & Conte, 1979), Defence Style Questionnaire (DSQ 40; Andrews, Singh, & Bond, 1993), The Ways of Coping Questionnaire, (WCQ; Folkman, Lazarus, 1988), Ryff's Scales of Psychological Well-Being. The study involved 226 young people (Mage=18.35, SD=0,9; 103 males, 123 females). We used correlation analysis. There is a moderate correlation between immature mechanisms of defense and a non-adaptive process of coping, while mature mechanisms of defense happened to correlate moderately with the adaptive coping. We considered the correlations between mechanisms of psychological defense and the parameters of psychological well-being. Psychological well-being and mental health are rather affected by the adequate perception of reality (mature defense mechanisms) than by the influence of coping behavior.

Keywords: Mechanisms of psychological defense, coping behavior, psychological well-being, youth.

1. Introduction

Modern psychological literature establishes an adaptive role of the mechanisms of adaptive processes, which involve psychological defense mechanisms and coping strategies. It is difficult to challenge the fact that the mechanisms of psychological defense are adaptive, since they perform the function of self-preservation for the psyche (Cramer, 2015; Kuftyak, 2014). Psychological defense is responsible for the adaptive rearrangement of perception and evaluation; therefore, it leads to internal concordance, balance and emotional stability and keeps the integrity of self-consciousness, without which we cannot actually discuss a positive result of an adaptation process (Granovskaya, 2007; Kuftyak, 2017). Copings are activated in difficult situations. Their main objective is to provide and maintain person's well-being, his physical and mental health and satisfaction with social relationships (Lazarus, Folkman, 1984).

It means that both psychological defense and coping behavior may perform a constructive role in both the adaptation and preservation of person's health. This fact was empirically confirmed in the research. Thus, the research by Callahan S. and Chabrol H., the graduates from the universities, established a moderate correlation between immature mechanisms of defense and a non-adaptive process of coping, while mature mechanisms of defense happened to correlate moderately with the adaptive coping (Callahan & Chabrol, 2004).

Therefore, the goal of this study is to establish the mutual dependence between psychological mechanisms of defense and coping strategies through the lenses of preserving mental health.

2. Design

The study involved the students of vocational colleges and universities in Kostroma and Kazan (n=226). A total of 103 boys and 123 girls took part in the study. The mean calendar age of boys was 18.35, the age varied from 17 to 20 years.

The object of study is individual mechanisms of adaptive processes.

The subject of study is the correlation between psychological mechanisms of defense and coping strategies and indices of psychological well-being in youth.

The study of ratio of coping behavior and psychological defenses as well as the study of relationships between coping behavior and psychological defenses and the indices of psychological well-being were the priorities.

3. Methods

We have used the following instruments during the study. To find the intensity of psychological defenses in boys and girls, we have applied Defence Style Questionnaire – DSQ 40 (Bond, 1992).

We have used coping behavior by means of The Ways of Coping Questionnaire – WCQ, 1988) R. Lazarus, S. Folkman, which reveal eight coping strategies: confrontation coping, distancing, self-control, searching social support, taking responsibility, run-avoidance, planning to solve a problem, positive revaluation (Kryukova, Kuftyak, 2005).

To measure the level of current psychological well-being and to assess the intensity of its particular components, we have used Ryff's Scales of Psychological Well-Being (Lepeshinskii, 2007). The questionnaire has points that constitute 6 scales. The answers to these scales are evaluated by classic keys: positive relations with others, autonomy, environment management, personal growth, goals in life, self-acceptance.

The results were processes by means of SPSS 19 statistic packet.

4. Discussion

The correlation analysis enabled to establish that most connections refer to the strategies of taking responsibility and planning to solve a problem (13 connections at the level of 0.15-0.22 correlation coefficient with the level of significance from p=0.03 to p=0.001). These coping strategies correlate negatively with the following psychological defenses – annulment, replacement, anticipation and negation. These psychological defenses are mostly non-productive.

There are interesting results about the positive relationships between the strategies of taking responsibility and seeking social support and summarization mechanisms (r_s=0.2, p=0.004; r_s=0.14, p=0.04) and acting out (r_s=0.13, p=0.04). Higher responsibility possibly requires the mobilization of both mental and physical reserves of the organisms, which can influence somatic health. Social support, in turn, implies the enactment of an anxious scenario and trying an active role of a protagonist in a tense situation.

Self-acceptance, positive relations with other people, autonomy, managing the environment, goals in life and personal growth are the important indices of person's psychological well-being. As an integral personal trait, psychological well-being can be used as an index of person's mental health. Then, we considered the correlations between mechanisms of psychological defense and the parameters of psychological well-being.

Most important positive correlations have been revealed between the indices of psychological defenses and such parameters of psychological well-being as positive relations with others, managing the environment, goals in life and self-acceptance (25 direct relations at the level of 0.15-0.36 correlation coefficient with the level of significance from p=0.03 to p=0.000). These parameters of psychological well-being are related to the mechanisms of sublimation, humor, rationalization, idealization, anticipation, suppression and negation. These psychological defenses relate to mature mechanisms. Besides, we have revealed negative correlations between these very parameters of psychological well-being and mechanisms of replacement, passive aggression, autistic day-dreaming and somatization (20 reverse connections at the level of 0.14-0.44 correlation coefficient with the level of significance from p=0.04 to p=0.000). There mechanisms are revealed in immature psychological defenses. The obtained results replenish the picture of psychological health and indicate that individual's psychological functioning is affected by the adequate perception of reality (Kuftyak, 2015).

We should note that the number of connections between coping strategies and the parameters of psychological well-being is much less that between the indices of psychological defenses and parameters of psychological well-being (6 negative connections at the level of 0.17-0.23 correlation coefficient with the level of significance from p=0.013 to p=0.001). Therefore, the role of psychological well-being as a resource of coping with difficulties is limited. Thus, some authors point out that psychological well-being can regulate the influence of moderate stressors on a person. If a person is affected by severe stressors (in case of post-traumatic stress), the level of psychological well-being is reduced (Dymova et al., 2015).

5. Conclusions

Therefore, the results of the study enable to make the following conclusions.

1. According to modern data, psychological defenses and coping behavior are integrated in a single system of adaptational behavior. Psychological defense and coping behavior may perform a constructive role in both adaptation and preservation of person's health.

2. There is a moderate correlation between immature mechanisms of defense and a non-adaptive process of coping, while mature mechanisms of defense happened to correlate moderately with the adaptive coping.

3. Psychological well-being and mental health are rather affected by the adequate perception of reality (mature defense mechanisms) than by the influence of coping behavior.

4. Considering the adaptive processes through the lenses of their adaptation enable to enlarge the view on person's security and well-being.

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A CONSERVATIVE SHIFT LINKED TO THE BREXIT REFERENDUM AND THE SPAIN 2016 GENERAL ELECTION

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Abstract

Political conservatism is an ideological belief system that may be defined by two characteristics: resistance to change and acceptance of social inequality. Conservatism has been claimed to result from the intersection of several situational and dispositional variables associated with the management of threat and uncertainty. System instability has been found to be one of the psychological variables that most influences the preference for conservative over liberal political attitudes. The Brexit Referendum and the Spain 2016 General Election involved great uncertainty regarding the political stability of the European Union and the Government of Spain respectively. This study was designed to explore their possible effects on political attitudes, in terms of the system instability threat associated with them. In order to investigate this issue, 46 young Spanish people, most of whom were university students, performed a decision-making task with political dilemmas (e.g., related to immigration) either in the same week that the plebiscites were to take place or in the week following them. The first participants showed more conservative responses in the decision-making task and in an ideological self-placement item. These data were compared with those from 29 persons of similar characteristics, who conducted the same task the month prior to the ballots. No differences were found between these and the post-plebiscite participants, but, again, those performing the task in pre-election week showed more conservative responses. The results are consistent with a conservative shift linked to the imminence of the political plebiscites.

Keywords: Motivation and emotion, political psychology, conservative shift, decision making.

1. Introduction

It has been proposed that political conservatism (i.e., resistance to change and endorsement of inequality), derived from the intersection of social, cognitive, and motivational variables, is associated with the psychological needs to manage uncertainty and threat (e.g., Jost et al., 2003). Jost et al. conducted a meta-analysis of studies involving thousands of individuals from 12 countries, in order to investigate psychological variables that might predict preference for conservative-versus-liberal political attitudes. One of the variables that produced the largest effect size was system uncertainty.

EXPERIMENT 1A

2. Objectives

The aims were to explore the effects of the United Kingdom European Union (EU) Membership Referendum ("Brexit" Referendum, June 23rd), and the Spain 2016 General Election (June 26th) on the participants' opinions assessed in a decision-making task. Both events involved uncertainty about the political stability of the EU and the Government of Spain, respectively. A part of this feeling might be reduced after the results of the plebiscites are known. Given that system instability may induce an increase in preference for conservative political options, comparison between responses of the participants who were going to do the experiment in the same week as the plebiscites, and those who planned to do so the week afterwards might indicate support for this conservative-shift hypothesis.

3. Methods

The participants were 46 young Spanish people (24 women; M= 22.59; S.D.= 1.63), and of whom 42 were college students and four, employees. Twenty-three participants (M= 22.83; SD= 1.19;

13 women) completed the task in the same week as the plebiscites, and the other half (M= 22.35; SD= 1.97; 11 women) conducted it the week after the ballots. The decision-making task, performed in a laboratory and implemented by means of E-Prime 2.0 (Schneider et al., 2002), included 16 dilemmas in Spanish, of which 12 were distractors and four (see Table 1) were used to measure political attitudes. The participants had to indicate their agreement or disagreement with the final statement of each one of the dilemmas, the affirmative response being the liberal option, and the negative response, the conservative option. They also completed a demographic questionnaire, where they were asked to situate their political orientation on a continuum ranging from 1 (left-wing) to 11 (right-wing).

4. Results

A t-test indicated ($t(34.72)= 3.55$; $p<.002$) that the participants who performed the experiment in the same week as the run-up to the elections situated themselves politically more to the right (M= 6.00; S.D.= 3.02) than those who conducted it the week after them (M= 3.43; S.D.= 1.7). An overall index of liberalism, by collapsing the responses on the target dilemmas, significantly correlated with the political orientation scores ($r=-.60$, $p<.001$, bilateral). An ANOVA 2(Plebiscite Period Group) x 4(Dilemma) with the proportions of liberal responses found that the participants who performed the task the week after the plebiscites made more liberal choices ($F(1,44)= 4.85$; $p<.05$; $\eta^2_p= .10$).

Table 1. Political dilemmas (originally in Spanish) presented in the decision-making task of the experiments.
B: Bombardment; E: Elections; I: Immigrants; P: Posters.

B	You are a member of the Council of Generals that is in charge of the armed forces in a conflict. You are informed that a group of insurgents is using a residential area of the city to store weapons, forcing all the people who live there to leave their homes for fear and leave all their possessions there. Due to a low risk of civilian casualties, you and the rest of the generals are considering bombing the area in order to wipe out that storage, although it implies the destruction of the possessions of the people living there. Is it appropriate for you not to bomb the area used by the insurgents to store weapons so as not to destroy the possessions of the people who live there?
E	You are friends with a person from another country where there will soon be general elections. That person is undecided and asks for your advice to choose between two candidates. The first is critical with the situation of the country, claiming that it has experienced a decline that hinders its future, so that it will make progress only as a result of a regeneration process. The second candidate emphasizes the positive values of the country and the virtues of belonging to it, highlighting the importance of promoting progress and maintaining optimism in the face of challenges. Is it appropriate for you to advise your friend to vote for the first candidate?
I	You are the head of security of your country's border, alongside which there is a refugee camp, and you have received information stating that there are dangerous groups within the camp, although their members have not been identified. You have also been informed that a foreign extremist group is planning to take actions against the sanitation of the camp, which would harm innocent immigrants. Is it appropriate for you to open up the border to the people in the camp, thus risking the entry of dangerous individuals into your country, in order to ensure the protection of the rest of the camp?
P	A friend proposes that you do billposting on one night of the election campaign. The work will take about four hours, from 11.00 p.m. to 3.00 a.m. between Friday night and the early hours of Saturday morning, and it would mean you making a considerable profit, which you would receive on the day following the billsticking night. You don't have much liking for the party you would advertise for and would never think of voting for them in the next elections. Is it appropriate for you to participate in the billposting campaign for that party in exchange for the financial reward you'd receive?

5. Discussion

Experiment 1A shows an effect of the period, before or after the voting dates, when the participants carried out the task. It is not clear whether the participants who performed it in the week when the ballots were to take place showed a conservative shift or whether the participants who conducted the experiment the week after the plebiscites showed a liberal shift. An experiment with the same design had been conducted by one of the authors nearly a month before the ballots. We compared the results of this experiment with those of Experiment 1A to try to discover the ideology of the shift.

EXPERIMENT 1B

6. Methods

The sample was composed of 29 Spanish people (12 women; M= 24.17; S.D.= 4.04). One participant was a high school student, 18 were university students, nine were employees, and one was self-employed. The experimental conditions were the same as Experiment 1A, except that stimulus presentation and response collection were carried out with a laptop computer, and the task was conducted in May 2016, in a storage room belonging to one of the authors.
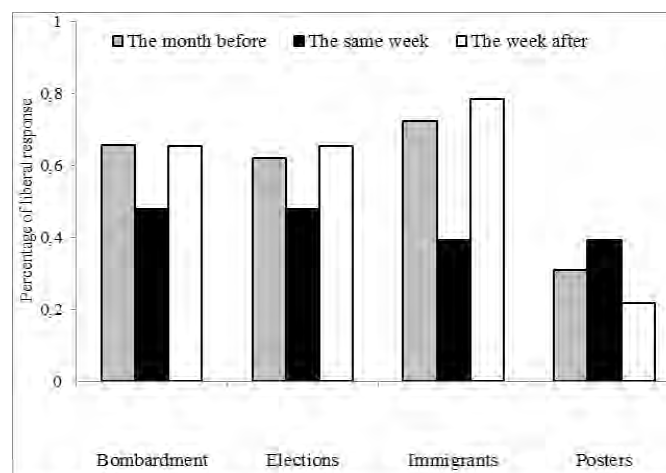
7. Results

A *t*-test comparing the political orientation scores of the participants of Experiment 1B and those of the participants of Experiment 1A who had done it in pre-election week, ($t(36.70)= 3.91$; $p< .002$), found that the first situated themselves more to the left ($M= 3.14$; D.T.$= 2.01$). No differences were found between the participants of Experiment 1B and the post-election participants of Experiment 1A ($p= .58$). A significant correlation between the overall index of liberalism and the political orientation scores was found in both comparisons ($r=-.58$ and $-.55$, respectively, $p<.001$, bilateral). An ANOVA 2(Plebiscite Period group: the previous month, the same week) x 4(dilemma) with the proportions of liberal responses found that the participants of Experiment 1B made more liberal choices ($F(1,50)= 5.71$; $p<.03$; $\eta^2_p= .10$). An analogue ANOVA for the Experiment 1B participants and the post-election ones of Experiment 1A only found the main effect of dilemma ($F(3,150)= 10.34$; $p<.001$; $\eta^2_p= .17$): *Posters* obtained less liberal responses than the other ones ($ps<.01$).

8. Discussion

There were no significant differences between the participants of Experiment 1B and those performing the task the week after the plebiscites. In comparison, the participants performing the experiment during pre-Election week situated themselves more to the right in the political spectrum and showed more conservative responses in the decision-making task. These results, which are illustrated in Figure 1, are consistent with a conservative shift linked to the imminence of the plebiscites.

Figure 1. Proportions of liberal responses in each one of the political dilemmas employed in the decision-making task, for participants who performed the task the month before, in the same week as, or the week after the Brexit Referendum and the Spain 2016 General Election took place.

9. Conclusion

The results of this study indicate that the proximity to very significant and uncertain elections has been associated with a conservative shift. It appears that the key element for this shift emerging has been the imminence of the plebiscites, probably associated with the climax of the pre-electoral campaigns. The effect of political uncertainty found in this study appears to have acted as expectancy. After the results of the ballots were known, the effect appears to have vanished, even though the results have not ended the uncertainty: no absolute majority for any party was obtained in the Spain Election, and the exit of the United Kingdom involves more unknowns than its permanence.

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FAMILY FUNCTIONING, SOCIO-ECONOMIC STATUS AND ADOLESCENTS' DEPRESSIVE SYMPTOMS: THE MEDIATING ROLE OF HOPELESSNESS

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Abstract

Research has shown that difficulties in family functioning contribute to developing adolescents' depressive symptoms. Additionally, little research has been conducted in order to analyze socio-economic status (SES) differences in the relationship between family functioning and adolescent depressive symptoms. This study examined the relationships between the family variables included in the MacMaster Model of Family Functioning (MMFF), SES and depressive symptoms, as well as the mediating effects of hopelessness. Participants were 643 adolescents aged 12 to 18 years (49% male) drawn from secondary schools in Málaga (Spain). They completed the Family Assessment Device, the Beck Depression Inventory, the Beck Hopelessness Scale, and a socio-economic measure. We used conditional process analysis to test the moderation effect of gender and a dual mediation model with family functioning and hopelessness as mediators. Results showed that both family functioning as a whole and each MMFF variable, as well as SES, predicted adolescents' depressive symptoms. In addition, gender moderated the relationship of roles assignment and behavioral control with adolescents' depressive symptoms, which suggests the need for interventions directed to enhance family rules and boundaries, especially for boys. Finally, we found a serial mediational role of family functioning and hopelessness in the relationship between SES and depressive symptoms, suggesting that the effect of family SES on adolescents' depressive symptoms through the development of hopelessness should also be targeted.

Keywords: Family functioning, adolescent depression, socio-economic status, hopelessness, gender.

1. Introduction and objectives

Family functioning has demonstrated to be a strong risk factor for developing depressive symptoms during adolescence, which has been primarily defined by broadband variables like family cohesion, warmth, acceptance or support, which represent family as a whole (Guassi Moreira & Telzer, 2015). However, it is necessary to carry out a more fine-grained analysis of the specific family functioning variables that affect adolescent depressive symptoms and this is the main purpose of this study. With this purpose, the variables of the MacMaster Model of Family Functioning (MMFF; Miller, Ryan, Keitner, Bishop & Epstein, 2000) were used in this study, which have been found useful in distinguishing healthy and unhealthy families in clinical and research settings. Research has shown that adolescents' global scores of the MMFF are related to their depressive symptoms (Millikan, Wamboldt & Bihun, 2002). However, no study to date has examined the relationship between adolescents' perceptions of the specific family functioning variables and their depressive symptoms. In addition, the few studies that have examined whether the relationship between family functioning and adolescent depressive symptoms is moderated by gender have yielded mixed results. Thus, whereas several studies have shown that family cohesion has a protective role in girls (Guassi et al., 2015), others have failed to find gender differences (Houltberg, Merten & Robinson, 2011).

Additionally, although only a few studies have explored the role of family socio-economic status (SES) on adolescent emotional problems, they have consistently found that SES is a good predictor of depressive symptoms at these ages (Eley et al., 2004). In particular, these authors found that education of parents was a strong predictor of depressive symptoms for their adolescent offspring. However, the question remains regarding the mechanisms by which SES contribute to depressive symptoms at these

ages. Previous studies have shown parenting practices being poor in low-SES families, and that the effect of SES on adolescent depressive symptoms is mediated by parental nurturance (Azad, Blacher & Marcoulides, 2014). In addition, Rekart, Mineka, Zinbarg and Griffith (2007) suggest a role of perceived control as a mediator of the relationship between parental care and subsequent depressive symptoms. Thus, we hypothesized that hopelessness can be one of the processes by which family functioning affect depressive symptoms in adolescents.

In summary, the purposes of this study were the following: First, to examine the contribution of SES and the family variables included in the MMFF to predict depressive symptoms in adolescents. Secondly, to examine whether the relationships between these variables and adolescent depressive symptoms were moderated by gender. Thirdly, to test a dual serial mediational model in which the relationship between SES and depressive symptoms would be mediated in turn by family functioning and hopelessness.

2. Method

Our sample consisted of 643 secondary-students between 12 and 17 years old. To assess the specific variables of family functioning, and its overall functioning, we used the Family Assessment Device (FAD; Epstein, Baldwin & Bishop, 1983), the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock & Erbaugh, 1961) to assess depressive symptoms, the Hopelessness Scale (HS; Beck, Weissman, Lester & Trexler, 1974) to assess hopelessness expectations, and finally, to measure SES, a six-item scale was created for this study based on the education and occupation of the parents, and on housing conditions. All these scales showed good internal consistencies in our sample, with ranges of .65 to .89.

3. Design and results

We conducted six regression equations in which we included the socio-demographic variables (gender, age and SES) in step 1, each of the family functioning variables in step 2, and the moderation effects of the socio-demographic variables by the FAD dimensions in step 3. In step 1 we found that only SES predicted depressive symptoms (β = -.12; $p \leq .01$); in step 2 we found that all the family functioning variables predicted depressive symptoms (β between .24 and .34, all $ps \leq .001$), and in step 3 we found that gender moderated the effects of family difficulties in roles assignment (β = -.14; $p \leq .05$) and behavioral control (β = -.12; $p \leq .05$). Moderation effects were plotted in order to allow their interpretation. As the pattern was fairly the same, Figure 1 shows the gender moderation of the association between behavioral control and depressive symptoms. As can be seen, there is a significant steeper slope for boys compared with girls, illustrating that the effect of the family dysfunction was higher in boys. Finally, the dual serial mediational model in Figure 2 shows that the direct effect of SES on depressive symptoms was non-significant while the indirect effect through family functioning and hopelessness was significant (indirect effect: -.32; 95% CI: -.82, -.13), thus indicating a total mediation effect.

4. Discussion

Concerning the effects of family functioning and SES on adolescent depressive symptoms, our findings showed that the more dysfunctional the family is, the more likely depressive symptoms will be experienced, and that a lower family SES contribute to adolescents experiencing higher depressive symptoms. These results support previous findings that adolescents from deprived socio-economic backgrounds tend to suffer more depressive symptoms (Eley et al., 2004), and suggest a mechanism to explain this relationship. Specifically, our results suggest that low SES would generate a poor family functioning, which in turn would generate hopelessness expectations in adolescents, and finally depressive symptoms. Finally, our findings showed that gender moderates the relationship of roles assignment and behavioral control with adolescents' depressive symptoms, thus suggesting the need of family rules and boundaries, especially for boys, in order to prevent depression.

Figure 1. Gender moderation of the association between Behavioural Control and BDI.
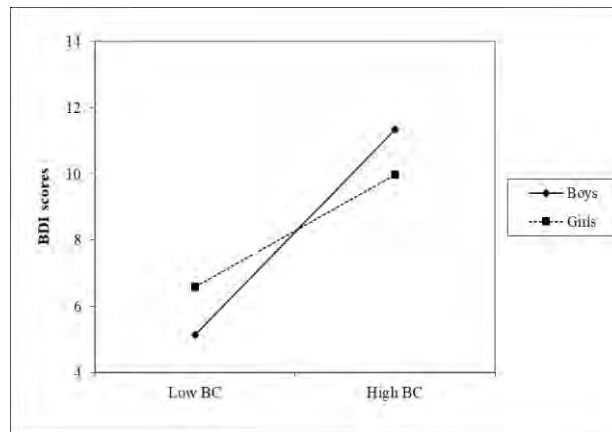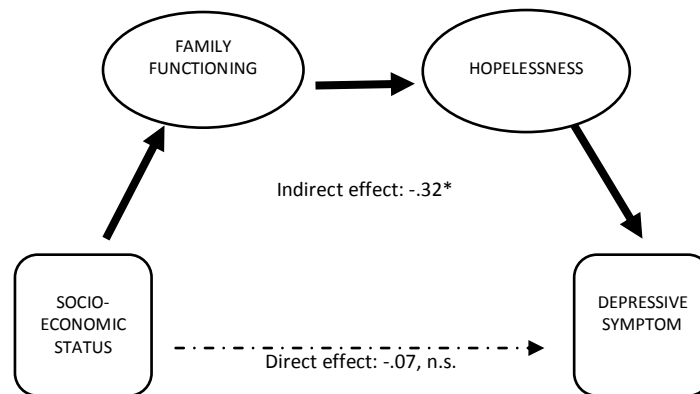

Figure 2. Serial mediational model to predict depressive symptoms from SES through family functioning and hopelessness.

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THE EFFECT OF MENTAL HEALTH AND SOCIAL SKILLS ON SATISFACTION WITH SCHOOL LIFE

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Abstract

The first three months of the semester are a critical period for university freshmen to adjust to a new academic environment and they should receive appropriate support to ensure their academic success. This study examines the effect of mental health status and social skills on school satisfaction. The University Personality Inventory (UPI) and Kikuchi's Scale of Social Skills (KiSS-18) were utilized with the female freshmen in a university immediately after the commencement of the semester in April, and Hyper-QU (scales to measure school satisfaction and motivation for school life) was administered to the same students three month later in July.

After data collection, a *t*-test was conducted to examine the differences between 38 UPI screened students who were advised to take counselling and the remaining 176 students. The results showed that significant statistical differences were found between the two groups in both aspects of school satisfaction (Approval and Maladjustment, *p*<.01) and 2 motivational factors (Friendship and Classroom Relationship, *p*<.05). In addition to the *t*-test, a multiple regression analysis was conducted and the results are as follows: 1) KiSS-18 and two factors of UPI, specifically Depression and Positive items, were significant predictors of one aspect of school satisfaction - Approval. 2) KiSS-18 and two factors of UPI (Depression and Obsession) were significant predictors of the second aspect of school satisfaction - Maladjustment.

The results from two analyses indicate it is important to utilize these scales to identify the students who need support in the early phase of school life.

Keywords: College student, mental health, school adjustment, UPI, Hyper-QU.

1. Introduction

According to Trow (1976), there are three developmental phases of university: Elite, Mass and Universal. In Japan, the shift to the Universal from the Mass occurred in 2005 (Katase, 2007). Since this shift, the number of students who suffer from maladjustment or drop out of university has been increasing. In the decade before the shift to the Universal, adjustment to university life was up to the students. However, to help students adjust to university life, active support at the university level seems to be increasing.

There are many factors to adjust the university, such as good relationships with friends, the desire to learn, the opportunity to pursue interests and the sense of belonging. Moreover, it is important to pay attention to students' mental health status in terms of adjustment. To check mental health status of university students, the University Personality Inventory (UPI) was developed in Japan (1966). This questionnaire is widely used in universities in Japan or China. It is also used for screening mentally unhealthy students and introduces them to the support system in a university, such as counselling. The relationship between UPI and school adjustment was examined (Musashi, et al. 2012), but there is no research that examines the impact of mental health status at university entry on the adjustment to school after several months in a longitudinal study.

2. Objectives

The purpose of this research is to examine the effect of mental health status and social skills on a school satisfaction scale. The research questions are as follows.

1) Among the measurements of mental health status and social skills, which factors affect students' school satisfaction and motivation in three months after entering university?

2) What are the differences between the students who are advised to take counselling based on the result of UPI and the other students in terms of adjustment to school?

3. Method

The first research project was conducted in 2017. The author implemented the UPI questionnaire (Japan University Health Association, 1966) and KiSS-18 (Kikuchi, 1988/2004) during the orientation session for the 239 freshmen in April. After one month, the students with a high UPI score (Oka, et al, 2015) were recommended to visit the student counselling office. 36 students received the recommendation, and 11 participated in the initial counselling, and 6 continued the counselling session afterwards.

The second research project was conducted in July of 2017. 237 freshmen took Hyper-QU for university (Kawamura, 2014). Hyper-QU is consisted of school satisfaction scale, motivation for school life scale, social skill scale, the questionnaire of mental problems. Only the school satisfaction scale and motivation for school life scale were utilized for analysis. 5 unidentified and 1 incorrect data points were excluded from the analysis. Among 220 students who agreed to participate in these study, data from 214 freshmen who answered all three were used in the analysis.

4. Result

Table 1 shows the descriptive statistics of UPI and KiSS-18, and the correlation coefficients of factors/ scales.

Table 1. Mean, SD and correlation coefficient of UPI and KiSS – 18.

Scale	Factor	M	SD	correlation coefficient					
				(1)	(2)	(3)	(4)	(5)	KiSS-18
UPI	TOTAL	14.7	10.58	-	-	-	-	-	-
	(1) Physical/Mental Subjective Symptoms	3.6	3.06	-	.582**	.568**	.537**	-.234**	-.169*
	(2) Depression	5.7	4.51		-	.771**	.693**	-.356**	-.388**
	(3) Social Anxiety	3.1	2.61			-	.767**	-.346**	-.416**
	(4) Obsession	2.6	2.41				-	-.217**	-.282**
	(5) Positive Items*	1.7	1.28					-	.305**
KiSS-18	(Social Skill)	56.9	11.07						-

* excluded from TOTAL   ** *p* <.01   * *p* <.05

The UPI results are similar to those of Musashi, et al.(2012), however the scores for Physical/Mental Subjective Symptoms and Depression in this study are 1.0 higher. The score for KiSS-18 is also similar to Kikuchi (2008). Moderate or strong correlations are observed among factors of UPI. Therefore, considering multicollinearity, the regression model is adjusted by deleting the factors which show moderate / strong correlation.

Table 2 shows the descriptive statistics of the Hyper-QU (School Satisfaction Scale and Motivation for School Life Scale). In addition to the results of whole students, UPI high/low score group results, and the results of *t*-test score are included into the table.

Table 2. Mean, SD, t-test score of school satisfaction scale and motivation for school life scale.

(*N*=214)

Scale		Factor	Total		UPI high G (*N*=38)		UPI low G (*N*=176)		*t*
			M	SD	M	SD	M	SD	
H y p e r - Q U	School Satisfaction	Approval	52.6	8.89	48.3	11.14	53.6	8.09	-2.758**
		Maladaptation	25.7	8.06	31.3	9.01	24.5	7.32	4.344**
	Motivation	Relationship with Friend	22.7	2.75	20.9	4.36	23.1	2.08	-4.739**
		Desire to Learn	19.9	3.02	19.0	3.99	20.1	2.75	-1.617
		Relationship with Teacher/Staff	19.2	3.69	18.7	4.22	19.3	3.58	-.768
		Support System of College	18.5	3.10	18.2	3.93	18.6	2.90	-.678
		Career Consciousness	19.2	4.37	17.8	5.44	19.5	4.06	-1.845 †
		Relationship with Classmate	19.0	4.01	16.9	5.20	19.5	3.56	-2.989**
		TOTAL	118.5	16.68	111.4	22.05	120.1	14.96	-2.309*

** *p*<.01 * *p*<.05 † *p*<.10

From the results of the t-tests between 38 UPI screened students who were advised to take counselling and the remaining 176 students, significant statistical differences were found between the two groups in school satisfaction (Approval and Maladjustment, $p<.01$) and 2 motivational factors (Friendship and Classroom Relationship, $p<.05$).

A multiple linear regression was calculated to predict Approval (See Table 3) based on 5 UPI factors (Symptoms, Depression, Social Anxiety, Obsession, Positive Items) and the KiSS-18 data (Social Skills). A significant regression equation was found ($F(3,208)=28.832$, $p<.01$), with an R^2 of .29. KiSS-18, Positive Items, and Depression are significant predictors of Approval (Table 3).

A multiple linear regression was calculated to predict Maladjustment based on 5 UPI factors and KiSS-18. A significant regression equation was found ($F(3,208)=18.447$, $p<.01$), with an R^2 of .19. Depression and KiSS-18 are significant predictor of Maladjustment (Table 4).

Table 3. The result of multiple regression analysis approval ($R^2=.29$).

	β
KiSS-18	.358**
Positive Items	.258**
Depression	-.137*

** $p<.01$ * $p<.05$

Table 4. The result of multiple regression analysis maladjustment ($R^2=.19$).

	β
Depression	.323**
Kiss-18	-.187**

** $p<.01$

5. Conclusion

The results from this study show that the mental health status at school entry affects the adjustment to the school life three months later. In addition, the students who need counselling are different from the other students with regard to adjustment to school. A noticeable factor is in relationship with friends and classmates. It indicates the importance of support for the students who have mental health problems and weak communication skills. The school should take an active role to support these students to ensure successful adjustment to school.

The limitation of this study is the sample selection. This study focused on only female students but as Musashi, et al. (2012) suggested, there are no significant differences in school satisfaction between male and female students even though female students show unhealthy mental health condition.

In a future study, I would like to conduct research on both male and female students and continue investigating the practical approach for increasing school satisfaction.

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THE EFFECTS OF MUSIC LISTENING ON THE PULSES AND EMOTIONAL REGULATIONS OF THE COLLEGE STUDENTS

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Abstract

The purpose of the present study was to examine the effect of music on emotions and the pulses of college students. Positive emotions enhance people to extend their resources for better adjustment to emotional disturbances. Music was found to elicit people's positive as well as negative emotions under certain circumstances. In the current study, there were 52 college students (11 males, 41 females) who enrolled in a general study class voluntarily participated the test. The researchers were interested in how music would change the pulse and emotion after listening to four different styles of musical pieces, including a piece of light music, a western popular song, an old-time melody, and a Chinese popular song. The participants were explained the purpose of the test and asked to measure their own pulses before and after the researcher delivered the music repertory piece by piece. Each piece of music was playing around one minute with an interval of a few minutes for people to write down their comments to the emotional aspect of the musical piece. Toward the end of listening, the students were asked to measure their pulses again. A set of questionnaires was adopted to detect what the students used for emotional regulation while listening to music, either under a conscious or non-conscious state. The students were asked to answer what types of music, what kind of strategies, and the successful rate of the strategies for them to regulate emotions. The results indicated that students' pulses decreased significantly after listening to music. Positive emotions were reported as a major proportion and most of the time in a non-consciously fashion to help the students to regulate their emotions. Relaxation and distraction were recognized as the mostly adopted strategies for emotional regulations of the students. The pieces of the Chinese popular song and the western popular song were rated as the most favored musical styles by the students. A follow-up study will be conducted with further evidence on the findings of effects of music on emotional regulation of college students.

Keywords: College students, emotional regulation, music, pulses.

1. Introduction

The broaden-and-build theory of positive emotion has made a valuable contribution to our understanding in the positive effect on expanding novel thoughts and actions (Fredrickson, 2001). Positive emotion facilitates coping skills and adjustment in stressful disturbance. People can have positive-action exercises to lift up their mood and create an upward spiral of positive emotions to maintain health. Music is a prominent part of our daily life and we often regulate emotions by listening to our music of choice. Music has been found to evoke various emotions in listeners. There are numerous studies provided a proof of concept to psychological functions with music-induced feelings. Whether music types or perceived emotions are, familiarity and preference are positively correlated (Fung, 1996; Zissman & Neumark, 1990). It's easier for people to feel positively while listening to familiar music than unfamiliar one. In other hand, listeners may feel unpleasant easily while listening to unfamiliarly music (Ritossa & Richard, 2004). Van Goethem and Sloboda (2011) indicated that the six strategies (distraction, relaxation, actively coping, venting, introspection, and rational thinking) were used to regulate emotion while people listen to music. Otherwise, the perceived emotion and felt emotion were discussed (Gabrielsson, 2001), both of them indeed differed from each other substantially. Perceived emotion refers to emotion that we listen to a piece of music and we can recognize objectively the music as being happy or sad. On the contrary, felt emotion is referred to emotion that we experience or feel emotion subjectively. The aim of this present study was to investigate the effectiveness of the psychological functions in the course of music listening. It was hypothesized that: (1) Participants would find what their emotional awareness and emotional regulation strategies are. (2) The rate of participants' pulses would slow down after listening to familiar music. (3) The participants would feel positively though they perceive negative emotion by music.

2. Method

2.1. Participants

A pilot study of positive emotion with music listening was conducted amongst 52 college students (11 male and 41 female) from a general class in a northern university in Taiwan (11 Freshman, 16 sophomores, 19 junior, and 6 senior students).

2.2. Materials

Taiwanese college students' favorite music styles were Chinese popular songs, western popular songs, and light music/crystal music in order (Hsu, Shih, Chen, Hsieh, & Lin, 2010). In this study, a representative old song was added to the music repertory (Table 1).

There were three parts of the questionnaires. The first part was the basic information, including sex and age. The second part was to detect the perceived emotion and the felt emotion which were elicited in the course of music listening, and which strategies the participants used for emotional regulation. The final part is to survey what types of music, what kind of strategies, and the successful rate of the strategies for college students to regulate emotions in their everyday life.

2.3. Procedure

(1) The participants were explained the purpose of the test.

(2) The participants were asked to measure their own pulses before the researcher delivered the music repertory.

(3) Each piece of music was playing around one minute with an interval of a few minutes, the participants wrote up their comments to the perceived emotion and felt emotion of the musical piece.

(4) Toward the end of listening, the participants were asked to measure their pulses again.

(5) The participants were asked to write down their music listening of the daily life.

3. Results

The results showed a significant pre- to post-test difference in measure of the pulse, $t(49) = 2.366$, $p = .022$ ($M1 = 76.98$, $SD1 = 9.690$; $M2 = 75.18$, $SD2 = 9.733$), the rate of post pulses reduced after listening to music. In other hand, participants had positive emotion to decrease pulse after listening to music.

In the piece of Chinese popular music, there were 40.4% of participants perceived negative emotion, but the 38.5% of them would feel positive emotion after listening to music (Table 2). Music rated as sad or fearful still made listeners produce positive affect.

Relaxation and distraction were recognized as the highest rates of strategies for emotional regulations of the participants (Table 3), and most of them regulated emotion under a non-conscious state (88.5%). For college students, relaxation, venting and distraction were rated as the highest rates of strategies for emotional regulations in their daily life (Table 4) and the successful rate of the strategies was also high ($Mean = 7.70$, $SD = .425$). Chinese popular song and western popular song were rated as the most favored musical styles (Table 5).

4. Discussion and conclusion

Overall, the findings of this study indicted support for the hypothesis and corresponding to what have been found from the previous studies. The results indicated that positive emotion was evoked easily by music, although sad music is perceived as not happy, listeners actually feel positive emotions concurrent with sadness. The rate of the participants' pulses was decreased after listening to music. College students preferred popular music, either Chinese or Western, and the successful rate of strategies was high. However, there were a number of limitations to this study. The future study would need to include a broader pool of participants and the measurement of emotional function via scale. The music repertory also needs to be considered the influence of music lyric or music type. Indeed, positive emotion is an important factor of our heath, both physically and psychologically. To possess an understanding of positive emotions with music listening and to cultivate meaningful emotional regulation strategies to adapt in response to negative circumstances would be a new direction for the future research.

Table 1. Music repertory.

Music Type	Music Title	Singer/Performer
Light Music (1997)	Morning mist	Carsten Rosenlund
Western Popular Music (2017)	Something Just Like This	The Chainsmokers & Coldplay
Old Song (1977)	The Moon Represents My Heart	Teresa Teng
Chinese Popular Music (2017)	Stranger in The North	Namewee Leehom Wang

Table 2. The perceived emotion and felt emotion of four different types of music pieces.

Music type	Perceived emotion	Felt emotion
Light Music	Neutral (88%)	Neutral (50%)
Western Popular Music	Positive (63.5%)	Positive (50%)
Old Song	Positive (51.9%)	Positive (61.5%)
Chinese Popular Music	Negative (40.4%)	Positive (38.5%)

Table 3. Emotional regulation strategies with music listening.

Emotional regulation strategies	n	M	SD
Distraction	30	.58	.499
Relaxation	40	.77	.425
Actively copying	23	.44	.502
Venting	19	.37	.486
Introspection	10	.19	.398
Rational thinking	12	.23	.425
Others	3	.06	.235

Table 4. Emotional regulation strategies with music listening in daily life.

Emotional regulation strategies	n	M	SD
Distraction	21	.41	.497
Relaxation	26	.51	.505
Actively copying	12	.24	.428
Venting	24	.47	.504
Introspection	7	.14	.348
Rational thinking	11	.22	.415
Others	0	.00	.000

Table 5. Music type listening.

Music type	n	M	SD
Chinese popular	43	.83	.382
Western popular	44	.85	.364
Jazz	8	.15	.364
Classic	14	.27	.448
Rock	11	.21	.412
Anime	13	.25	.437
Electronic	22	.42	.499
Meditative,	6	.12	.323
Folk	6	.12	.323
Heavy Metal	1	.02	.140
Hip-Hop	16	.31	.466
Others	7	.13	.345

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FACTORS LINKED TO SELF-HARMING BEHAVIOUR AMONG ADOLESCENTS

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Abstract

Background: Adolescence is the period in which intentions of self-harming thoughts and behaviour are initiated and may escalate. Many difficulties during adolescence are associated with significant changes in the psychological and social development of adolescents. Self-esteem, self-control and social support seem to be important factors related to such behaviour.

Aim: The study explored the relationship between self-harming thoughts/behaviour and self-esteem, self-control and social support.

Methods: A representative sample of 572 (50.1% male) elementary school pupils (age: M=12.49 years, SD=0.59 years) was collected within a project aimed at school-based universal prevention. The respondents completed the Self-Control Scale, the Self-Esteem Scale, and the Resilience and Youth Development scale, and they were also asked if they had ever thought of harming themselves or if they had tried to harm themselves. Binary logistic regression was used to analyse the data.

Findings: Self-harming thoughts of adolescents were only found to be negatively associated to self-control (p = 0.009) and self-esteem (p<0.001) (while self-harming behviour was negatively linked to self-esteem (p<0.001), self-control (p = 0.018) and social support at home (p=0.010)). Our data did not support the existence of gender differences.

Conclusions: The study contributed to the understanding of reasons behind self-harming behaviour among juveniles and it confirmed the importance of self-esteem, self-control and social support in predicting such forms of behaviour among adolescents. The results strengthen our understanding of the mechanisms that lead to self-harming behaviour and this is key in prevention programmes.

Keywords: Self-harming behaviour, self-harming thoughts, self-esteem, self-control, social support, adolescents.

1. Introduction

Adolescence is the period in which self-harming behaviours including running away from home, intention of harming oneself and suicide attempts are initiated and may escalate. Many of the adversities and difficulties during adolescence are associated with significant changes in the psychological and social development of young girls and boys (Oshio et al., 2003). Various problems in adolescence often lead to desires to escape from reality and tend to promote self-harming behaviour or opposition towards a perceived unsatisfactory family environment. Any kind of self-harming behaviour including suicide attempts during adolescence is a high risk behaviour for safety and health. Such forms of problem behaviour have severe consequences (Kokkevi et al., 2014). Approximately 20 % of European school adolescents have reported self-destructive thoughts and/or behaviours (Cheng et al., 2009; Toro et al., 2009 in Cruz et al. 2013).

Self-esteem and self-control seem to be relevant factors linked to problem behaviour of early adolescents. Low levels of self-control have been associated with behavioural problems (Finkenauer, Engels, & Baumeister, 2005). Parental interest reduces the behavioural and emotional problems of young people (Finkenauer, Engels, & Baumeister, 2005). Wills, Mariani, and Filer (1996 in Barnes et al., 2006, p. 1085) have stated that "support from parents is the glue that bonds adolescents to mainstream institutions and builds self-control." The factor which seems to be negatively associated to the tendency of harming oneself is self-esteem (Cruz et al., 2013). Self-harming behaviour of adolescents is a complex and multifactorial phenomenon but until now there has been no empirical evidence that parental interest and support control are relevant protective factors of such behaviour (Wong, Man, & Leung, 2002 in Cruz et al. 2013).

2. Objectives

The study explored the relationship between self-harming thoughts/behaviour and self-esteem, self-control and social support represented by supportive relations at home, at school and with some adults from community and with friends.

3. Methods

3.1. Sample
The research sample consisted of 572 early adolescents (50.1% boys, Mean age=12.49; SD=0.59) from a stratified random sample consisting of pupils of primary schools from Slovakia. The data was collected within a project aimed at school-based universal prevention.

3.2. Measures
The respondents completed the Self-Control Scale, the Self-Esteem Scale, and the Resilience and Youth Development scale, and they were also asked if they had ever thought of harming themselves or if they had tried to harm themselves. Binary logistic regression was used to analyse the data.

The dependent variables consisted of answers to questions concerning intention of thinking about harming oneself and about real attempt to harm oneself. The variables were dichotomized: 0 = no self-harming behaviour occurred; 1 = self-harming behaviour occurred one or more times.

The Self-Control Scale (Finkenauser, Engels, & Baumeister, 2005) consisted of 11 items and respondents could answer on a five-point scale (1 = never, 5 = always). A higher score indicated a higher level of self-control. The Cronbach alpha was 0.574.

Self-Esteem scale (Rosenberg, 1979) consisted of 10 items. Respondents could answer on a four-point scale. The higher score represented a higher level of self-esteem. The Cronbach alpha was 0.709.

Support from parents, teachers, community and friends was measured by the Resilience and Youth Development Module (Furlong, Ritchey, & Brennan, 2009). There was a five-point answer scale. A higher score represented a higher level of support. Each domains of social support were represented by three items. The Cronbach alpha of social support scales were: home – 0.829, school – 0.690, community – 0.881 and friends – 0.897.

3.3. Statistical analysis
Binary logistic regression was used for data analysis. We created two models, separately for both types of self-harming behaviour. As dependent variables (dichotomized) we used thoughts of harming oneself and real attempts to harm oneself. The models consisted of seven independent variables (gender, self-control, self-esteem, supporting relations at home, at school, with some adults in community and with friends).

4. Results

About 39 % of adolescents in the research sample reported self-harming thoughts and about 19% of them reported that they had tried to harm themselves.

The self-harming thoughts of the primary school pupils were negatively significantly associated to self-control (p< .009) and self-esteem (p<.001) (Table 1).

Table 1. Regression model for self-harming thoughts among Slovak adolescents.

Cox & Snell R^2 = .150 Nagelkerke R^2 = .204	B	Sig.	Exp (B)	95% C.I.for EXP(B)	
				Lower	Upper
Gender	-.073	.770	.930	.570	1.517
Self-esteem	-.190	**<.001**	.827	.770	.889
Self-control	-.051	**.009**	.950	.915	.987
SR - home	-.039	.501	.962	.858	1.078
SR - school	-.039	.469	.962	.865	1.069
SR - community	-.013	.752	.987	.910	1.071
SR- friends	.065	.196	1.067	.967	1.176
Constant	6.662	**<.001**	781.765		

Note: SR - supportive relations

The self-harming behaviour was found to be significantly negatively associated to self-esteem (p<.001), self-control (p = .018) and supportive relations at home (p = .010). There were no significant

associations between self-harming behaviour and supportive relations at school, community and with friends (Table 2). Our data did not support the existence of gender differences in self-harming thoughts or behaviour.

Table 2. Regression model for self-harming behaviour among Slovak adolescents.

Cox & Snell R^2 = .128 Nagelkerke R^2 = .207	B	Sig.	Exp (B)	95% C.I.for EXP(B)	
				Lower	Upper
Gender	.237	.447	1.268	.688	2.337
Self-esteem	-.187	**<.001**	.830	.761	.904
Self-control	-.057	**.018**	.945	.902	.990
SR - home	-.170	**.010**	.843	.740	.961
SR - school	.051	.452	1.053	.921	1.203
SR - community	.043	.426	1.043	.940	1.159
SR- friends	-.045	.446	.956	.853	1.073
Constant	6.608	**<.001**	741.098		

Note: SR - supportive relations

5. Discussion and conclusion

Self–control and self-esteem seem to be important factors associated with thinking about harming oneself among Slovak adolescents. But real attempts of harming oneself are also significantly associated to support at home, especially from parents. The probability intention of harming oneself and attempts to harm oneself was lower in adolescents with a higher level of self-control and self-esteem. The same held for students supported by their parents more strongly. The results are consistent with some previous research (Cruz et al., 2013; Donnellan et al., 2005; Finkenauer, Engels, & Baumeister, 2005; Kelly et al., 2012).

The study contributed to the understanding of reasons behind self-harming behaviour among juveniles and it confirmed the importance of self-esteem, self-control and parental support in predicting such forms of behaviour among adolescents. The results strengthen our understanding of the mechanisms that lead to self-harming behaviour and this is key in prevention programmes.

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ATTENTION DEFICIT HYPERACTIVITY DISORDER IN ADULTS: THE PREVALENCE OF INATTENTIVE VS. COMBINED SUBTYPES IN A LARGE CLINICAL SAMPLE

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Abstract

Adults with Attention Deficit Hyperactivity Disorder (ADHD) experience a variety of impairments in terms of wellbeing, psychosocial functioning, and occupational functioning (Montes et al., 2007; Eakins, 2001; Hennig et al., 2017; Brod et al., 2005; Barkely et al, 1996; Wilens et al; 1997; Schubiner et al., 2000). This study aims to examine ADHD as a neuro-developmental disorder that persists across the lifespan, recognizing that while this disorder is often diagnosed in childhood, significant functional impairments transcend life stage (Montes et al., 2007; Eakins, 2001; Hennig et al., 2017; Brod et al., 2005; Barkely et al, 1996; Wilens et al; 1997; Schubiner et al., 2000). This study serves to further explore the ratio of inattentive to combined ADHD subtypes in an adult clinical sample (N=268) in a large metropolitan ADHD clinic. Over a 24-month period, participants completed the CAARS (S:L), CAARS (O:L), ASRS-v1.1, the Wender Utah, and a DSM-V-based structured diagnostic interview by a staff clinician and a team psychiatrist. The results of our study indicated that 39.55% (N= 106) of patients were diagnosed with the Inattentive Subtype and 60.44% (N=162) were diagnosed with Combined Subtype.

Keywords: ADHD, subtypes, impairment, prevalence, adult.

1. Objective

Attention Deficit Hyperactivity Disorder (ADHD) is a commonly diagnosed, neurobiological disorder, effecting individuals across the lifespan. While ADHD is often conceptualized as a childhood illness, we now understand that it often persists into adulthood, in approximately 42% of cases, and may continue to present functional impairments (Eakin, 2001) (Montes, Garcia & Ricardo-Garcell, 2007). ADHD consists of subtypes that are characterized by distinct symptomology and associated comorbid disorders (American Psychiatric Association, 2013). The intent of this poster is to explore the ratios of ADHD Inattentive Type and Combined Type, examining an adult, clinical population. The ratios of these subtypes are significant to understand because of the varying personal, social and occupational implications across diagnoses.

2. Background

While the body of research on ADHD subtypes focuses primarily on children and adolescence, these trends are significant to note as many themes may persist into adulthood. According to a meta-analysis in 2003, children diagnosed with Inattentive Type have fewer overall functional impairments and are more likely to be diagnosed with the following comorbid disorders: anxiety, depression and learning disorders (Collings, 2003). Female youth are more represented in the Inattentive Type and these children are less likely to receive medical intervention for their symptoms, suggesting that behavioral modifications or other non-medical treatment interventions are effective in reducing impairment (Collings, 2003). Conversely, children with Combined Type experience greater functional impairment, specifically suspension or expulsion, and are more likely to be diagnosed with comorbid conduct or oppositional disorders (Collings, 2003). This finding of greater functional impairment for individuals with Combined Type versus Inattentive Type has been consistent in adult, clinical populations (Kooij, Sandra, Buitelaar,

Furer, Rijnders & Hodiamont, 2005). While this pattern persists across the lifespan, it is significant to note that hyperactivity symptoms generally diminish with age while symptoms of inattention generally remain constant (Collings, 2003).

A qualitative study focusing on clinic-referred adults, examined the psychosocial impact of ADHD on aspects of daily living (Eakin, 2001). These adults also reported higher rates of difficulty in marital adjustment and a high proportion of their spouses (93%) reported having to compensate in some form for their partners ADHD related difficulties (Eakin, 2001).

A quantitative, self-report study conducted in 2017, found that adults diagnosed with ADHD report significantly lower rates of life satisfaction compared to their neuro-typical counterparts (Hennig, Koglin, Schmidt, Petermann, & Brahler, 2017). This negative correlation between ADHD symptoms and life satisfaction were consistently reliable, even when risk factors for poor life satisfaction were controlled for (Hennig, Koglin, Schmidt, Petermann, & Brahler, 2017).

It is important to understand the ratio of different subtypes in adult populations because these subtypes could have distinct personal, social, and occupational implications. General themes of functional impairment have been substantiated for adults with ADHD, including poorer results on cognitive tests, poorer job performance and a greater risk for substance use (Brod, Perwien, Adler, Spencer & Johnston, 2005; Barkely, Murphy & Kwasnik, 1996; Wilens, Biederman, Mick, Faraone & Spencer; 1997; Schubiner et al., 2000). Further research dedicated to understanding the ratios of different subtypes and their unique implications could inform more intentional and effective treatment interventions.

3. Methods

The study sample is comprised of 268 clinically referred (ages 18-59) who were assessed and diagnosed with ADHD at a large metropolitan ADHD clinic. The cross-sectional data was collected over a 24-month period from self- and- observer reports. Patients completed the ASRS-v1.1 and underwent an extensive DSM-V-based structured diagnostic interview by a staff clinician and a team psychiatrist. Patients also completed the Connors Adult ADHD Rating Scales (both self (CAARS (S:L) and observer (CAARS (O:L)) reports) , the Adult ADHD Self-Report Scale (ASRS-v1.1), the Wender Utah Rating Scale for ADHD, and a DSM-V-based structured diagnostic interview by a staff clinician and a team psychiatrist. All diagnoses and treatment recommendations were made by a team psychiatrist. Outside of age, there were no other exclusion criteria specific to this study.

4. Results

The results of our study, with a clinic sample of patients with ADHD (N=268), were as follows: 39.55% (N= 106) of patients were diagnosed with the Inattentive Subtype and 60.44% (N=162) were diagnosed with Combined Subtype.

5. Discussion

Understanding the prevalence ADHD in adult populations is important due to the implications ADHD has on social functioning, occupational functioning, life satisfaction and associated risks (Montes et al., 2007; Eakins, 2001; Hennig et al., 2017; Brod et al., 2005; Barkely et al, 1996; Wilens et al; 1997; Schubiner et al., 2000). As such, the importance of understanding the variance in prevalence becomes an area of interest due to the reported differences in psychosocial functioning between inattentive and combined subtypes (Kooij, et al., 2005). The purpose of this paper was to explore the prevalence of the inattentive and combined subtypes of ADHD in adults in our clinical sample.

Previous studies contend that ADHD subtypes do not significantly differ across gender (Groß-Lesch et al., 2016; Grevet et al., 2006). The results of our study are consistent with that of other authors (Groß-Lesch et al., 2016; Grevet et al., 2006).

It is important to acknowledge the limitations of the present study. For example, a study conducted with adults with ADHD from a prison sample found that female inmates had higher rates of ADHD than male inmates and that hyperactive-impulsive was the most common subtype, followed by combined presentation (Cahill et al., 2012). As such, it is important to be mindful of context before making generalizations regarding the experiences of adults with ADHD. However, given the large sample size of this study, these results of this study can be considered in future research with clinical samples of patients with ADHD.

Another limitation of the presented study may lie in the diagnostic constraints for adults with ADHD. In the case of our study, the current diagnostic criteria may thus be limiting (Wilcutt et al., 2012) and may not provide an accurate framework to examine the implications of ADHD in adults.

6. Conclusions

The implications of the ADHD on the lives of diagnosed adults have been shown to be impairing, pervasive and significant across multiple domains of adult life (Montes et al., 2007, Eakins, 2001; Hennig et al., 2017; Brod et al., 2005; Barkely et al, 1996; Wilens et al; 1997; Schubiner et al., 2000). The authors of this paper contend that further research is needed to explore the impacts of ADHD on the lives of adults and the limitations posed by strictly clinical sample to better understand said implications. Further research examining the experiences of adults with different ADHD subtypes in adult clinical populations could provide more clarity in understanding the potential impact of ADHD on adults across multiple domains.

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FATHERING: EXPERIENCE IN THE FAMILY OF ORIGIN AND FATHER INVOLVEMENT

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Abstract

A quality relationship between father and child is significant for a child's development and mental health. Experiences in the family of origin could significantly influence the fulfillment of the father's role in the family of procreation. The present study investigates models of this role by analyzing the possibility of predicting father involvement in the family of procreation based on experiences related to the father in the family of origin. The research sample included 80 fathers of preschool children from a municipality in Serbia (Prokuplje). To evaluate the experience in the family of origin the Father Presence questionnaire (Krampe & Newton, 2006) was used, and to evaluate father involvement, the Inventory of Father Involvement – IFI (Bradford et al., 2002). An exploratory factor analysis of the questionnaire revealed four factors for data analysis. The results of a multiple regression analysis indicate that three factors of the Father presence questionnaire are significant predictors of the score on the IFI (R^2=.35, p<.01): Presence of the father and experience of a positive relationship between the parents (β=.29, p<.05); Understanding the importance of the presence and support of the father for the child's development (β=.24, p=.05); Negative experiences related to the presence of the father in the family of origin (β= -.21, p<.05). The mother's opinion of the father in the family of origin was not a significant predictor of the father's involvement. These results support the idea of a transgenerational transmission and modelling of the parental role based on the theory of social learning.

Keywords: Father involvement, presence of the father in the family of origin, modelling the parental role, transgenerational transmission.

1. Introduction

In recent decades, research results have reported the great importance of the father-child relationship quality for a child's development. Relations with the father are also associated with mental health quality throughout adolescence and adulthood (Hermansen, Croninger & Croninger, 2015). The father role is one of the significant developmental tasks of adulthood (Mihić, 2010). Fulfilling the role of a father is also related to certain benefits for men: they will most likely exhibit higher psychosocial maturity, be more satisfied with their lives, feel less psychological distress, as well as be more able to understand themselves, empathically understand others, and integrate their feelings in an ongoing way (Alen & Daly, 2007). Several factors determine father involvement: individual factors (men's relationships with their family of origin, socialization of boys in the fathering role, men's attitudes, motivation and skills) and family factors (maternal attitudes - mother as a gatekeeper; -child relationships) (Bornstein, 2002). The present study investigated the experiences of a father in the family of origin as potential predictors of father's involvement in child rearing in the family of procreation. There are currently two basic hypotheses, supported by various studies, regarding the influence of family-of-origin experiences (Bornstein, 2002), a modeling hypothesis that emphasizes the importance of the presence of a father who is a positive role model; and compensatory or reworking hypothesis suggesting that fathers tend to compensate or make up for the deficiencies in their childhood relationships with their own fathers by becoming better and more involved when they themselves assume this role.

2. Methods

2.1. Participants and procedures

80 fathers of pre-school children from a municipality in Serbia (Prokuplje) participated in the study. The participants gave their written consent and filled out questionnaires during the spring of 2017, either when taking children to kindergarten or when picking them up. The age of the participants ranged between 27 and 54 (M of age = 36, 44).

2.2. Measures

The Father Presence questionnaire (Krampe & Newton, 2006) was used to evaluate the experience in the family of origin. The scale included 69 items, and the participants were required to describe experiences regarding parental behavior and the role of father in their primary families by agreeing with statements on a 5-point Likert-type scale. Exploratory factor analysis revealed four factors: Presence of the father and experience of a positive relationship between the parents, Negative experiences regarding the presence of the father in the family of origin, the Mother's opinion of the Father, and Understanding the importance of the presence and support of the father for the child's development.
The Inventory of Father Involvement - IFI (Bradford et al., 2002), a short form of 26 items, was used to measure the father involvement.

2.3. Statistical analysis

Multiple regression analysis was used to test the basic hypothesis of this study. Sample size is close to the necessary - Tabachnick and Fidell (2007) proposed a formula for calculating the required sample size: $N > 50 + 8 * m$ (m = number of independent variables). The calculation gives number 82, and our sample consisted of 80 subjects. Since the deviation is not large, a planned data analysis was applied. However, this should certainly be considered as a limitation of the research.

3. Results

Table 1: Multiple regression analysis: subscales of Presence of the father in the family of origin as predictors of the level of father involvement (Enter procedure).

Model	R	R^2	Adjusted R^2	Std. Error	F	p
	0,59	0,35	0,32	7,20	10,11	0,00**

Note: ** p < .01

As shown in Table 1, the tested model is statistically significant, and the percentage of the explained variance shared by the set of predictors and the criterion of the level of father's involvement is 35%.

Table 2: Subscales of presence of the father in the family of origin as predictors of the level of father involvement.

Model	B	Std. Error	β	t-test	p	Partial correlation	Semipartial correlation
Constant	74,73	6,82		10,96	0,00**		
Presence of the father and experiences of a positive relationship between the parents	0,19	0,08	0,29	2,34	0,02*	0,26	0,22
Negative experiences related to the presence of the father in the family of origin	-0,33	0,15	-0,21	-2,18	0,03*	-0,24	-0,20
The mother's opinion of the father	0,37	0,22	0,19	1,70	0,09	0,19	0,16
Understanding the importance of the presence and support of the father for the child's development	0,37	0,18	0,24	2,04	0,05*	0,23	0,19

Note: ** p < .01; *p <.05

As shown in Table 2, statistically significant positive predictors of father involvement are the Father's Presence and Understanding the importance of the presence and support of the father for the child's development, while a significant negative predictor is Negative experience with a father in the family of origin. The mother's opinion of father (in the family of origin) in this sample is not a statistically significant predictor of involvement.

4. Discussion

As previously mentioned in the Introduction section, a number of factors determine fathers' involvement. One of them is the quality of a man's relationship with the family of origin. The results of the present study support the importance of this factor: the significant determinants of father involvement are precisely the Presence of the father and the experience of a positive relationship between parents. This result is in favour of a modelling hypothesis based on a social learning theory. The above mentioned hypothesis is also supported by the result indicating that negative experiences related to presence of the father cause lower level of father involvement in the family of procreation. Such relation is directly opposed to compensatory hypothesis. It can be concluded that the presence of a nurturant and accessible father in the family of origin is a very important determinant of fulfilling the parental role. The results presented herein support the idea of the importance of the attitudes of men regarding the significance of the father for a child's development. The mother's opinion of the father was not a significant predictor of father involvement in this study. The analysis of the content of this factor's items has revealed that the mother did not place a barrier on the influence of a father in the family of origin (the so-called gatekeeping), i.e., did not try to limit the father's influence on children.

5. Conclusion

Despite the awareness of the significance of the experience with a father in the family of origin for paternity in the family of procreation, it is difficult to apply this knowledge in preventive programs for the family. However, creating and implementing a program encourages the importance of understanding the significance of a father's presence and support. It can be assumed that awareness-raising programs and changing attitudes about the role of a father have direct effects on current fathers as well as prolonged effects, since their children will grow up with more accessible and nurturant fathers, thereby encouraging a more positive image of the father in the next generation of fathers.

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COGNITIVE AND MORAL ASPECTS OF CHILD DEVELOPMENT: FAIRY TALES IN MULTIMEDIA VERSION AND PIAGET'S FRAMEWORK

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Abstract

Studies on child development in their cognitive and moral aspects are recurring in researches with children. Jean Piaget's perspective of genetic epistemology assumes that there is an evolution of such aspects during childhood. In the research with children, fairy tales show up as a tool that arouse their interest, with which they identify themselves and how they are able to position themselves in relation to content of the tale. Such tool is characterized as a privileged way to access representation and explanation of the reality that children of different ages have. This research aimed to study aspects of cognitive and moral development of children through a fairy tale. The participants were 24 boys and girls aged 6/7 and 10/11, that after having access to the fairy tale "Hansel and Gretel" in multimedia version, were asked to reconstruct the story and answered to an interview based on the Piaget clinical method. The answers given by the children expressed their way of thinking, denoted their mental organization and how they see the world. The results related to the cognitive aspects pointed out that most children reconstruct the tale within the concrete way, and in the aspect of the moral development most children present a more heteronomous position to judge the actions of the characters. Such results reinforced the Piagetian idea of cognitive and moral development evolution throughout the childhood, enabled investigate the thought structure and language of children of the age groups studied. (Times New Roman, 10pt., justified)

Keywords: Fairy tales, Piaget's theory, childhood, cognition, morality.

1. Introduction

For Piaget (2010/1964) the capacity of representation begins to be developed in the children during the preoperational stage, since in this period the socialized language, along with the capacity to represent build up the child's contact with the social world and the internal representations, thus enabling her to represent events internally by way of thought. In addition, the author states that throughout development there is a gradual evolution of cognitive, affective and moral aspects in children.

According to Garbarino (2012) during the development of children there is a transformation of thought that does not commence with absolute beginnings, but really with the new always proceeding either through progressive differentiations, or gradual co-ordinations, or both; understanding that "development is progressive and that each period may present coexistence of elements of the former" (2012, p.165).

According to Cacciolari & Matsuda (2010), new technologies appear as a creation and a contemporary need within a culture that is mainly visual, and because they are attractive and dynamic, subjects tend to relate and be interested in them. Fairy tales, even of remote origin, have remained in our modern life, and this seems to be in some way justified by the man's sense of fascination and seduction by narratives.

According to Coelho (1991, p.10), "literature is undoubtedly one of the most significant expressions of this permanent yearning for knowledge and dominion over life, which characterizes manking of all times."

The present research, when asking children to reconstitute the story, aimed to study, mainly in the younger ones, cognitive aspects related to some phenomena of thought and the capacity of representation, possible to be observed in the language, described by Piaget, as juxtaposition of ideas; syncretism; absence of temporal, causal and logical relation; egocentric positioning; transductive reasoning; fantasy and imagination (Piaget, 1986/1966, 2010/1964). In relation to older children, the expectation was that they presented other characteristics such as: literal attachment to the content of the

story, interpretation and understanding of the subtext, positioning on the behavior and attitude of the characters, ability to put themselves in the shoes of the characters and flexibility of the thought.

2. Design

For the analysis of the cognitive aspects, the modes of reconstitution Fanciful, Concrete and Interpretative, described by Souza (1990), presented in Table 1, were used as reference.

Table 1. Reconstitution modes of Souza (1990) regarding cognitive development.

Reconstitution Mode	DESCRIPTION OF THE CLASSIFICATION
Fanciful	Predominance in the representations of introduction of external elements and even of personal elements to the story, which has no relation with the same, there being also juxtaposition of ideas and syncretism of thought.
Concrete	Tendency to reconstitute the text in a way that's narrative, descriptive and attached to it, not interpreting the same.
Interpretative	Occurrence of interpretation of the text, giving it new meanings, beyond the concrete information, establishing relationship between the causes of the actions of the characters and the consequences.

In addition to the cognitive aspects, this research also aims to study the moral development of the participating children. For this, analysis and classification by levels were performed, according to what was proposed by Piaget (1994/1932), as described in Table 2.

Table 2. Classification of the moral dimensions of development (Piaget, 1994).

DIMENSÃO	DESCRIÇÃO DA CLASSIFICAÇÃO
I – Anomie	Absence of the notion of rule, that is, morality lies outside the universe of values of the child.
I/II – Anomie/ Heteronomy	Oscillation between little or no notion of rules and, at the same time, positioning attached to the rule, demonstrating understanding that's more literal and considering rules as imperatives.
II – Heteronomy	Unilateral vision in the understanding of situations, with a literal understanding of the rules, these being the result of imperatives placed by adults (authorities) and subsistent in themselves, and a more self-centered position when judging actions.
II/III – Heteronomy/ Autonomy	There is an oscillation between the understanding of the rule (right and wrong) to the letter and an idea of objective responsibility, that is, not considering intentionality, and the notion of cooperation, that is, a decrease of objective responsibility, characteristic present in autonomy.
III – Autonomy	Presence of positions that reflect cooperation and mutual respect in the judgment of actions, development of the capacity to put oneself in the place of the other, and to perceive the intentionality of actions, demonstrating a gradual elevation of decentering capacity.

3. Objectives

This research had as objective to study aspects of the cognitive and moral development of children through the fairy tale "Hansel and Gretel" presented in a multimedia context.

4. Methods

The research was carried out with 24 children with ages of 6-7, and 10-11 years old, students of a private school of Grande Vitoria in Espírito Santo. The children were interviewed individually after the presentation, also individually, of a multimedia version (lasting 12 minutes) of the classic fairy tale "Hansel and Gretel" on a tablet. After watching the fairy tale, participants answered eight questions from a clinical interview tailored to the content of the fairy tale. The interview began by asking about the understanding of the story, asking the child to reconstitute the same and investigating the judgment of the participants in relation to the action of each character in the story.

5. Discussion

Data analysis demonstrate that the Concrete mode of reconstitution (Souza, 1990) prevails in all the studied age groups, including the eleven years old children, although in some of their answers they have shown some indication of interpretation. Regarding the moral aspect of the development, the majority of the answers of the participants of all the studied age groups is within dimension II - Heteronomy, the second largest part of the answers was classified in the transition II / III - Heteronomy / autonomy.

In the general classification result of the six and seven-year-olds surveyed, the dimension II - Heteronomy is the most frequent, so when categorizing each response and its respective justification it was verified that the children of this age group can grasp the dimension of duty, good and evil, indicating that their universe of values begins to include morality, yet they still adopt a more egocentric position in judging some actions.

In the responses of the ten and eleven-year-old children, it can be seen the beginning of a capacity to put oneself in the shoes of the characters, to perceive intentionality in the actions of the same, being remarkable in some speeches the passage to less unilateral positions, indicating doubts about the action being right or wrong, and a divided positioning between right and wrong, which may suggest a certain flexibility of thought.

In making an intersection between the results of cognitive and moral development, by analyzing their responses to the actions of the characters in the story, it was observed that most of the children are classified within the mode of Concrete reconstitution at the same time adopting a predominantly heteronomous positioning.

6. Conclusions

There was similarity between the results of Souza (1990) and those of this research, since in both investigations the majority of the children is classified within the mode of Concrete reconstitution. Thus, the evolution of verbal language phenomena along the ages observed by Piaget (s.d. 1947, 1986/1966) and studied by Souza (1990) could be verified in the current research.

This research can bring contributions to the area of human development by reinforcing the assumptions of Piagetian theory, that as it happens for the cognitive aspect, there is an evolution over the ages also in relation to moral development. Younger children present answers that were classified within the Anomie / heteronomy dimension and older children revealed answers that were closer to the Heteronomy / autonomy category. When assessing the moral dimensions of children through their judgment in relation to the action of the characters of the story, it is noted that in their moral development, children tend to step from a more heteronomous condition to a quality of judgment that is more autonomous.

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EFFECTIVENESS OF THE PROGRAM UNPLUGGED ON DESCRIPTIVE NORMATIVE BELIEFS AMONG SLOVAK SCHOOLCHILDREN

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Abstract

Objective: One of the objectives of many preventive programs is the correction of normative beliefs because they are predictors of substance use. The main aim of our study is to examine the short term and long term effectiveness of the school-based drug use prevention program Unplugged as well as the moderation effect of gender. The exploration is focused on descriptive normative beliefs regarding the number of friends who use alcohol and who get drunk at least once a week.
Method: In the school year 2013/2014, the program Unplugged was implemented in Slovak primary schools. The study was a cluster randomized controlled trial with data collection conducted immediately before the program implementation (T1), right after the program implementation (T2) as well as 12 months later (T3). The program involved 1295 participating schoolchildren (M=11.52; 46.8% boys). The schools were randomly assigned to experimental (N=641) and control groups (N=654). The experimental group was exposed to drug prevention program consisting of 12 lessons. Binary logistic regression was applied with regard to gender and normative beliefs prior the program implementation.
Results: There was no significant short-term program effect and no moderation effect of gender in T2. However, a significant moderation effect of gender was found in T3. Girls in the experimental group had a lower level of descriptive normative beliefs regarding the number of friends who use alcohol compared to boys (OR 0.347; 95% CI 0.154-0.780). In comparison to boys, they also had a lower level of descriptive normative beliefs of friends who get drunk at least once a week (OR 0.428; 95% CI 0.214-0.859).

Keywords: Schoolchildren, drug prevention program, normative beliefs.

1. Introduction

Adolescence is a key period for using addictive substances that can continue into adulthood. Schools provide a natural environment for prevention and therefore most preventive activities are implemented in school facilities. The current prevention programs include, among other things, materials aimed at the correcting the perception of drug use among peers and adults. This approach is based on research conducted by Fishbein (1977). This study shows that adolescents usually overestimate the prevalence of smoking, drinking and other drug use (Botvin, Griffin, 2007). Consequently, normative beliefs are considered to be one of the strongest predictors of substance abuse and there is a significant association between normative beliefs and risky behavior which has been confirmed in many studies (Dempsey et al., 2016; Morgan, Grube, 1989; Padon et al., 2016; Perkins, 2002). Descriptive normative beliefs are characterized as the perception of what many people do (Cialdini, Kallgren, Reno, 1990). The change of these normative beliefs can be achieved by educating young people on the actual prevalence of substance use among peers (Botvin, Griffin, 2007).

2. Objective

The main aim of our research was to examine the short-term and long-term effect of the school-based drug use prevention program Unplugged on descriptive normative beliefs as well as the moderation effect of gender in these relationships among schoolchildren in Slovakia. The exploration was focused on descriptive normative beliefs (DNB) regarding the number of friends who use alcohol and who get drunk at least once a week.

3. Design

The Unplugged program is part of the project EU-DAP "*The European Drug Addiction Prevention Trial*". The universal drug prevention program Unplugged is designed for schoolchildren aged 12 to 14 in particular. The Unplugged program is based on the Comprehensive social influence model of which the purpose is to build specific skills to manage social impact and deconstruct normative beliefs (Kreeft et al., 2009). The next principle is a Knowledge-attitude-behavior model that is intended to gain information about drugs and their consequences. A combination of these two principles has an impact on the use of addictive substances (alcohol, tobacco and illicit drugs). The goal of the program is to reduce the number of adolescents who start using addictive substances, to delay first contact with drugs as well as delaying the transition from experimentation to regular use (Širůčková et al., 2012). Its essence lies in a combination of prevention methods that focus on the development of personal and social skills as well as perception of social norms. Another important objective of the program is to develop the interpersonal and intrapersonal skills and the correction of normative beliefs. The main emphasis is on normative beliefs about the use and acceptance of addictive substances (Miovský et al., 2012). The curriculum consists of 12 lectures in the framework of the teaching process. During the school year 2013/2014 (September/December), the Unplugged program was implemented once a week. The program was taught by teachers, psychologists, or special educators who underwent a three-day training course. The verification of the Unplugged program effectiveness in Slovakia had an experimental design. The data were obtained prior to the program implementation (T1), right after its implementation (T2) as well as 12months (T3) later.

4. Research sample

The program involved 1295 participating schoolchildren (M=11.52; 46.8% boys) from sixty Slovak primary schools. School were randomly assigned into experimental (N=641) or a control groups (N=654).

5. Methods

Descriptive normative beliefs regarding the number of friends who use alcohol and who get drunk at least one a week were measured by single items from the questionnaire of the international study ESPAD (Hibell et al., 2011). The wording of the selected items was as follows: *How many of your friends would you estimate drink alcoholic beverages? How many of your friends would you estimate get drunk at least once a week?* The items were rated on a 5-point scale (1= nobody, 5=everybody). The variables were dichotomized by the visual binning method for using binary logistic regression.

Participation in the program Unplugged was monitored through two categories: an experimental group (with intervention) and a control group (without intervention).

Binary logistic regression was used to analyze the data with respect to descriptive normative beliefs before program implementation (T1). The moderation effect of gender was also explored.

6. Results

The binary logistic regression revealed that there was no significant main effect of either the program Unplugged or gender in T2 and T3 for descriptive normative beliefs regarding the number of friends who use alcohol and who get drunk at least once a weak. The moderation effect of gender in T2 was not confirmed. However, a significant moderation effect of gender was found in T3. The girls in the experimental group had a lower level of descriptive normative beliefs regarding the number of friends who use alcohol in comparison with the boys (OR 0.347; 95% CI 0.154-0.780). The whole regression model explained 10.1% of the variance and correctly classified 85.2% of the cases.

Similar results also showed that girls in the experimental group had a lower level of descriptive normative beliefs of friends who get drunk at least once a week (OR 0.428; 95% CI 0.214-0.859) in comparison with the boys. The regression model explained 11.3% of the variance and correctly classified 77.0% of cases.

7. Discussion and conclusion

Although one of the aims of the Unplugged program is the correction of normative beliefs (Miovský et al., 2012), the relationship between program participation and descriptive normative beliefs in our study was not explored. The results show that the short-term and long-term effectiveness of the program Unplugged was not confirmed and also that the main effect of gender was not significant.

Although the Unplugged program is a European prevention program, adjusting the strategy of correction of normative beliefs to the conditions in Slovak primary schools would be beneficial. Many studies point to the importance of preventive programs implementation in the context of school conditions (Rohrbach et al., 2007). Another reason might be in the limitations of the used measure for normative beliefs in this age group (11.52 years old schoolchildren).

However, the results show a significant interaction effect between gender and participation in the program Unplugged. Girls in the experimental group had lower descriptive normative beliefs regarding the number of friends who use alcohol and who get drunk at least once a weak in comparison to boys. It means that the Unplugged program influences the descriptive normative beliefs of girls more than boys. Our conclusion is consistent with previous research (Gabrhelik, Duncan, Lee, 2012; Vigna Taglianti, Vadrucci, Faggiano, et al., 2009) confirming the gender differences in the effectiveness of the program Unplugged.

Acknowledgements

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ATTENTION, INTEREST AND SELF-WORTH: RELATIONSHIP BETWEEN AFFECTIVITY AND INTELLIGENCE IN CHILDREN WITH ADHD

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Abstract

Attention Deficit Hyperactivity Disorder (ADHD) has as main characteristics inattention, impulsivity and hyperactivity. Such symptoms lead to cognitive, social and emotional difficulties and, consequently, academic losses and damage in the daily relations of individuals with the disorder. The aim of this study was to evaluate the behavior of attention, interest and self-valuation and their relationships among affectivity and intelligence in children with ADHD through rules game workshops. Four girls and four boys aged between eight and 11 years participated in the study. Data collection was done through workshops with the games Domino, Memory Game, Puzzle, Mico Game, Who am I, and Lynx, which took place weekly from May to November 2015, in a University in the city of Vila Velha, Espirito Santo, Brazil. The analysis of the behaviors presented by the children during the workshops indicates positive signs of cognitive and affective development that were not expected due to the difficulties resulting from ADHD. It is important to point out that there was probably a kind of compensation for the individual's interest and self-valuation to overcome the problems arising from the difficulty of attention presented by them. Therefore, a joint study of cognitive and affective aspects can contribute to the improvement of diagnosis and intervention processes and to the promotion of strategies that increase the life chances of people with ADHD.

Keywords: ADHD, rule games, attention, interest, self-worth.

1. Introduction

Attention Deficit Hyperactivity Disorder (ADHD) is a perceptual, emotional and behavioral motor disorder (Lopes, Nascimento, Sartori & Argimon, 2010). The three main symptoms (attention deficit, impulsivity and hyperactivity) are responsible for difficulties in the social adaptation of the individual due to difference between age and development presented (Condemarín, Gorostegui & Milici, 2006). The psychological phenomena of attention are important, since they make it possible to select the stimuli that are most interesting to us and, therefore, to direct mental resources to those (Sternberg, 2015).

Interest is a regulation of energies that presents itself in the relation between need, which can be considered imbalance, and the object, which makes the satisfaction of necessity possible (equilibrium) (Piaget, 2005). Self-valuation starts from lived experiences, in which the individual will extract practical knowledge and self-confidence or self-doubt, related to feelings of inferiority and superiority. The individual's own valuing influences the determination of interests and the energy engaged to reach them (Piaget, 2005).

2. Design

In relation to the conduct of attention, Level I was established and characterized by inattention throughout the game. At Level II A the subject is easily distracted by environmental stimuli or thoughts even after instructor's intervention. At Level II B, one can often keep attention during gameplay, getting distracted by stimuli, but being able to focus after intervention. At Level III, it is observed that the subject keeps attention throughout the game, not being easily distracted by stimuli or thoughts. One can identify the main stimuli to achieve the goal of the game and keep attention on them.

Concerning the conduct of interest, at the alpha level, the subject shows interest in the game, but isn't affected by winning or losing. At the beta level, one shows interest in choosing a particular game or assiduously attending workshops. Playing the game is a hobby that requires no involvement. At the gamma level, one is interested in identifying the possible strategies, the variations of plays and the levels of difficulties, fully embracing the demands of the game.

Regarding self-motivation, the appointed levels were alpha, in which participants do not consider themselves capable of learning the game at all, much less winning a match. Beta, when participants consider that, facing a simple game, with novice opponents, they will be able to learn. Gama, when participants perceive themselves as people who, even with great effort, will be able to learn the game, either for having other examples in life in which they have overcome difficulties, or to perceive themselves as determined people.

3. Objectives

This research had the objective of evaluating the behavior of attention, interest and self-valuation and their relationships through the performance of children diagnosed with ADHD in rules game workshops.

4. Methods

Eight children diagnosed with ADHD aged nine to 11, four girls and four boys, participated in the study. Data collection was performed through workshops with rules games that occurred weekly from May to November 2015. The workshops lasted approximately 50 minutes and were filmed for further analysis of the data. Conducts of attention, interest and self-valuation were analyzed in six previously defined workshops. The workshops were carried out using the games: Domino, Memory Game, Puzzle, Mico Game, Who am I? and Lynx.

5. Discussion

Based on the data analysis of the conducts of attention, interest and self-valuation, it can be observed that there was no linear evolution of the participant's attention, since even after presenting the level III in a workshop, some of them presented levels IIA and IIB in later workshops. This data corroborates Piaget's (1996) theory when it addresses the issue of the dialectical circle that states that all progress causes retroactive rearrangements that are important to enrich the system in question.

One can observe the connection between the levels of attention and interest, because in the workshop mentioned there was a decrease in the levels of the two conducts that may have been caused by the difficulties encountered. However, a greater level of interest and attention could be noted on games in which there were less difficulties faced by the participants.

It was observed that during most of the workshops the participants presented the Gamma behavior in relation to the Self-valuation. Of the three conduits, Alpha, Beta and Gamma, the latter can be considered the most "evolved" in the development process. Therefore, it is noticed that the children presented most of the time a positive valuation of themselves.

Through the analysis of the conducts presented by the children during the workshops, it was possible to notice that most of the participants presented positive evidence of cognitive and affective development (Gama conduct and level IIB and III) that were not expected due to the difficulties resulting from ADHD.

When comparing the results of the evaluation of the three conducts (Self-valuation, Interest and Attention) it is possible to observe that the establishment of a complementary relationship between affectivity and cognition allows the individual to gradually overcome some limitations towards the necessary equilibriums and imbalances in the development process.

6. Conclusions

The data presented corroborate Piaget's (2005) writings on affectivity, allowing the observation of a complementary relationship between cognitive and affective aspects for the performance of children with ADHD. It is important to point out that there was a kind of "compensation" of the individual's self-interest and self-valuation to overcome the problems arising from the difficulty of attention presented by them.

In many situations the diagnosis of ADHD reduces the expectations of parents, teachers and even professionals regarding the possibilities of the individual with the disorder. According to the results presented by Ribeiro (2014), the parents of children with ADHD usually emphasize the negative aspects of the temperament and the coexistence of their children, disregarding their qualities in comparison with their limitations. Therefore, the joint study of cognitive and affective aspects can contribute to the increase of diagnostic and intervention processes and, thus, to the promotion of strategies that increase the life chances of these people in face of the challenges encountered.

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AGE EFFECTS IN STUDENTS' SELF-REGULATION OF LEARNING ACTIVITY

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Abstract

Empirical study had its purpose to examine the differences in the learning activities self-regulation development at various schooling stages. The sample consisted of 1250 Russian school students aged 11-18 years. Morosanova's «Self-Regulation Profile of Learning Activity Questionnaire - SRPLAQ» was used to assess the students' regulatory characteristics. Variance analysis revealed significant differences in all self-regulation parameters among the younger, middle-age and older adolescents. Younger teens were significantly higher in all the self-regulation indicators. The study revealed non-linear changes in the learning activities self-regulation during the middle and senior schooling periods: the highest level of self-regulation of educational activity is observed at the age of 11-12 years, which is followed by a gradual decline at the age of 13-15 years, and then increase at the 16-18-year age. Such dynamics can be explained as both pubertal physiological changes and age-related changes of leading goals of activity: from the younger teenagers' primary focus on the learning objectives towards turning regulation in older age groups to solve social interaction problems, and then - the tasks of professional self-determination.

Keywords: Self- regulation, different stages of schooling, age effects.

1. Introduction

The research on specifics of the development of conscious self-regulation (SR) of educational activity in different periods of schooling is a topical theoretical and practical task. The scientific relevance of this problem is related to the need of creating more comprehensive scientific vision of dynamics of the conscious self-regulation development in the educational environment. Its practical relevance is determined by demand for developing a capability of conscious self-regulation of educational activity as a meta-resource in achieving educational goals.

Analysis of theoretical and empirical research on the subject matter suggests that certain components of self-regulation are observed already at an early age, while the ability for more complex conscious self-regulation of activity develops only in adolescence. It is obviously related to the fact that educational activity requires from schoolchildren a quite developed ability for self-regulation and its defects lead to a decrease in academic success. In the process of schooling the students' general SR level and its profiles are changing, and the importance of such changes in the transition age is stressed in many studies. Researchers note that middle-school students are more likely to demonstrate non-adaptive behavior and less often use of effective self-regulation strategies in comparison with younger schoolchildren (Cleary & Chen, 2009; Fredericks & Eccles, 2002).

A theoretical basis of our research is the concept of conscious SR as a multilevel and dynamic system of processes, states and features (Morosanova, 2013) serving for initiating and maintaining activity aimed at consciously setting and achieving a subject's goals. The higher the level of organization of the individuality, the greater the capability of the subject to understand these processes and influence their formation and implementation (Morosanova, 2010). In addition, we believe that conscious SR is a meta-process, the functional means of the subject, allowing to mobilize his personal and cognitive capabilities, acting as the psychic resources, in promoting and achieving his diverse life goals (Flavell, 1979, Brown, 1987; Bandura, 1997; Morosanova et al., 2016; Zimmerman, & Schunk, 2009; Winne, 2010).

2. Objectives

The study had its purpose to reveal the general trends in the development of conscious self-regulation during the middle and senior periods of the secondary school; describe the obtained results considering the students' age characteristics and the specifics of learning activities at different stages of school education. We presupposed a certain nonlinearity in the changes of the learning activity self-regulation and its stylistic features. This nonlinearity pertains to the age-related changes of both the general level of self-regulation and its individual characteristics.

3. Methods

The general level of self-regulation development, stylistic features of SR processes, and regulatory-intrapersonal characteristics were assessed by the "Self-Regulation Profile of Learning Activity Questionnaire" (SRPLAQ; Morosanova, Bondarenko, 2015) including the sub-scales of Planning, Modeling, Programming, Results Evaluation, Flexibility, Independence, Responsibility, Reliability, Social desirability and the integrative scale – SR General Level.

The sample consisted of the Russian secondary school students (N= 1250) educated in the 6-11th grades aged 11-18 years.

4. Discussion

At the first stage of statistical data processing the varience analysis (ANOVA) were used to identify significant differences in all the regulatory indicators. Figure 1 shows a graph of the mean values of the SR General Level for each grade students.

Figure 1.

Mean values of SR General Level indicator by grades
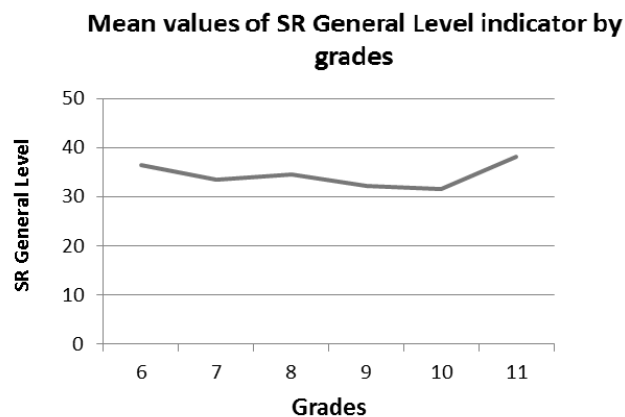
Analysis of the graph allows to note the changes in the general level of conscious self-regulation of educational activities in students of different grades. Significant differences are observed between the students of grades 6 and 9; 6 and 10; 7 and 11; 8 and 10; 9 and 11; 10 and 11. We also found significant differences when considering certain regulatory characteristics (planning, modeling, programming, etc.).

On analyzing dynamics of the students' SR general level, we have distinguished the following tendencies: from 6th to 10th grade one can observe a gradual decrease in the level of conscious self-regulation of learning activity, and then its increase in the final-grade students, so that students of 6th and 11th grades do not significantly differ in their level of conscious self-regulation of educational activities. For a proper consideration of this fact it is necessary to take into account the change in the social situation of development as well as the conditions and specifics of the educational activity in different age periods.

A higher level of self-regulation in younger adolescents can be explained by several reasons. At this age the students are still under control of adults, which in many ways help to regulate learning activity (controlling the home task performance, monitoring educational achievement). In the next period this parental influence decreases due to the adolescents' growing need for autonomy (Cleary & Chen, 2009, Gillet, et al., 2012). It is a generally accepted fact that there is a loss of interest and a decrease of the educational motivation in the senior school students, as in this period they are faced new goals and

tasks related to social interaction and professional self-determination. In addition, our analysis of the stylistic features of the learning activity self-regulation shows that younger adolescents have significantly higher indicators of such regulatory-intrapersonal characteristics as responsibility and reliability, which also reflects a more positive attitude toward learning. In final-grade students these properties are less pronounced in relation to learning activity, and effective self-regulation is provided mainly by means of well-developed regulatory processes of modeling and programming, and their high indicators apparently emphasize their essential role in preparing for the final examinations.

5. Conclusions

According to the obtained empirical data, the development of conscious self-regulation during the school education has a non-linear character: from grades 6 to 10 there is a gradual decline, and then - an increase in the level of conscious self-regulation of learning activity in the 11th grade.

The non-linear change of SR general level is associated with both general decrease of internal academic motivation of students, and a change of the nature and types of educational tasks. Challenging tasks and changing priorities lead to the actualization of differing regulatory resources. Graduate students are characterized by a higher level of conscious self-regulation development, which is associated with the increased importance of educational activities and greater deployment of resources to meet the challenges of successfully completing the secondary school course and passing the final examinations.

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EVALUATING THE PROCESS OF AWARENESS IN CHILDREN WITH ADHD THROUGH PROBLEM-SITUATIONS

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Abstract

Human development is a continuous and complex process that involves reorganization at the level of action, perception, activity and interaction of individuals and their world. However, we have faced atypical development processes such as Attention Deficit *Hyperactivity* Disorder (*ADHD*), one of the most frequently diagnosed neurodevelopmental disorders in the child population and one of the major controversies related to diagnosis and treatment. Based on this question, the present study aims at analyzing the awareness process of children with ADHD by using problem-situations. Eight children diagnosed with ADHD, aged between 9 and 11, linked to the polyclinic of a university of the Greater Victoria Area, ES, Brazil, participated in the study. The instruments used for data gathering were protocols of problem-situations based on the rule games Four Colors, Domino, Guess Who and Link-4. The data show that children present difficulties in the process of awareness during the game. From the results found it can be seen a need of intervention among children diagnosed with ADHD so that they can identify and learn how to use cognitive strategies such as planning, performance and understanding of actions. In fact, the problem-situations, most of the times, are still based on a practical solution, not on conceptual understanding of the task. More studies can be useful for understanding and intervention on awareness among children with ADHD, which can map the patterns of awareness in this specific population and continue the reflections about how the child constructs and controls reasoning and procedures in their consciousness.

Keywords: ADHD, childhood, awareness, games, problem-situations.

1. Introduction

For Piaget and Inhelder (2009) there is no pre-established plan for the development of the child, but a progressive construction in which each innovation is only possible thanks to the preceding one. The development process allows people to build knowledge about themselves and the world around them. However, we have come across atypical developmental processes, such as Attention Deficit Hyperactivity Disorder (ADHD). The causes of this disorder are not yet sufficiently known and the same cannot be explained by only one cause (Angrino, Panesso & Valencia, 2006).

The individuals with ADHD have difficulty inserting themselves and being inserted in the world, because their motor agitation, impulsivity and attention deficit cause them to feel lost amid the great amount of auditory, visual and sensorial stimuli. The impacts of this difficulty may also likely be present in intellectual activities and in learning, as well as in the grasp of consciousness, even though there is no impairment of intelligence (Campos et al., 2007).

Based on this problem, the objective of the present study was to analyze the process of grasp of consciousness in children with ADHD by the use of problem situations. From the work of Piaget and his collaborators, we take the concept of grasp of consciousness as the translation of the structures and coordination used to produce our actions and thoughts to the conscious plane, that is, to understand in this plane what is structured and performed in the unconscious plane. Thus, the concept of grasp of consciousness proposed in Piagetian theory is important for understanding how this construction process occurs in children with ADHD.

2. Design

Research protocols were used for each game for the collection of data. The protocols were applied at the end of the workshop in which participants answered questions. As questions in the protocols of the games Four Colors, Domino, Lig 4 and some of the Guess Who?® game had an expected response pattern, the results presented by the children were classified by identifying the correct and incorrect answers. Correct answers were those that were in agreement with the response pattern or that were close to it (incomplete response), but that did not present mistakes. All answers that had mistakes were considered incorrect.

The answers presented by the participants in the protocol of the game Guess who?® were analyzed in different ways: the first two questions were analyzed using the Correct and Incorrect Strategies criteria, as proposed by Rossetti et al. (2014). Correct Strategies were considered those that, regardless of the answer (yes or no), could eliminate several possibilities while the Incorrect Strategies are the questions whose answer (yes or no) will not always allow the player to eliminate a large number of possible results. Therefore, the strategies were considered correct when they held elements that would allow success in the game and incorrect when they were vague, random and not connected to a good result in the game. The last three questions were analyzed using the criterion of Correct and Incorrect Response, same procedure used to analyze the questions of the Four Colors, Domino and Link-4® games.

3. Objectives

This study aimed to analyze the process of grasp of consciousness in children with ADHD through the use of problem situations.

4. Methods

Eight children with ADHD aged nine to 11, four girls and four boys, participated in the study. The children were linked to a polyclinic from a university in Greater Vitória / ES and were selected to participate in a series of rule games workshops. The workshops took place from April to November 2015, lasting approximately 50 minutes. The instruments used for data collection were protocols of problem situations based on the games: Four Colors, Domino, Guess Who?® and Link-4®. For each game, a specific protocol was developed enclosing questions about the different situations that could be encountered during a game, with the purpose of understanding the strategies and procedures used by the children during the games to analyze the process of grasp of consciousness.

5. Discussion

When adding the total of errors and correct answers of all the participants in each game it was observed that in the games Link-4® and Guess Who?® the number of incorrect answers was superior to the correct answers, whereas in the Four Colors and the Domino the opposite happened (the number of correct answers was greater than the incorrect ones). When analyzing these results it is necessary assess the characteristics of the games, since the first two games pose greater level of difficulty, requiring the development of more complex strategies and planning than the last two.

The greater amount of incorrect answers presented by the children raises the important reflection that it is probable that the situations-problems presented did not cause the perturbation expected by the researchers. On rare occasions the participant was able to perceive and correct the mistake. The inability to understand the contradictions in the answers demonstrates a difficulty in understanding the relations of implication between actions while the perception of contradiction (even without solving it) presents reasoning organized in deductive systems (Campos et al., 2007).

Perturbations are essential to cause the imbalances described by Piaget (1976) as fundamental to the equilibration process. This dynamic will enable the advancement in the development of the individual. Moraes (2010) cites reports of children and adults with ADHD alongside executive disorders of non-verbal working memory, causing difficulty in organization and management, precarious control of time to perform tasks and poor perception of mistakes.

The analysis of the classic triad of ADHD symptoms (impulsivity, attention deficit and hyperactivity) helps in understanding the difficulty of children with this disorder to act correctly in the game and to be aware of how these actions have been performed. For Campos et al. (2007) there is a possibility that brain functioning of individuals with the disorder causes difficulties in the interpretation

of problems, which will be repeated in learning and social adaptation, even if there is no impairment of their intelligence.

Based on the results, we verified that the participants did not have satisfactory results in Guess Who?[®] because they were not able to reach the degree of conceptualization of the actions to understand the schemes needed to be successful in the game. According to Fiorot, Ortega, Pessotti & Alves (2008) observing, planning, time and space organizing and coordinating aspects of the game are the necessary competences to play well. Thus, the characteristic symptoms of ADHD (impulsivity, hyperactivity and attention deficit) interfere in a way that impairs the development of some of the mentioned competences, which makes the task of playing much more complex for the children with the disorder.

6. Conclusions

It can be observed that the children with ADHD who participated in this study still have a long way to go in regard to the process of grasp of consciousness, since most of the actions presented are still at the level of doing and not of understanding. It is necessary to reflect on how much the characteristics of the disorder (impulsivity, attention deficit and hyperactivity) influence on hindering this process.

The need to improve the process called by Piaget of "knowing how", that is, to perform well the actions required to achieve the goal of the game, was noticed in the participants. This knowing-how is essential for the individual to be able to evaluate and understand their actions starting the process of grasp of consciousness.

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HOW TO BECOME A MAESTRO:
A STUDY ON THE QUANTITY AND QUALITY OF PRACTICE

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Abstract

In a study with 118 conservatoire students, we readdressed several conclusions from research on professional musical practice behavior. Quality of daily self-directed practice was reflected in two Principal Components comparable with the Formal Practice framework (Bonneville-Roussy & Bouffard, 2015): the use of learning-goals and the ability to maintain focus. Quantity of practice was indicated by daily practice time. Neither quality factors, nor quantity of practice was a significant predictor of end-of-term performance-exam. This study questions the validity of exam grades as core measure of musical skill: these were mainly related to study-year and years of performing experience, but not to practicing.

Keywords: Assessment, motor skills, music education, learning strategies, deliberate practice, self-regulation.

1. Introduction

Making music is one of the most complex procedural skills humans can acquire, and this calls for sophisticated pedagogy. The concept of formal practice (Bonneville-Roussy & Bouffard, 2015) combines two leading education psychological approaches; Deliberate practice and Self-Regulation. Deliberate practice has the central purpose of acquiring knowledge or skill (Ericsson, Lehmann, & Tesch-Römer, 1993; Hambrick, Oswald, Altmann, Mainz, Gobet, & Compitelli, 2014). Self-regulation is aimed at actively arranging one's own thoughts, feelings, and actions to reach goals (McPherson, Nielsen, & Renwick, 2013; Schunk & Zimmerman, 1998). Combining these into one framework led Bonneville-Roussy and Bouffard (2015) to a model that allowed to explain more variance in training results than with the two components separately. The two elementary aspects of this new formal practice framework were the ability to maintain focus on the activity, and the use of learning-goals to lead towards the chosen activities. In part 1 of this article, we discuss the formation of a concise scale for practice quality, in line with the formal practice framework. In part 2, we describe an attempt to relate this measure of practice quality, together with practice quantity, to musical achievement.

2. Method

A survey was spread among students from different study years and instruments, within one conservatoire. Respondents were only included in the analyses if they met the following criteria: following a fulltime course in the classical, jazz, or early music department, and sufficient mastery of English. The resulting sample included 118 students (68 M / 47 F / 3 unknown; age 18-33y, M = 23y), following bachelor (n= 94) or master (n = 38) courses in the jazz (n = 29), classical (n = 76) and early music (n = 13) departments. Nine students were in a preparatory year.

2.1. Part I: principle component analysis (PCA) on practice quality

The aim of this study was to create a more concise and applicable scale to obtain insight in practice behavior, based upon other questionnaires and formulations on self-regulation, deliberate practice, and formal practice (Araújo, 2016; Bonneville-Roussy & Bouffard, 2015; Ericsson et al., 1993; Miksza, 2007). Ten questions were initially considered in this new scale: (1) *When something is difficult, I try to find/make exercises to learn it*; (2) *My practice is mainly just playing through the music from beginning to end*; (3) *Before I start playing, I think about one specific thing that I want to focus on*;

(4) *I plan my practice in advance*; (5) *When I've set a goal to improve one thing, I stick to evaluating and improving that thing*; (6) *During practice, I structurally take moments to think about what I want to improve*; (7) *During practice, I often think about something else while I'm playing*; (8) *During practice I'm often distracted by things like my phone*; (9) *I can put myself to practice things that I don't like*; (10) *When I practice, my thoughts are fully engaged*. Questions were framed on a five-point scale, ranging from *Never* (1) to *Very Often* (5). Results on the negatively framed items 2, 7, and 8 were inverted when necessary.

Internal consistency checks and a PCA on the ten items were executed to derive the list's underlying constructs (Cronbach's α =.62). Two components (items 1-6; items 7-10) accounted for 42.6 percent of the variance. Deleting item 9 and forcing the model into two dimensions raised the fit to 45.5 percent (KMO= .688 and Bartlett's test: $p < .001$; oblimin rotation). The first component (VAF = 26,9%) consisted of the items 1-6 (α= .66), and the second component (VAF = 18.6%) was based on the variables 7, 8, and 10 (α= .64). These components were named 'goal-driven practice' and 'focus' respectively, which is in accordance with the main components of formal practice, described by Bonneville-Roussy and Bouffard (2015).

For details on the development of the PCA-model, please see the original report: https://openaccess.leidenuniv.nl/handle/1887/48950/

2.2. Part II: relating practice time, formal practice, and musical achievement

We predicted that (a) Practice time is not positively associated with musical achievement (cf. Burwell & Shipton, 2011), (b) unless this time is associated with practice quality, and thus (c) formal practice and practice time should interact (cf. Bonneville-Roussy, & Bouffard, 2015). As a measure of **musical achievement** we used the student's end-of-term exam grade on a ten-point scale where 6-10 represent levels from sufficient to excellent. Grades are determined by consensus in a committee of at least three experts. This graded exam performance is perceived by students as a central goal of practice during the study year, especially during the period in which students filled in this survey. 95 students gave permission to use this grade and played an exam performance. Alongside the qualitative practice factors described in the above, self-report **practice time** was tested as a predictor of musical achievement. Previous studies have shown that students are able to report practice time fairly accurately (e.g. Jørgensen, 2002). Daily practice time was computed as the mean of reported practice in the past three days. To test the hypotheses, the fit statistics were compared between Multilogistic Regression Analysis (MLRA) models with study year as predictor for correction.

3. Results

3.1. Practice time

As predicted, practice time did not correlate significantly with exam grade (ρ = -.053). Adding practice time did not improve the MLRA model fit, $\chi^2(2) = 1.892$, $p = .388$.

3.2. Formal practice

Practice quality variables 'goal-driven practice' and 'focus' were entered as predictors of achievement in a MLRA model. The addition of neither 'goal- driven practice', $\chi^2(2) = 2.594$, $p = .273$, nor 'focus', $\chi^2(2) = .157$, $p = .924$, significantly improved the prediction of exam grades.

3.3. Time x formal practice

To evaluate a possible interaction between practice time and formal practice characteristics, MLRA models adding practice time; practice time in interaction with 'goal-driven practice'; and practice time in interaction with 'focus' were compared as predictors of achievement. Neither of the interactions improved the fit, Practice Time * 'Goal-driven practice': $\chi^2(2) = 1.792$, $p = .408$; Practice time * 'Focus': $\chi^2(2) = .681$, $p = .711$.

For a more thorough discussion on the MLRA testing, please see the original report: https://openaccess.leidenuniv.nl/handle/1887/48950/.

4. Conclusion

As expected, students' daily practice time was not related to achievement. Surprisingly, the newly formed formal practice variables 'goal-driven practice' and 'focus' were also not significant as predictors of exam grade in an MLRA model, nor were the interactions of these factors with practice time. The lack of significance concerning the variables 'goal-driven practice' and 'focus' in relation to

achievement, contrasts with the findings of Bonneville-Roussy and Bouffard (2015). Despite a sample size of 95 students, these null results may be partially due to power limitations, which in turn can be caused by the heterogeneity of the student population.

A second possibility is that the newly computed summarizing characteristics of formal practice are not an accurate measure of practice quality. These constructs were formed and interpreted on the basis of their face validity, construct validity and internal consistency, and consisted of fewer items than the original model. Nonetheless, the statistics of the PCA support the composition of the two factors and the composing items match the formal practice dimensions.

Finally, we should seriously consider the possibility that exam grades are not a valid and sensitive measure of musical improvement. Such exam grades have also been used in other studies, but with different grading systems (Bonneville-Roussy & Bouffard, 2015; Burwell & Shipton, 2011; Jørgensen, 2002). Concerns about the use of grades in this study are fed by our observations of small dispersion of grades, and the influence of musical department, study year and performing experience on the height of the grades. Normally, a small proportion of students would perform insufficiently. With a range of only 'sufficient' grades, the spreading of achievement was perhaps not large enough to demonstrate differences. Also, students' exam grades appeared to be most associated with study year and performance experience. Students in higher years were more likely to receive a higher grade. In a normal grading system, average exam grades should remain constant across different years. Especially the number of years of performing experience was significantly correlated with performance on the exam, rather than the number of years that a student practices the instrument. This may mean that such an exam grade could be more a measure of being able to perform well under the pressure of a concert setting - for example how to cope with nervousness (e.g. Oudejans, Spitse, Kralt, & Bakker, 2017) - instead of an indication of the improvement of musical skill. For a conservatory, this is not necessarily a problem, because the actual concert performance could be argued as the major goal of a course at a conservatoire. Scientists and conservatoires should however be more cautious with interpreting such exam grades as measures of advancement in musical and technical skill.

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THE EFFECTS OF PSYCHOLOGICAL GAMES ON COMMUNICATION SKILLS OF THE YOUTH IN JAPAN

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Abstract

This study examined the effects of psychological games on communication skills of the youth. Werewolf-Game was used as a psychological game. Werewolf game has about 10 participants and they were divided into 2 teams, werewolf team and citizen team. Werewolf tells a lie and attacks the citizens, citizens try to find the wolf by conversation and expel it. As for this game, games advance by the discussion of all the participants, so communication of the participants becomes very important to win.
Survey participants were 24 university students (who have experienced few werewolf-game before, 10 males and 14 females, Average age is 19.92.). Half participants were divided into an experimental group, and the others were into the control group. The experimental group members played werewolf-games 6 times, and control group members did not. Their communication skills (6 factors) were measured. The questionnaire was carried out before the games and 2 weeks after the games.
According to the t-test, there was no significant difference between the mean of each skill before the games with the control group. As a result, expressivity skill and other acceptance skill after the games were higher than those of the control group. There was no significant difference in other skills. Moreover, as a result, expressivity skill and other acceptance skill after the games were higher than those before the games. There was no significant difference in other skills. These results indicate the possibility that some of communication skills are promoted by the training using the psychological games.

Keywords: Psychological games, communication skills, communication skill training, Werewolf-Game, university students.

1. Introduction

Communication skills are a part of social skills, which work more directly for interpersonal relationship. Makino (2010) have researched on communication skills of junior-school students and communication skills training for them in Japan. Makino (2012) examined the association between communication skills and friendship, their mental health. According to Makino (2012), as the person who had high communication skills for the same-sex, the friend relations were good and the mental health state was good. Communication skills are indispensable for daily life. However, there are many young people who have low communication skills in Japan. Therefore, it seems that communication skill training to improve their skills is necessary in Japan. However, it was hard to say that the past skill trainings were fun. Therefore, this study try to use a psychology game as a pleasant skill training. This study aims at the improvement of the communication skills using a psychology game as one of the communication skill trainings.

2. Objectives

The purpose of this study was to examine the effects of psychological games on communication skills of the youth. This study used Werewolf-Game as a psychological game. Werewolf game has about 10 participants and they were divided into 2 teams, werewolf team and citizen team. Werewolf tells a lie and attacks the citizens, citizens try to find the wolf by conversation and expel it. As for this game, games advance by the discussion of all the participants, so communication of the participants becomes very important to win. This game was very popular even in Japan in 2013. Therefore, most of the university students knew it. This study examined the effects of psychological games on communication skills of the youth. And if the games work to improve their communication skills, this study tried to find which skill was trained by the games. This research will make a substantial contribution to communication studies if it becomes clear that some psychological games are useful for communication skill trainings.

3. Methods

3.1. Participants

The participants were 24 university students (who have experienced few werewolf-game before, 10 males and 14 females, M_{age} is 19.92.). All of them were second year students. Half participants were divided into an experimental group, and the others were into the control group. The experimental group members played werewolf-games 6 times, and control group members did not.

3.2. Procedure

First of all, participants completed a questionnaire before this research in the classrooms. The questionnaire was presented as a study about daily life among university students. They were told to answer the questions without discussing them with others. After the first investigation, they were divided into 2 groups. Half participants were divided into an experimental group, and the others were the control group. The experimental group members played werewolf-games 6 times for two weeks. On the other hand, control group members did not. Two weeks after the game, the students of both groups answered the questionnaire again.

3.3. Measures

The questionnaire was made up of seven scales (and six scales were not analyzed in this study) plus demographic items. It took about 20 minutes to complete.

Communication skills scale. The communication skills self-report scale was used from Fujimoto & Daibo (2007). It included 24 items that were rated on a seven-point scale (1=extremely poor, 7= extremely good). Examples of those items were "I can control my impulse and desire." and "I can express my thought by words well." and so on.

According to Fujimoto & Daibo (2007), the communication skills scale was consisted of six factors: Self control, Expressivity, Decipherer ability, Assertiveness, Other Acceptance, and Regulation of Interpersonal Relationship. This study use these 6 factors as the communication skills.

4. Results

4.1. The comparison between experimental group and control group before the games

Table 1 shows means of each skill before the game. As a result of t-test of the mean of each factor score between experimental group and control group before the psychological games, there was no significant difference between them. This result revealed that there was no difference in their communication skills between experimental and control group before the games.

Table 1. Mean scores of each factor before and after the games in two groups.

Factors	Control group		Experimental group	
	before	after	before	after
1. Self control	5.23	5.11	4.92	4.75
2. Expressivity	4.69	4.51	4.04	4.96
3. Decipherer ability	5.15	4.68	5.02	4.77
4. Assertiveness	4.14	3.55	3.69	3.58
5. Other acceptance	5.79	5.32	5.19	5.82
6. Regulation of interpersonal relationship	5.35	5.62	4.83	4.77

Note. Score range is 1 to 7.

4.2. The comparison between experimental group and control group after the games

Table 1 shows means of each skill after the game. As a result of t-test of the mean of each factor score between experimental group and control group after the psychological games, there were significant differences in two factors: expressivity and other acceptance (see Figure 1 & Figure 2). Expressivity skill and other acceptance skill after the games were higher than those of the control group after the games. There was no significant difference in other skills. These results showed that the participants of experimental group learned how to express their feelings and how to receive others' opinions through the games compared with the participants of control group. However, other two types of skills, assertiveness and decipherer ability, which are considered very important for the were-wolf game, were not raised up by the games.

4.3. The comparison between before and after the games in the experimental group

Table 1 shows means of each skill before and after the game in the experimental group. As a result of t-test of the mean of each factor score between before and after the psychological games in the experimental group, there were significant differences in two factors: expressivity and other acceptance (see Figure 1 & Figure 2). Expressivity skill and other acceptance skill after the games were higher than those before the games. There was no significant difference in other skills. These results showed that the participants of experimental group learned how to express their feelings and how to receive others' opinions through the games. They raised their skills than before. However, other two types of skills, assertiveness and decipherer ability were not raised up by the games.

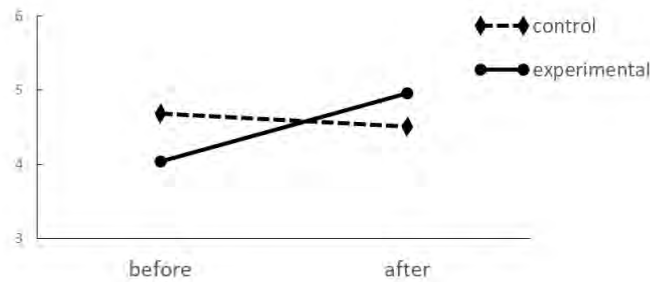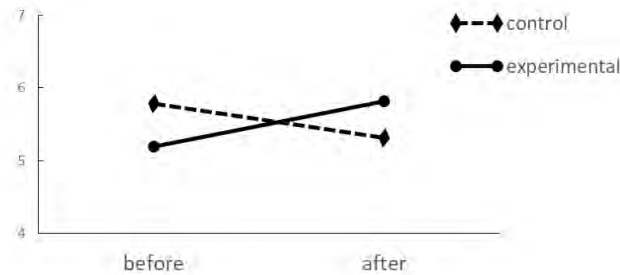*Figure 1. Expressivity skill scores before and after the games.*

Figure 2. Other acceptance skill scores before and after the games.

5. Conclusions

This study examined the effects of psychological games on communication skills of the youth. The psychological games in this experiment raised some communication skills of the participants in the experimental group, but the psychological mechanism was not elucidated. The participants acquired skills how to express their feelings and to accept others' opinions through a game while enjoying. These results indicate the possibility that some of communication skills are promoted by the training using the psychological games.

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A RELATIONAL APPROACH TO LINKAGES BETWEEN PERSONAL-CAREER RESOURCES, IDENTITY CRYSTALLIZATION AND CAREER DECISION-MAKING

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Abstract

The goal of the research was to shed light on the developmental antecedents (i.e., attachment style) of three types of personal career-related resources—ambiguity tolerance (AT), adaptability (ADP), and positive anticipation of the future work-family conflicting demands (AWFC)—and on their role in career-developmental processes. Study 1 examined a model where AT and ADP were the expected mediators of the association between attachment style and vocational identity crystallization (VIC). Study 2 examined the mediating role of AWFC in the association between attachment style and both VIC and career decision-making difficulties (CDMD). Participants were first-year behavioral science college students (N=202, Study 1; N=198, Study 2), who completed several inventories. Path analysis in Study 1 revealed that secure and anxious attachment predicted AT, which in turn, increased career adaptability, with the consequence of elevated VIC. Avoidant attachment was only directly related to VIC. However, in Study 2 AWFC mediated only the relationship between avoidant attachment and the two dependent variables. Anxious attachment was related directly to VIC and CDMD, while secure attachment was not associated to any of the study variables. The findings highlight the centrality of AT, ADP, and AWFC in vocational identity formation and career decision-making, having theoretical and practical implications for career development and counseling.

Keywords: Attachment style, ambiguity tolerance, career adaptability, vocational identity crystallization, career decision-making difficulties.

1. Introduction and objectives

In the post-modern world of work of the 21st century, occupations diversity is constantly increasing, and career transitions and conflicts among role-domain occur more frequently and are generally more complex than two decades ago (Savickas et al., 2009). According to Savickas, this world of work is less predictable, less stable, and characterized by much ambiguity. In such a context, the developmental tasks of creating a clear and a crystallized vocational self-concept, as well as choosing a career path and make a decision, might be extremely stressful (Savickas & Profeli, 2012). The Life Design approach (Savickas, 1997), aimed to provide a theoretical framework to explain how people may effectively handle postmodern life, has proposed that *available resources* (concern, control, confidence, and curiosity) are especially significant in the current era for managing career challenges and transitions.

In the current research project, the proposed models were tested in the context of a relational perspective to career development (Blustein et al., 1995). The main goal was to shed light on the developmental antecedents (i.e., attachment style) of three types of career-related resources—ambiguity tolerance (AT), adaptability (ADP), and positive anticipation of the future work-family conflicting demands (AWFC)—and on their role in career-developmental processes.

The objectives:

- Study 1 examined a model where AT and ADP were the expected mediators of the association between attachment style and vocational identity crystallization (VIC).

- Study 2 examined the mediating role of AWFC in the association between attachment style and both VIC and career decision-making difficulties (CDMD).

2. Method

Participants were first-year behavioral science college students (*N*=202, Study 1; *N*=198, Study 2), who completed the following inventories:

- *Attachment Style.* measured with a questionnaire developed by Mikulincer, Florian and Tolmacz (1990). The questionnaire comprises 15 items measuring secure attachment, anxious attachment, and avoidant attachment. The internal consistency reliability of the three subscales ranged between .79 to .83 (Mikulincer, Florian & Tolmacz, 1990).
- *Ambiguity Tolerance.* measured with the Multiple Stimulus Types Ambiguity Tolerance scale-I (MSTAT-I ; McLain, 1993). The MSTAT-I is designed to assess individual's tolerance for situations that are unfamiliar, insoluble, or complex. The Cronbach's alpha internal consistency reliability reported by McLain (1993) was .86.
- *Career Adaptability.* measured using the Career Adapt-Abilities Scale (CAAS; Savickas & Porfeli, 2012). It is comprised of four sub-scales that measure the four adaptability resources: concern, confidence, control, and curiosity (α = 0.79-0.85).
- *Vocational Self-Concept Crystallization.* Developed by Barrett and Tinsley (1977), and assess various aspects of vocational self-concept crystallization. Barrett and Tinsley reported an internal consistency reliability of .94, a 2-weeks test-retest reliability of .76 in a college sample, and a reasonable validity.
- *Work-family conflict anticipation.* Measured by the WFCA (Cinamon, 2010) both anticipation of work interferes family and family interferes work dimensions. Cinamon reported internal consistency reliability of 0.78 - 0.82.
- *Career Decision-making difficulties.* measured by The Career Decision Scale (CDS; Osipow, 1999). Osipow reported test-retest reliabilities ranging from .82 to .90. In addition, they demonstrated that career intervention significantly diminishes scores on the scale (construct validity). The coefficient alpha for the scale ranges between .60 to .80.

3. Results and conclusions

Path analysis in Study 1 revealed that secure and anxious attachment predicted AT, which in turn, increased career adaptability (β =.32), with the consequence of elevated VIC (β =.50). Avoidant attachment was only directly related to VIC (β = -.32). However, in Study 2 AWFC mediated only the relationship between avoidant attachment and the two dependent variables (β = -.08; -.09, respectively). Anxious attachment was related directly to VIC (β = -.22) and CDMD (β = .19), while secure attachment was not associated to any of the study variables.

The findings highlight the centrality of AT, ADP, and AWFC in vocational identity formation and career decision-making, having practical implications for career counseling. Counselors are advised to assess the availability of these resources and to apply short-term interventions in order to increase their availability, especially for counselees characterized by a non-secure attachment style.

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BECOMING MAJORITY RESULTS IN DECREASED TENSION

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Abstract

The purpose of this study was to investigate how people felt in the majority of a group. In particular, this study focused on changes in emotion, when people became a majority or a minority member.
Experimental research was conducted with a cover story as "the relationship between exercise and stress" in Japan. 19 university students (12 males, 7 females; mean age was 19.79 years) participated in this experiment. Participants were assigned to two conditions at random; "majority" or "minority" condition. First, an experimenter made a group which consisted of 4 persons (2 confederates and 2 naïve participants) and asked them to rate their affective states (base-line measurement). Second, 3 persons wore orange-colored jackets ("majority" condition) and 1 person wore green-colored jacket ("minority" condition). After that, participants rated their affective states (1st time measurement). Third, participants did low impact activity at his/her own pace, and then they rated their affective states again (2nd time measurement). Affective states were assessed by the General Affect Scales made by Ogawa et al. (2000). This scale used 5-point Likert scale and consisted of three subscales; positive affect, negative affect, and calmness.
It was found that the negative affect at 1st time measurement decreased compared with base-line in "majority" condition (t (9) =2.60, p<.05). On the other hand, "minority" condition showed that their calmness at 1st time measurement decreased compared with base-line (t (8) =2.33, p<.05). It was suggested that the position of numerical majority or minority make people feel some specific emotions.

Keywords: Majority, minority, affective states, experimental study.

1. Introduction

As Baumeister and Leary (1995) said, a need to belong was a fundamental human motivation. According to this "belongingness hypothesis", majority members are likely to be accepted in a certain group. On the other hand, an individual as a minority member in a group may experience some psychological threats of the rejection. Many previous studies have demonstrated that harmonious relationships related to an individual's mental and physical health, while poor interpersonal relationships elicited "social pain" and associated with psychological distress (e.g., Leary & Baumeister, 2000).

However, few studies have examined changes in a majority-minority status and its impacts on emotion. Prislin, Limbert, & Bauer (2000) examined effects of a majority-minority position change. It was found that losing a majority position decreased one's subjective group attraction, cognition of the similarity, and preference to group membership (Prislin et al., 2000). Sano (2011, study1) examined the effects of a majority-minority position change on positive affect, negative affect, and calmness. It was found that participants who were majority all through the experiment reported higher positive affect than participants who were minority all the time. Also, participants who was forced to change his/her positions from majority to minority reported higher negative affect than participants who did not change his/her positions (i.e. staying at a majority). The result of calmness was difficult to interpret because calmness was lower over time with no relation to his/her position and a position change.

This study focused on changes in various affective states, when an individual became a majority or a solo minority member. It was assumed that becoming a majority member would make people hold positive feelings and feel relieved, on the other hand, becoming a solo minority member would make people hold negative feelings and feel tension.

2. Methods

Experimental research was conducted in Japan. 19 university students (12 males, 7 females; mean age was 19.79 years, *SD*=.86) participated in this experiment voluntary. Participants were assigned

to two conditions at random; "majority" or "minority" condition. First, an experimenter made a group of 4 persons which consisted of 2 confederates and 2 naïve participants and asked them to rate their affective states (base-line measurement). Second, 3 persons wore orange-colored jackets and 1 person wore green-colored jacket. After that, participants rated their affective states (1st time). Third, participants did low impact physical activity at his/her own pace for 3 minutes, and then they rated their affective states again (2nd time). Affective states were assessed by the General Affect Scales (Ogawa et al., 2000). This scale used 5-point Likert scale and consisted of three subscales; positive affect, negative affect, and calmness.

3. Results and Discussion

Three affective states were analyzed by using 2 (condition as a between-subjects factor) ×3 (time as a within-subjects factor) ANOVAs. Both the "majority" and the "minority" conditions showed few changes in positive affect as shown in Table 1 and Figure 1. There were no significant interaction effect ($F (2, 17) = .74$, ns) and main effects ($F(1, 18) =0.11$, ns; $F(2, 17) =3.56$, ns).
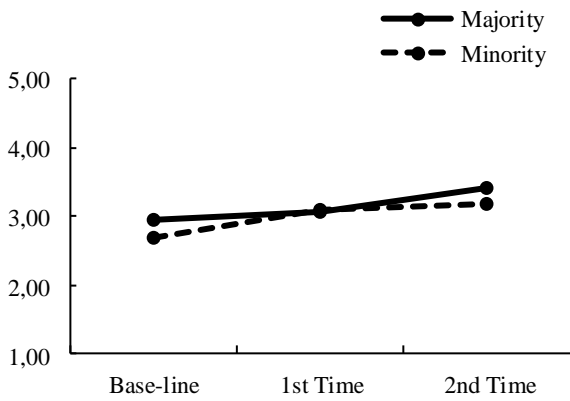

Figure 1. Changes of Positive Effect.

Table 1. Description of Positive Effect.

	Base-line		1st Time		2nd Time	
	M	*SD*	*M*	*SD*	*M*	*SD*
Majority (*N*=10)	2.94	0.81	3.06	0.69	3.41	0.82
Minority (*N*=9)	2.69	1.13	3.10	1.34	3.17	1.40

Changes of negative affect in the "majority" and the "minority" conditions were shown in Table 2 and Figure 2. The "majority" condition was likely to decline negative affect gradually. There was a main effect for time ($F (2, 16) =11.58$, $p<.01$). Also, ANOVAs indicated that there was a significant interaction effect ($F (2, 17) =9.73$, $p<.001$). Planed comparisons showed that in the "majority" condition, the negative affect at 1st time measurement decreased compared with base-line, also negative affect at 2nd time measurement decreased compared with 1st time measurement ($F (2, 17) =22.33$, $p<.001$). However, in the "minority" condition, there were not any significant differences ($F (2, 17) = .15$, ns).
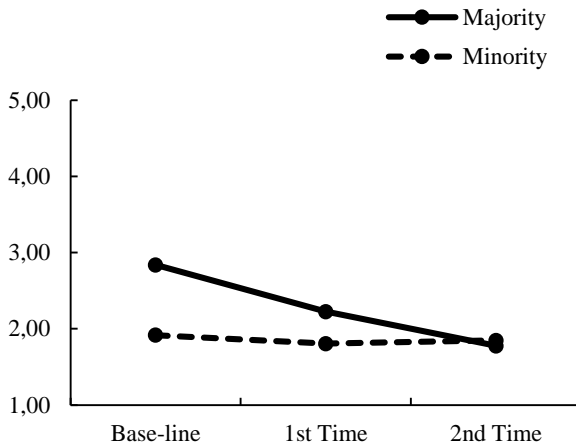

Figure 2. Changes of Negative Effect.

Table 2. Description of Negative Effect.

	Base-line		1st Time		2nd Time	
	M	*SD*	*M*	*SD*	*M*	*SD*
Majority (*N*=10)	2.84	0.97	2.23	0.81	1.78	0.61
Minority (*N*=9)	1.92	0.96	1.81	1.00	1.85	0.95

The results of calmness were shown in Table 3 and Figure 3. The calmness at 1st time measurement decreased compared with the base-line regardless of conditions (F (2, 17) =6.68, p<.01). However, planed comparison indicated that there were no significant differences in the "majority" and the "minority" condition (F (2, 17) =1.31, ns).
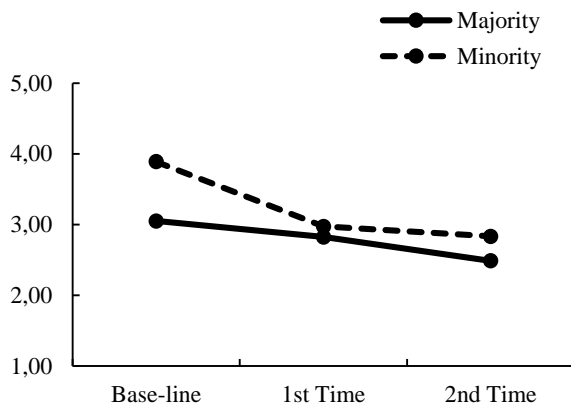

Figure 3. Changes of Calmness.

Table 3. Description of Calmness.

	Base-line		1st Time		2nd Time	
	M	*SD*	*M*	*SD*	*M*	*SD*
Majority (*N*=10)	3.05	0.85	2.83	0.95	2.49	1.10
Minority (*N*=9)	3.89	0.90	2.97	1.21	2.83	1.18

It was suggested that the position of numerical majority or minority make people feel some specific emotions. In particular, becoming a majority member decreased negative affect. This result seemed to be consistent with "belongingness hypothesis" because being a member of a certain group meant an acceptance from others. When individuals saw themselves in majority, their anxieties and tension became lower. A majority position was considered as some symbol of harmonious relationships. The results of positive affect were not consistent with predictions. It was possible that there was a time lug by emotions. Negative affect immediately reacted to circumstances, on the other hand, positive affect might take time to react. The experiment was too short to influence participants' positive effects. The results of calmness were not consistent with predictions but supported Sano (2011, study 1). It is considered that an experiment was unfamiliar situation for participants and were uncomfortable feeling over time.

4. Conclusion

This study focused on the effects of changes in some emotions when individuals were in majority or minority. It was suggested that becoming a majority member result in lower negative emotion which reflected the "belonging hypothesis".

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TYPES OF COPING, COGNITIVE BEHAVIORAL THERAPY AND REINSTATEMENT OF THE UNEMPLOYED

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Abstract

Introduction. Coping strategies help the individual to prepare himself to better deal with possible threatening situations, such as unemployment. On the other hand, cognitive behavioral therapy (CBT) aims to accelerate the social and occupational reinstatement of the unemployed and improve their quality of life.

The aim of this research was to highlight if there are any differences between the two genders in coping strategies of unemployed individuals. A secondary objective was to systematically increase the degree of social and professional reinstatement by applying CBT interventions.

Material and method. Subjects in this study were: 102 males and 106 females, aged between 20 and 65 years old, from urban areas, unemployed, randomly selected.

A cross-sectional study was developed, using the following assessment instruments: a psychiatric interview to check if there are any possible mental disorders which require special attention and a Brief COPE scale.

Results. After studying each type of coping, according to gender, it has been stated the following: males would be more likely to use problem-centered coping strategies (61.8%) as opposed to females (38.2%); females, on the other hand, tend to use emotion-centered coping, with a higher score (68.9%) than males – only 31.1%; avoidant coping is more likely used by men (58%), whereas women use it only 42%.

Conclusion. Males would be more likely to use problem-centered and avoidant coping, whereas females would be more likely to use emotion-centered coping. CBT proved to be effective and increased the quality of life in both genders.

Keywords: Unemployed, gender, coping strategies, Brief COPE scale, CBT.

1. Introduction

Coping strategies represent a set of actions used when facing with difficult and threatening situations in order to maintain our well-being (Riga S & Riga D, 2008; Zlate & Negovan, 2006; Iamandescu, 2010; Bordea & Pellegrini, 2016). Coping strategies alert the individual, groups or governmental institutions to sort and plan different ways to cope with possible threats, such as unemployment or any other vital needs (Gowan & Gatewood, 1997; Bordea & Pellegrini, 2014).

Gender, along with other personality characteristics, has a major influence over individual behaviour and coping strategies (Baban, 1998).

In time, long-term unemployment can lead to stress, low self-esteem and negative thoughts towards the outside world and the future (Montgomery, Cook, Bertley and Wadsworth, 1999; Skarlund, Ahs and Westerling, 2012).

Long-term unemployment can have destructive effects that make the object of study of the cognitive-behavioral approach (Baciu, 2003).

Cognitive-behavioral therapy aims to minimize the unemployment rate, increase the social-professional inclusion level and improve the quality of life of unemployed people.

2. Objective

The aim of this research was to highlight if there are any differences between the two genders in coping strategies of unemployed individuals. A secondary objective was to systematically increase the degree of social and professional reinstatement by applying CBT interventions.

3. Methods

The sample consisted of 102 males and 106 females, aged between 20 and 65, from urban areas, unemployed, randomly selected. Participant selection took place in 2017, at the Local Employment Agency in Craiova, Dolj County and was based on volunteering and free consent, preceded by a psychiatric interview and inclusion-exclusion criteria.

Inclusion criteria: males and females from urban environment, at least one month of unemployment, aged between 20 and 65; educational levels: primary, secondary or higher.

Exclusion criteria. Unemployed individuals with severe mental disorders previously diagnosed or diagnosed during the selection interview and those with severe somatic diseases with major impact on the human brain; alcoholism, drug addictions, people suffering from substance abuse and individuals who provided incorrect or incomplete personal data.

The study subjects consisted of a sample of the reference population (the unemployed) with its characteristics. The independent variables used were age and gender. The dependent variable used was the type of coping.

A cross-sectional study was performed and the following assessment instruments were used:
- a psychiatric interview to examine if there are any possible mental disorders which require special attention,
- Brief COPE scale.

Brief COPE questionnaire was the selected measure of coping strategies. COPE questionnaire contains 14 scales, which can test active and passive coping types. The questionnaire includes 28 items. Answers are given from a 1 to 4 scale, where 1 represents „I usually don't do this at all", and 4 „I usually do this a lot".

The assessment of the level of social and professional reinstatement after applying CBT interventions was performed by comparison to a control sample of 98 males and 102 females. The therapeutic intervention consisted of a stress management program based on a cognitive-behavioral approach. It was made up of 6 sessions of one hour (individual) or 6 sessions of 2-hours for groups. Chi-square test was used to observe the differences between samples, based on professional reinstatement level.

4. Results and discussions

A predominant coping style was classified by gender, according to the extensive use of Brief COPE scale on the group of study (Figure 1).

Men and women act differently in response to unemployment, as per the following results: in case of men, most of them use problem-centered coping methods (45.2%), followed by those with avoidant coping (27.9%) and those who use emotion-centered coping (26.9%); women tend to use emotion-centered coping strategies (55.4%), while problem-centered coping manifests to 25.9% of women, and avoidant coping, to only 18.8%.

Table 1. Unemployed distribution by type of coping and gender.

Coping type	% of	Male	Female
Problem-centered	Coping	61.8%	38.2%
	Gender	45.2%	25.9%
Emotion-centered	Coping	31.1%	68.9%
	Gender	26.9%	55.4%
Avoidant	Coping	58%	42%
	Gender	27.9%	18.8%

The level of social and professional reinstatement was assessed among the two study samples.

As per the below table, we can see that subjects from the experimental sample (who received cognitive-behavioral therapy) were more likely to be professionally integrated (36.57%) than the control sample (19.44%) (who did not receive any CBT intervention) (Table 2).

Table 2. Level of professional reinstatement among the two study samples.

Reintegration	Average (Experimental sample)	Average (Control sample)
No	63.43%	80.56%
Yes	36.57%	19.44%

There are important differences between the initial and the final status, thus a part of the unemployed managed to get a job after 6 months of CBT intervention.

Consequently, according to the chi-square test results (0 empirical value, below the 0,05-standard level, rejecting the null hypothesis), CBT intervention increased the socio-professional integration (Table 3). Especially, we noticed significant differences between the initial and the final status in a number of higher education female patients with a longer period of inactivity after postnatal leave, as highlighted by other studies conducted in our country.

Table 3. Differences between unemployed according to the degree of professional reinstatement.

	Reemployment after 6 months
Chi-square test	15.574
Degrees of freedom	1
Asymptotic value	.000

5. Conclusions

Males would be more likely to use problem-centered and avoidant coping, whereas females would be more likely to use emotion-centered coping. CBT proved to be effective and increased the quality of life in both genders.

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DEVELOPMENT OF A DESCRIPTIVE/INJUNCTIVE NORM PREFERENCE SCALE

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Abstract

This study was the first report of developing Descriptive/Injunctive Norm Preference Scale, which intended to measure individual differences in personal attitudes against social norms. Cialdini et al. (1991) distinguished social norms into two types. Descriptive norm is decided by what behavior most people engage in a particular situation, which is reflected in perceived typicality. Injunctive norm, on the other hand, is defined by habits or moral rules, which represents what people approve/disapprove. This study was inclined to develop a scale that assess the tendency how people prefer to obeying/violating descriptive/injunctive norms.

Participants were recruited from a research company panel. Four hundred adults (200 males, 200 females; aged 20-59) responded to online questionnaires. Pilot items for this study were created from the viewpoint of attitude (cognition, affection, and behavior) toward descriptive/injunctive norms. Respondents rated 90 items on 5-ponit Likert-type scales.

Exploratory factor analysis (extraction: maximum likelihood, rotation: promax) indicated a 3-factors structure. The factors were named F1: Apprehension of deviance from descriptive norm (e.g. "I am worried about whether I behave differently from the surrounding people."), F2: Regard for injunctive norm ("Rules are important for everyone to live comfortably."), and F3: Aversion to injunctive norm ("Traditions and customs are stuffy."). A tentative scale was suggested, and further data collection would be needed to confirm the factor structure and verify the validity related to similar/opposite constructs.

Keywords: Scale development, injunctive and descriptive norms, individual differences.

1. Introduction

Social norms influence an individual's behaviors. According to Cialdini et al. (1991), social norms can be distinguished into two types. Descriptive norm is decided by what most people do in a particular situation, which may bring about perceived typicality. On the other hand, injunctive norm is defined by moral rules, which reflects what people approve/disapprove. In many cases, these types of norms agree with each other. People recognize thieving as vice, and most people do not engage in such a misdeed. In some cases, however, descriptive norms can conflict with injunctive norms. Although people think they should not litter in public places, rubbish on the ground may indicate that many people litter habitually. When the two types of norms are disparate, the descriptive norms have greater effects on individuals' behaviors than the injunctive norms do (Cialdini et al., 1990).

Our previous research tried to reveal affective states when people obey/violate social norms. Sano et al. (2010) showed Japanese people feel calmer and have less negative affects when they follow descriptive norms. These tendencies seemed to be robust across demographic and cultural backgrounds. Exploration about genders, age-groups, and some other individual differences such as fear of success in Japan (e.g. Kuroishi & Sano, 2013), and especially individualism-collectivism and need for uniqueness among East Asian countries (Kuroishi & Sano, 2015; Sano & Kuroishi, 2015), indicated these factors were irrelevant to the affective states. Only the within-subject examination revealed rejection sensitivity moderate the affective reactions to social norms in Japan (Kuroishi & Sano, 2017).

This study tried to construct a scale that assess directly how people prefer to obeying/violating descriptive/injunctive norms.

2. Methods

2.1. Measure

Ninety items were generated according to the original Cialdini's theory. Each items referred cognition, emotion, or behavior along with obeying/violating descriptive/injunctive norms (see *Table 1* below for item details).

2.2. Data collection

Web questionnaire survey was applied in this study. Four-hundred Japanese of the panel who have registered with Neo Marketing Inc. participated in our study. Respondents were planned to be obtained equally from 4 demographic groups; genders (males and females) x age-groups (aged 20-39 and 30-59). Data were collected successfully, and the sample consisted of 100 younger males (aged 33.7), 100 older males (aged 51.0), 100 younger female (aged 32.0), and older female (aged 47.9). Participants got access to the website and completed the questionnaire with agreement with providing their data for the study.

2.3. Procedure

Respondents were asked to read the statements about descriptive/injunctive norms carefully, and decide how they agree to each opinion on 5-point rating from "strongly disagree" (1) to "strongly agree" (5). The items were randomly displayed to each respondent.

Table 1. Factor Pattern Matrix of 3-Factor Solution.

Item Details	F1	F2	F3	Com.
It is embarrassing unless I do the same behavior as the surroundings.	.85	-.25	-.06	.65
I want to do the same with everyone.	.84	-.12	-.14	.63
I'd like to do the same thing as everyone.	.80	-.17	-.10	.59
I am worried that I am not doing the same thing as everyone else.	.80	-.17	-.10	.57
I am worried about whether I behave differently from the surrounding people.	.77	-.02	.08	.58
I want to do the same by looking at the behavior of people around me.	.76	.01	.03	.60
I am careful not to get out of what everyone is doing.	.74	.09	.01	.57
I am concerned about being out of touch with other people.	.73	-.01	.02	.57
I want to adopt what many people do.	.72	-.01	-.01	.52
I am relieved that I am doing the same as the surrounding people.	.71	.10	-.03	.53
I feel nervous when I am different from other people.	.71	-.03	.04	.49
I can not stop looking at what everybody is doing.	.70	-.04	.07	.53
I am okay when I follow the things people do.	.69	-.03	.12	.54
It is better to tailor to the behavior many people do.	.68	.14	-.04	.48
I act like people around me before I know it.	.68	.12	-.01	.49
I feel quite safe when keeping the same behavior as othrt people.	.67	.08	.08	.51
I often behave like the surrounding people at first.	.63	.16	.17	.55
I am concerned about the state of the surrounding people.	.61	.07	.04	.46
I look down on those who behave differently from everyone.	.61	-.12	-.01	.41
Apart from my opinions, it is better to behave in the same way as everyone.	.58	.15	-.01	.42
It is better to do in concert with everyone.	.58	.22	-.08	.33
I often slip my eyes attracted towards behaviors of the surrounding people.	.57	.13	.04	.41
I don't want to act out of the surroundings.	.57	.16	-.05	.41
It is better to keep rules.	-.05	.83	-.05	.65
I try to keep rules and regulations.	-.07	.83	-.06	.66
I want to act socially approoreate.	-.08	.81	.09	.59
Rules are important for everyone to live comfortably.	-.04	.78	.02	.63
It is natural to observe rules.	.08	.74	-.11	.60
It is not good to break rules.	.10	.70	-.04	.54
I feel anger for those who do not follow rules.	.03	.61	-.06	.39
I want to make rules so that confusion will not occur.	.11	.57	.12	.41
Old customs has some meaning.	.00	.56	.02	.32
I don't like customs or traditions.	.08	.06	.68	.44
I am not concerned about customs and traditions.	-.19	.11	.68	.48
I don't want to be tied down with customs.	-.07	.19	.67	.50
Traditions and customs are stuffy.	.15	.07	.66	.49
I do not want to obey customs and traditions.	.16	-.13	.64	.38
It does not matter whether I can follow customs and traditions.	.04	-.26	.62	.49
I don't mind even if I break customs and traditions.	-.06	-.20	.61	.43
I don't want to be bound by rules.	-.10	.11	.61	.40
I don't care about customs and traditions.	.03	-.09	.58	.34
Sum of Squared Factor Loadings	12.18	6.80	3.96	22.94

3. Results and discussion

First, an exploratory factor analysis by maximum likelihood extraction and with a varimax rotation was conducted. Three-factor solution was adopted according to the scree plot. In consideration of a simple structure of the scale as a whole (i.e. factor loadings on a principal factor were greater than .45, and on other factors were less than .30) and internal consistency of each factor, items were selected for a subsequent analysis. Subsequently, an exploratory factor analysis by maximum likelihood extraction with a promax rotation was conducted on the 41 selected items of the scale (see *Table 1* above for the factor pattern matrix).

The results indicated 3-factor structure as assumed from the previous analysis. The extracted factors were interpreted and named as follows. F1: Apprehension of deviance from descriptive norms (e.g. "I am worried about whether I behave differently from the surrounding people."), F2: Regard for injunctive norms ("Rules are important for everyone to live comfortably."), and F3: Aversion to injunctive norms ("Traditions and customs are stuffy."). The inter-factor correlation coefficients were $r_{F1\text{-}F2}$=.36, $r_{F2\text{-}F3}$=.08, and $r_{F3\text{-}F1}$=.08, respectively. These results suggested approximately simple structure of the scale.

The Cronbach's α coefficients of the hypothesized subscales were α_{F1}=.96, α_{F2}=.91, and α_3=.86 respectively, and which indicated substantially high reliability.

4. Conclusions

These results indicate feasibility of the Descriptive/Injunctive Norm Preference Scale. Especially it might predict the tangible behaviors people adopt in various situations, or distinguish the types of people who have different affects toward descriptive/injunctive norms. In any ways, this scale will contribute to research exploring the psychology of social norms.

There is, however, plenty of room for improvement. First, this scale is needed to verify its construct validity with comparing to the relevant psychological concepts: For examples, need to belong (Leary et al., 2012) for descriptive norms, and right-wing authoritarianism (Altemeier, 1981) for injunctive norms. Second, the original scale is in Japanese, and it is needed to develop English and some other language versions to examine its cross-validation. These attempts will enable international comparative studies across cultures.

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FIDELITY, SELECTED INTRA/INTERPERSONAL FACTORS AND EFFECTIVENESS OF UNIVERSAL DRUG PREVENTION PROGRAM

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Abstract

The Unplugged prevention program (APVV-15-0662, 0253-11, KEGA 016UPJŠ-4/2017 was tested in Slovakia in 60 primary schools. The level of teachers´ engagement in the implementation was used as an indicator of the program fidelity. The aim was to explore the differences in psychological factors and pupils´ risk behaviour measured at different time points; before the implementation (T1), n=1298, 52.3% of girls, age=11.52, SD = 0.61 and 12 months after the implementation (T4), n=872. The data were analysed within an experimental design: a control group (CG), an experimental group (EGLF) with low fidelity and an experimental group with good fidelity (EGGF) - teachers provided more than 6 feedback reports after all 12 sessions. The CG and EGGF were found to differ (T1-T4) in the change of lifetime alcohol use and in the change of alcohol normative beliefs of friends. The lifetime drinking level changed the least in the EGGF. The normative beliefs of friends were seen to increase more in the CG than in the EGGF. The EGLF and the EGGF differed (T1-T4) in the change of smoking over one year, in the change of self-control and in the change of normative beliefs of siblings regarding smoking. Self-control decreased with age in all groups but least in the EGGF. The normative beliefs of siblings regarding smoking were more realistic in the EGGF group when compared to the EGLF. The development and testing of psychosocial health promotion programs should consider both the effectiveness as well as fidelity of the implementation of preventive programs.

Keywords: Lifetime alcohol use, smoking over one year, normative beliefs of friend, normative beliefs of siblings, self –control.

1. Introduction

The UNPLUGGED program is a universal school-based prevention program for young adolescents who are 12-14 years old. This program has been developed within the European project EU-DAP (European Drug Use Prevention) which connects several European countries with a common goal to create a prevention program which would meet the criteria of prevention implementation standards and at the same time correspond with the European cultural environment (Gabrhelík, et al. 2012).

In addition to the evaluation of effectiveness of the UNPLUGGED, particular attention has been paid to the quality of the program implementation. This is also known as program fidelity and refers to the accuracy and integrity of the whole implementation process. Fidelity as such guarantees that the program is carried out as originally developed and individual components of the program are monitored for problems which arise and must be resolved during the actual implementation process. Hansen (2014) defines the following dimensions of fidelity: adherence – a level of deviation of the implemented version from the original program; exposure – the level of intervention exposure, which means whether the target group went through the whole program or only through its selected parts; perceived responsibility of the target group and its reaction to participating in the intervention; quality of delivery – expertise of the staff, specific issues related to the implementation – monitoring of other parallel prevention activities or monitoring of different components of the intervention such as coping with anxiety or resisting pressure. An important, if not crucial indicator of fidelity, is the engagement of the teachers which could be measured by the amount of feedback after completing interventions. A connection between teachers´ engagement and the effectiveness of prevention programs has been reported (Gabrhelík et al, 2012).

2. Design

A cross-sectional design was used.

3. Objectives

This study explored the differences in changes observed between T1-T4 in selected intra/interpersonal factors of pupils (normative beliefs regarding drinking of peers, normative beliefs regarding smoking of siblings, self-control) and their risk behavior (lifetime alcohol use, smoking over the last year). These were assessed over time, starting immediately before the program implementation (T1) and 12 months after the completion of the program (T4) in groups of pupils divided by the level of fidelity and the level teachers´ engagement.

4. Methods

4.1. Participants and recruitment

The data were collected as a part of an evaluation study of the school-based prevention program UNPLUGGED. In this program, 60 primary schools from Slovakia (30 assigned to the experimental and 30 to the control group) participated, one 6th grade class from each school. The data from the first T1 and the fourth T4 wave of this ongoing longitudinal study were used.

4.2. Measures

4.2.1. Sample. In total, 1298 pupils participated at the baseline (prior to implementation) of the UNPLUGGED program (APVV-0253-11, APVV-15-0662) and 872 pupils participated at T4, 12 months after the implementation of the program.

4.2.2. Measures. Change in drinking T1-T4: Lifetime drinking was measured at T1 and T4 by the question: How many times (if at all) have you drunk an alcoholic beverage in your life? Respondents had the following answer options: 1: 0x, 2: 1-2x, 3: 3-5xc, 4: 6-9x, 5: 10-19x, 6: 20-39x, 7: 40x or more. The change was calculated by subtracting T1 from T4 (ESPAD 2011).

Change in smoking T1-T4: Smoking was measured by the question (at T1 and T4): How many times (if at all) have you smoked cigarettes during the last 12 months? Respondents were given the following answer options: 1: 0x, 2: 1-2x, 3: 3-5xc, 4: 6-9x, 5: 10-19x, 6: 20-39x, 7: 40x or more. A change in smoking was calculated by subtracting T1 from T4 (ESPAD 2011).

Change in normative beliefs regarding the drinking of friends T1-T4: Normative beliefs regarding the drinking of friends was measured at T1 and T4 by the question: How many of your friends, based on your estimation, drink alcoholic beverages (beer, wine, hard alcohol)? Answer options were: 1- no one, 2- a few, 3 - many, 4- most, 5- all. A change in the perception of norms of drinking of friends was calculated as the difference between T1 and T4 (ESPAD 20011).

Change in normative beliefs regarding the smoking of siblings T1-T4: Normative beliefs regarding the smoking of siblings was measured at T1 and T4 by the question: Does any of your siblings do following things: - smokes daily? With the following possible answers (1-yes, 2- no, 3- don't know, 4- don't have any siblings). The change was calculated as a difference between T1 and T4 (ESPAD 2011).

Change in self-control T1-T4: Self-control was measured by an 11-item Self-control scale (Finkenauaer, Engels, Baumeister, 2005) with the possible answers 1- not like me at all to 5 – very much like me. A higher score means higher self-control. Cronbach´s alpha of the scale at T1 was 0.733 and at T4 0.815. The change in self-control was calculated as the difference between the answers at T1 and T4.

4.3. Statistical analyses

The pupils were divided according to the experimental design: 1. Control group – 50.7% and two experimental groups created according to the level of engagement of the teachers: 2. A group of pupils of those teachers (12.4%) who did not provide feedback (provided less than 6 feedbacks) 3. Group consisted of pupils of those pupils who´s teachers provided feedback for more than 6 reports after the 12 sessions of the UNPLUGGED program (36.9%). After a basic description of the three groups (chi-square) ANOVA with a Scheffe post hoc test was used to explore the differences in the changes in lifelong drinking T1-T4, changes in smoking T1-T4, changes in normative beliefs of drinking of friends T1-T4, changes in normative beliefs of smoking of friends T1-T4, changes in self-control T1-T4 between the groups of young adolescents.

5. Results

ANOVA followed by a Scheffe post hoc test confirmed significance of the changes (T1-T4) in the measured variables of risk behaviour: in lifelong alcohol use (F=3.454;p=0.032), smoking (F=3.267;p=0.039), in normative beliefs regarding alcohol use of friends (F=3,603;p=0,028), normative beliefs regarding smoking of siblings (F=3.603;p=0.028), self-control (F=3.980;p=0.019) between groups divided according to the teachers´ engagement.

The following statistically significant differences were found: The CG (control group) and EGGF (experimental group with high fidelity) were found to differ (T1-T4) in the change of lifetime alcohol use (p=0.049) and in the change of alcohol normative beliefs of friends (p=0.033). The lifetime drinking level changed the least in the EGGF. The normative beliefs of friends were seen to increase more in the CG than in the EGGF. The EGLF (experimental group with low fidelity) and the EGGF (experimental group with high fidelity) differed (T1-T4) in the change of smoking over one year (p=0.041), in the change of self-control (p=0.020) and in the change of normative beliefs of siblings regarding smoking (p=0.043). Self-control decreased with age in all groups but least in the EGGF. The normative beliefs of siblings regarding smoking were more realistic in the EGGF group when compared to the EGLF.

6. Discussion and conclusion

The development of psychosocial programs in health promotion should be based not only on the monitoring of the effectiveness of these programs but also on monitoring the quality of the implementation by addressing fidelity.

This study has confirmed the trends in risk behaviour among young adolescents. In particular, it has shown increasing levels of alcohol use and smoking as well as selected intrapersonal characteristics, decreasing self-control, which is in line with other research studies (Guillén et al, 2015, Wills et al., 2013). Furthermore, the significance of monitoring the fidelity of preventive program was shown in to have a protective effect. It was found that the group of pupils with teachers manifesting high fidelity showed a weaker increase in drinking and lower normative beliefs regarding drinking of friends and more accurate normative beliefs regarding smoking of siblings and a weaker decreasing tendency in self-control over time.

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DO PARENTS-CHILD PROCESSES MEDIATE THE ROLE OF SELF-ESTEEM ON HEALTH RISKY BEHAVIOURS AMONG YOUNG SLOVAK ADOLESCENTS?

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Abstract

Lower levels of self-esteem (SE) have been frequently associated with a full range of healthy risky behaviour such as alcohol and drug use, smoking and sexual risk behaviour. However, much less scientific attention has been paid to the role of parental-child processes (PP) as a possible mediator. Therefore, the aim of this study was to explore whether PP mediate the effect of self-esteem on risky behaviour.

A cross-sectional representative dataset from elementary schools was used (N= 572, M=11.5 years, SD=0.59, 50.79% boys). Four types of PP (child disclosure, parental solicitation, parental knowledge, parental monitoring) were measured. Regarding risk behaviour respondents were asked about the frequency of smoking, alcohol use and being drunk during their lifetime. By combining all three variables, a single – behavioural risk index variable was created. Linear regression models and mediation analyses were used for data analysis in SPSS 21.

In general, the adolescents in sample scored low in behaviour risk index with no gender differences. However, linear models showed that lower levels of SE were associated a higher score in risk index, but only among girls. Similarly, lower levels of child disclosure and parental monitoring were associated with higher scores in risk index among boys and girls. The analysis has confirmed a mediation effect of child disclosure and parental monitoring on relationship among self-esteem and risk behaviour. These results hold for both processes for girls and boys.

Both, child disclosure and parental monitoring, were positively associated with SE and mediated the associations between SE and risk behaviour. Therefore, we may conclude that the quality of parent-child processes may increase self-esteem of young adolescents and thus protect adolescents from risk behaviour.

Keywords: Young adolescents, risky behaviour, parents-child processes, self-esteem.

1. Introduction

Smoking is the most frequent form of substance use, and its harmful impact on health is well documented. Tobacco use among young people leads to a full range of health related problems, including reduced lung function, increased asthmatic problems, coughing, wheezing and shortness of breath, and reduced physical fitness. Similarly, regarding alcohol use, results indicates that more than half of all students have consumed alcohol at the age of 13 years or younger. The proportion of students who reported having been drunk at the age of 13 or younger varies greatly across countries (Hibbel, 2004). Together with alcohol the tobacco use, is most frequently used by adolescents as their first licit drugs. Recently, young people have reported using more drugs and starting to do so at an earlier age (Currie et al., 2008). Patterns of substance use, initiation and progression in adolescence are generally considered to be predictive of later involvement with substance use and exposure to its harmful consequences (Tucker, Ellickson, Orlando, Martino, & Klein, 2005). Understanding the factors associated with substance use in adolescents is therefore essential in the field of prevention and health promotion.

Many studies from the past decade have focused on the role of self-esteem in relation to health-related behavior, whether it is a health enhancing or health-endangering behavior. Additionally, self-esteem has been shown to be associated with initiation and continuation of the use of tobacco and cannabis (Kokkevi, Richardson, Florescu, Kuzman, & Stergar, 2007; Wild, Flisher, Bhana, & Lombard, 2004).

The role of self-esteem in alcohol use among adolescents is not clear. On one hand, it is known that positive self-esteem may function as a buffer against deviant behaviour by facilitating better psychological adjustment (Schweitzer et al., 1992). On the other hand, here are some inconsistent results from studies showing both abstainers and high/ excessive users having higher levels of self-esteem (Lifrak et al., 1997; Freeman & Newland, 2002). However, self-esteem should be seen not only as a single factor but also in the framework of a multidimensional theory, considering its connection with other factors as well. Positive self-esteem could be seen as an essential feature of mental health and also as a protective factor in the fi eld of health and social behavior. In contrast, negative self-esteem could play an important role in the development of a range of mental disorders and social problems, such as depression, anxiety, violence, high risk behaviors and substance use (Mann, Hosman, Schaalma, & de Vries, 2004).

Undoubtedly, family is one of the most significant contexts that determine the development of children and adolescents. Such construct as a values, norms and attitudes are formed in the family environment and may further shape the basics of behavior. Many studies (e.g. Fisher et al., 2007) have found that living in a single-parent family or families where one of the parent is not active on parenting processes increases the risk of adolescent cigarette and alcohol use.

Therefore, the aim of this study was to explore whether parental processes mediate the effect of self-esteem on risky behaviour.

2. Methods

2.1. Sample
Participants were recruited from the national project VEGA focused on parental processes in context of health risky behaviour of adolescents. This analyses is based on data from 581 (51.1% males; mean age = 13.5; SD = 0.65) students from 12 basic school from Slovakia.

2.2. Measures
Self-esteem was assessed with the Rosenberg Self-esteem scale RSES (Rosenberg, 1965). The 10 items of the RSES assess a person's overall evaluation of his/her worthiness as a human being (Rosenberg, 1979). Responses range on a 4-point scale from 1 (strongly disagree) to 4 (strongly agree). Global self-esteem factor can then be calculated, with the sum score ranging from 10 to 40. A higher score indicates higher self-esteem. Cronbach's alpha for global self-esteem was 0.76.

Regarding parental processes (child disclosure – 5 items, parental solicitation – 5 items, parental knowledge – 7 items, parental monitoring – 5 items) respondents were asked (using 5 point scale) how they perceived the parenting processes from parents. The higher score indicates the higher level of parental process. Cronbach's alpha for parental processes varied from 0.51 to 0.61.

Regarding alcohol use students were asked: (1) if they used alcohol during last 30 days (no / yes); 2 if they have been ever drunk (yes/no). Regarding cigarette use students were asked: if they smoked cigarette during last 30 days (yes/no). By combining all three variables, a single – behavioural risk index variable was created where higher score indicates higher level of risk behaviour.

2.3. Statistical analyses
Firstly we selected only those respondents which answered question regarding all types of risk behaviours. After that we dichotomized three outcome variables (as indicated in method section). Finally, we performed multiple regression analyses by using a PROCESS procedure for SPSS (Hayes, 2012) to examine whether the relationship between independent variable (self-esteem) and dependent variable (risk behaviour index) is mediated through parental processes (mediator). Model was adjusted for gender.

3. Results

In general, the adolescents in sample scored low in behaviour risk index with no gender differences. Only about 4% of adolescents reported smoking in last 30 days and being drunk at least once. Regarding alcohol use in last 30 days, 20% of adolescents reported such behaviour. Regression analyses showed negative relationship between self-esteem and risk behaviour (B = -.224; t= -3.66, p=.001) as those adolescents with higher self-esteem scored low regarding risk behaviour but only among girls. Similarly, all explored parental processes except parental solicitation were negatively associated with risk behaviour of girls and boys.

Further analyse showed that child disclosure and parental monitoring partially mediated the role of self-esteem on risk behaviour as the effect of self-esteem decreased after adding disclosure (B = -.121*/.224***) and monitoring into model (B = -.140*/.224***).

4. Discussion and conclusion

Both, child disclosure and parental monitoring, were positively associated with self-esteem and mediated the associations between self-esteem and risk behaviour. Therefore, we may conclude that the quality of parent-child processes may increase self-esteem of young adolescents and thus protect adolescents from risk behaviour.

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THE RELATIONSHIP BETWEEN FLEXIBILITY-ENHANCING TRAINING PRACTICES AND EMPLOYEE BEHAVIOR

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Abstract

Recently, studies on industry training and education have asserted the importance of developing individuals with a greater flexibility within the work organizations. This is due largely to the fact that organizations across the globe are now exposed to survive in hugely uncertain and unpredictable market situations, resulting in greater demands of human capitals who are capable of flexibly adjusting to the dynamically changing work environments. The present study, therefore, sheds lights on documenting the effectiveness of the flexibility-enhancing training and development (FETD) practices in the industry setting. In particular, following the perspective of a person-environment fit, the study has developed a model wherein employees' person-job (P-J) fit mediates the relationship between an organization's FETD practices and employees' in-role and extra-role job performance. Using both organizational- and individual-level data collected from employees working for privately-owned companies at two different time points, this study explored significant cross-level, cross-lagged effects of an organization's FETD practices on employees' job performance via their perceptions of P-J fit. Findings are used to discuss the importance of firms' practicing FETD practices to foster both organizational and individual environmental adaptations and performance. Limitations and the directions of the study are also argued.

Keywords: Training and development practices, flexibility, person-job fit, employee performance.

HOW DO CHILDREN READ PARENTS' MINDS?

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Abstract

Ames & Mason (2012, for review) argued that we read others' minds based on others' behaviour and our own minds. On the basis of the argument, this study examined whether children infer their parents' attitudes towards their spouses based on their parents' emotional expressions and disposition as well as their own attitudes towards their parents. The research was conducted by way of a survey among 335 undergraduates. It required participants to respond to questions about their parents from the perspective of a child. The hypothesis was tested by analysing 199 answers from participants whose parents were married couples and all lived together. The results indicated that children read their parents' attitudes towards their spouses based on their parents' emotional expressions. Moreover, some variations were observed with regard to gender differences between children and parents. While sons did not decipher their mothers' minds by their mothers' disposition, daughters did. While children inferred their mothers' minds by projecting their own minds, they did not infer their fathers' minds in the same manner. A future study including an examination of children's perceived similarity with their parents, perspective taking of their parents as well as the self–other overlap between children and parents could be useful.

Keywords: Mind reading, family relationships.

1. Introduction

Ames & Mason (2012) define mind reading as the everyday inferential act of a perceiver ascribing mental states such as intentions, beliefs, desires, and feelings to others. They reviewed previous studies on mind reading and showed that we read others' minds through their behaviour and by projecting ourselves. On the other hand, Reis, Collins & Berscheid (2000) reviewed studies on relationship and advocated for the importance of the system perspective, according to which, each relationship is nested in a system and influences each other. The present study examines how children decipher parents' attitudes towards their spouses. Specifically, the following hypothesis is examined: children infer their parents' attitudes towards their spouses based on their parents' emotional expressions and dispositions and their own attitudes towards their parents.

2. Methods

The research was conducted by way of a survey among 335 undergraduates. The participants completed self-report questionnaires on their parents from the perspective of children. The hypothesis was tested using the results of the analysis of 199 answers from participants whose parents were married couples and all lived together.

2.1. Variables

Hypothesis were formed on 'Children's perceptions of their parents' attitudes towards their spouses', 'Children's perceptions of their parents' attitudes towards their children' and 'Children's attitudes towards their parents'. This study assessed these attitudes using a Japanese version of the Positive Affect Index (PAI; Bengtson & Schrader, 1982). This measure 'assesses sentiment or positive affect among family members as it is perceived and reported by family members' (Bengtson & Schrader, 1982). Respondents registered their attitudes on a 6-point scale ranging from 1 (does not describe very well) to 6 (does describe very well). After reliability was checked, the scores were averaged on five items, ranging from 1 to 6, with higher scores indicating that respondents perceived more positive attitudes.

'Children's perceptions of their parents' expressiveness towards their spouses (negative/positive)' were assessed by a Japanese version of Self Expressiveness in the Family

Questionnaire (SEFQ; Halberstadt, Cassidy, Stifter, Parke & Fox, 1995; Tanaka, 2009). Respondents registered their perceptions on a 6-point scale ranging from 1 (not at all frequently) to 6 (very frequently). After reliability was checked, the scores were averaged on seven items, which ranged from 1 to 6, with higher scores indicating that respondents perceived that their parents expressed more.

3. Results

3.1. Respondents
The mean age of respondents was 18.35 ($SD = 0.48$) years old. Sons comprised 37.17% (= 71) of the analysis target and the daughters were 62.83% (= 120).

3.2. Descriptive statistics
Table 1 shows the means and standard deviations for each variable.

Table 1. Descriptive statistics.

	Mean (SD)		
	All	Sons	Daughters
N	191	71	120
Children's Perceptions of Mothers' Attitudes towards their Fathers	3.54(1.05)	3.65(0.89)	3.48(1.14)
Mothers' Expressiveness towards their Fathers Negative	2.37(1.11)	2.03(0.95)	2.57(1.16)
Mothers' Expressiveness towards their Fathers Positive	2.63(1.09)	2.72(0.96)	2.58(1.17)
Mothers' Attitudes towards their Children	3.66(0.86)	3.66(0.75)	3.66(0.92)
Children's Attitudes towards their Fathers	3.55(0.95)	3.68(0.81)	3.47(1.01)
Children's Perceptions of their Fathers' Attitudes towards their Mothers	3.49(1.12)	3.75(0.82)	3.34(1.24)
Fathers' Expressiveness towards their Mothers Negative	2.20(1.10)	1.89(1.05)	2.37(1.10)
Fathers' Expressiveness towards their Mothers Positive	2.59(1.16)	2.83(0.92)	2.46(1.26)
Fathers' Attitudes towards their Children	3.38(0.95)	3.52(0.83)	3.30(1.01)
Children's Attitudes towards their Mothers	3.89(0.82)	3.84(0.72)	3.92(0.87)

3.3. Multiple regression analysis
This study used multiple regression analyses to examine the hypotheses. Table 2 shows how children read their mothers' attitudes towards their fathers. Table 3 shows how children read their fathers' attitudes towards their mothers.

Both of these sets of results indicated that children inferred their parents' attitudes towards their spouses based on their parents' emotional expressions and daughters additionally inferred their parents' attitudes based on their parents' dispositions (Table 2 and 3). While sons did not infer their mothers' attitudes based on their mothers' dispositions, daughters did infer their mothers' attitudes based on their mothers' dispositions (Table 2). Both sons and daughters inferred their fathers' attitudes based on their fathers' dispositions (Table 3). While children inferred their mothers' attitudes by projecting their own attitudes (Table 2), they did not infer their fathers' attitudes in the same manner (Table 3).

4. Discussion

This study showed that sons did not read their mothers' minds based on their mothers' dispositions. This suggests that sons read their mothers' minds according to the situations, which may be because mothers' attitudes towards the fathers were clearly different from their attitudes towards their sons. Furthermore, children did not read their fathers' minds by projecting their own minds. This may be because children do not perceive a similarity between themselves and their fathers nor do they take their

fathers' perspectives (Ames, 2004); further, children's self–representations do not overlap with their parents' (Davis, Conklin, Smith & Luce, 1996). In the future, studies incorporating such variables will clarify the reason.

Table 2. Mothers' attitudes towards their fathers.

Dependent Variable: Children's Perceptions of their Mothers' Attitudes towards their Fathers			
	β		
	All	Sons	Daughters
N	191	71	120
Mothers' Expressiveness towards their Fathers Negative	-.20***	-.25**	-.18**
Mothers' Expressiveness towards their Fathers Positive	.50***	.41***	.55***
Mothers' Attitudes towards their Children	.13**	.05	.14**
Children's Attitudes towards their Fathers	.29***	.39***	.25***
R^2	.71	.60	.76

* p < .05, ** p < .01, *** p < .001

Table 3. Fathers' attitudes towards their mothers.

Dependent Variable: Children's Perceptions of their Fathers' Attitudes towards their Mothers			
	β		
	All	Sons	Daughters
N	191	71	120
Fathers' Expressiveness towards their Mothers Negative	-.26***	-.31**	-.22***
Fathers' Expressiveness towards their Mothers Positive	.48***	.33**	.53***
Fathers' Attitudes towards their Children	.30***	.35**	.27***
Children's Attitudes towards their Mothers	.07†	.11	.08
R^2	.74	.53	.79

* p < .05, ** p < .01, *** p < .001

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HOW DO WE READ NOVEL AND CONVENTIONAL METAPHORS? – AN EYE-TRACKING STUDY

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Abstract

1. Background. A large body of research has shown that people can identify conventional metaphors (frequently in everyday conversations) faster than novel ones (used in poetry). Until now, there haven't been any comparisons between processing of novel (NM) and conventional metaphors (CM) by means of the analysis of eye movements while reading.
2. Methods. The aim of the present study was to examine eye movements whiles reading different types of metaphors. For this purpose, we used Wisława Szymborska poem (YEAR). We focused on cognitive processing of NM (e.g., Bushes bend beneath the weight of proofs) and CM (e.g., that lawyer is like a shark, love is a flower). Participants (45 students) read a short text with the metaphors while their eye movements are recorded (SMI eye tracker).
3. Results. We analyzed percent of fixation time spent on pairs of metaphors: novel vs. conventional. We found that participants spent more time reading conventional vs novel metaphors. The result is not consistent with studies that show that conventional metaphors are read with less effort than novel ones. We state, that poetic metaphor is a different type of metaphor is an example of novel metaphor. Moreover, it can be specific.
4. Home. Poetic metaphor can be understood by every of us, because role of this kind of novel metaphor is to show us world from another angle but in the way clear for everybody.

Keywords: Metaphors, eye-tracking, novel, reading.

AGE-DEPENDENT ENHANCEMENT OF ADVANTAGEOUS DECISIONS IN THE IOWA GAMBLING TASK AFTER TRAINING OF SELECTIVE ATTENTION

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Abstract

Aging is associated with a decline in efficient and advantageous decision-making (Fein et al., 2007). In this project we tested whether different forms of cognitive training can improve decision making in the elderly. Young and old healthy subjects received either a one-week filter training (FT), a memory training (MT) or no training (CG). While MT subjects performed a delayed match-to-sample task, FT participants trained to inhibit irrelevant distractors while comparing simultaneously presented stimulus arrays. In addition to the training, we measured the IGT gains on each day.
We observed an increase in the amount of gained money in the FT group, especially in the elderly, but not in the other groups. Detailed analysis revealed that older FT subjects were less prone to the so-called prominent deck B phenomenon that has been associated with impaired cognitive abilities in aging. In sum, selective attention training seems the superior training to improve decision-making, especially in the elderly.

Keywords: Decision-making, selective attention training, iowa gambling task, aging, prominent deck B phenomenon.

1. Introduction

Decision-making is important for everyday matters and relates to other cognitive abilities, including executive functions, intelligence and working memory (Bechara et al., 1998). The ability to make advantageous decisions decreases with age (Fein et al., 2007), but important decisions have to be made by seniors, too, e.g. regarding financial matters, medical care or retirement options. We propose that interventional approaches must focus on training of core functions instead of learning to use strategies which makes it difficult to generalize training effects on higher cognitive functions. In particular a tool is needed to induce transfer effects on behavior in everyday living. A core function that is trainable is working memory capacity, but many studies report missing transfer effects on untrained functions (Morrison & Chein, 2011). Another target relating to working memory is the ability to filter out irrelevant distractors. We were able to show that filter training can increase working memory in young adults (Schmicker et al., 2016) as well as decision-making (Schmicker et al., 2017) as a far transfer effect. We adapted the paradigm for elderly people and repeated the training study to show that filter training is also effective in older adults.

2. Methods

29 young (20-31 years) and 31 elderly (60-75 years) healthy participants took part in two consecutive studies. They either received a filter training (FT, young = 15, old = 12), a memory training (MT, young = 14, old = 10) or no training (CG, old = 9). The MT task was to memorize a display of bars presented in succession and to decide if a bar direction had changed in the second presentation. FT subjects had to indicate by button press whether the direction of bars between two simultaneously presented displays (left and right) matched or not. In FT targets were embedded within irrelevant distractors of a deviant color. We added an elderly control group to ensure that transfer effects on decision-making are due to the special training regimens. Old adults underwent a modified training

paradigm with an individual adaption to the performance level to maximize training effects. Both groups trained for five days.

On each training day young and old subjects performed the Iowa Gambling Task (IGT), where participants gain or lose money by selecting cards from one of four decks for 100 times. They can gain or lose money by developing advantageous or disadvantageous decision strategies. The card decks, amount of gains and losses and the overall gain were presented on a screen. The control group (only elderly subjects) underwent the IGT five consecutive times on one day. For young subjects the overall net gain was measured, for the elderly card selections were measured in detail.

3. Results

All subjects within each training group increased their performance in the trained task. Young and old adults increased their IGT net gains significantly over the week, but only when they had received the filter training. Especially the elderly FT group showed strongly enhanced decisions. In contrast, both young and old MT subjects did not show any statistical significant increase in gained money from day one to day five. Moreover, the old CG subjects did not change the IGT performance from the first to the last session. Detailed analyses of card selections indicate that old adults were able to draw less cards from the bad decks (A & B, high gain, but frequent/ high loss) and shifted their deck selection to good decks (C & D, small gain, but infrequent/small loss). Old adults especially selected cards associated with high gains and rare losses, which are nevertheless a disadvantageous choice as the net outcome is negative. We found a decreased deck B selection.

4. Conclusion

We found better decision-making in young, but even more so in old adults after training of selective attention. The finding of decreased deck B selections in elderly is of special importance, because this disadvantageous deck is known to be preferred in older adults whose cognitive functions have begun to decline (Beitz et al., 2014; Steingroever et al., 2013). Selective attention can be considered as a form of top-down control which leads to more advantageous card selections. In the context of enhancing efficiency in real-life decision-making this finding can open new avenues for cognitive training approaches. In sum, attention training seems the superior training to improve decision-making, especially in the elderly.

Figure 1. IGT gains in elderly subjects.
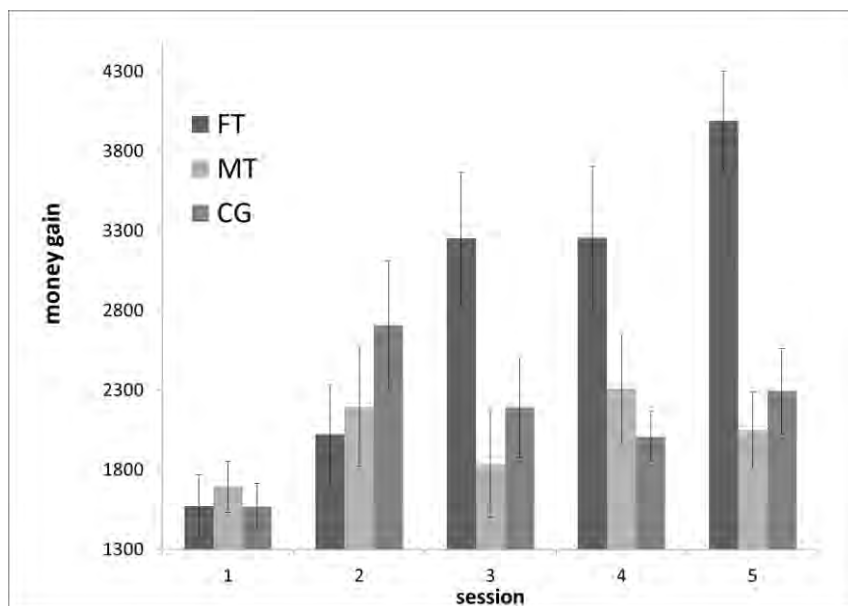
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CONSCIOUS SELF-REGULATION AND EXECUTIVE FUNCTIONS: METACOGNITIVE AND COGNITIVE LEVELS OF LEARNING ACTIVITY REGULATION

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Abstract

In the present article, we investigate relationships between executive functions (EFs) and conscious self-regulation (SR). We hypostasize that learning activity SR system develops in a hierarchical manner, such that the more complex forms of behavior such as concious self-regulation depend on EFs skills. We used data about students' regulatory characteristics collected with Self-Regulation Profile of Learning Activity Questionnaire" (SRPLAQ; Morosanova and Bondarenko, 2015) and computer-based tests of EFs. The obtained results (N=187 middle school students) allow us to state that we revealed relationships between SR processes (Goal planning, Modelling of significant conditions, Programming of actions, Results evaluation) and variables of EFs (inhibition, task switching, and working memory updating). The data obtained in regression analysis showed the specific mechanisms of EFs' influence on SR. The hypothesis that SR and EFs relate to each other as a metacognitive m cognitive levels of learning activity regulation is partially confirmed.

Keywords: Conscious self-regulation, executive functions, adolescents.

1. Introduction

The study examines the problem of learning activity self-regulation. Researchers suggested self-regulation (SR) as an essential factor of students' academic achievements (Boekaerts, Pintrich and Zeidner, 2005; Zimmerman and Schunk, 2001). General level of concious SR explains from 18 to 30% of academic achievements variance (Morosanova, Fomina, Kovas and Bogdanova, 2016). However, we found out that the influence of conscious SR on academic achievement temporarily declines during middle school, thus lowering academic motivation and progress. Since EFs suppress undesirable behavior, we suggested that disclosing the specific effects of EFs on SR can be the key to maintaining an optimal level of academic success.

We determine SR of learning activity as a system of self-conscious mental activity, which is being used to set educational goals and achieve results corresponding to these objectives. This process is implemented through a multi-level system, which has a certain structure of interrelated components. Individual students' SR can be characterized by a SR profile, including indicators of cognitive functional processes: Goal planning, Modelling of significant conditions, Programming of actions, Results evaluation and instrumental personal-regulatory features: Flexibility, Independence, Reliability, Responsibility, etc. (Morosanova, 2013).

EFs represent a set of cognitive control processes that mediate attention and memory. EFs are heavily involved in planning, decision making, error correction, troubleshooting, unlearned actions and responses, dealing with dangerous or challenging situations, and overcoming strong habitual responses or temptations (Norman and Shallice, 2000). Widely used is a typology of basic EFs, proposed by A. Miyake with colleagues, which includes inhibition, task switching, and working memory updating (Miyake, Friedman and Emerson, 2000).

Based on analysis of the literature we hypothesized that EFs underlie the processes of conscious SR and are related to each other as cognitive and metacognitive levels of regulation. The results of theoretical and empirical studies allow us to suggest that conscious SR may act as a metacognitive factor of learning goals achieving, since it mobilizes students' cognitive and personal resources. Our results comply with international studies of metacognition, SR and SR learning. They state that meta-cognition is not just thinking about thinking, but also thinking about one's own cognitive processes in a self-reflective manner (Flavell, 1979; Brown, 1987; Zimmerman and Moylan, 2009; Winne, 1996).

2. Objectives

The purpose of the study was to reveal relationships between SR cognitive processes and variables of EFs and to assess the EFs' impact on middle school students' SR of learning activity.

3. Methods

Participants. The sample group consisted of 189 11-14 year old students of Russian secondary schools (grades 6 and 8): 6th grade (N = 83, M = 11.8, σ = 0.37), 8th grade (N = 106, M = 13.8, σ = 0.39).

Measures. The level of SR development, stylistic features of SR processes, personality and regulatory characteristics was assessed by "Self-Regulation Profile of Learning Activity Questionnaire" (SRPLAQ; Morosanova and Bondarenko, 2015) including the sub-scales: Planning, Modelling, Programming, Results Evaluation, Flexibility, Independence, Responsibility, Reliability, Social desirability and an integrative scale - General level of SR.

Executive functions. 1. Eriksen flanker task (EFTs) (Eriksen and Eriksen, 1974) is used to assess sensory interference inhibition. The task is to identify central stimulus while ignoring periphery stimuli. 2. Letter-number task with predictable switching (AASs) (Rogers and Monsell, 1995) is used to assess cognitive flexibility based on switch cost computation. The task is to identify numbers as odd or even and identify letters as consonants or vowels in a certain order 3. The N-back task (NB2s) (Owen et al, 2005) is used to assess the effectiveness of working memory updating. The task is to indicate whether a presented stimulus matches a stimulus from two trials ago via pressing a button.

4. Results and discussion

Correlation analysis showed that the processes of Planning and Results evaluation interrelated with all the three EFs (from r= − .19, ρ ≤ .05 to r= .25, ρ ≤ .01). Planning is the most complicated component of SR. It performs system-forming function in achieving the accepted goal. Planning relates to the ability to operate with visual-figurative or abstract forms in mental goal representation. Miyake considers this ability to be an experimental indicator of regulatory function of planning behavior (Miyake et al., 2000). Results Evaluation invariably makes the most significant contribution to goals achieving, depending on the ability of students to compare information about the achieved results with subjectively accepted criteria of learning activities success. It is, in fact, a feedback concerning the results of actions taken to achieve learning goals. Studies confirmed that feedback enhances academic achievement, supports academic motivation (Wigfield, Klauda and Cambria, 2011) and self-regulation (Zimmerman and Moylan, 2009). The process of Modelling is connected with the task switching function (from r= − .25, ρ ≤ .01 to r= .27, ρ ≤ .01). We found that rescue workers show the highest levels of Modelling, since their job involves high risk and taking action in extraordinary incidents (Morocanova and Kondratyuk, 2012). Programming is connected with task switching and inhibition (from r= − .29, ρ ≤ .01 to r= .19, ρ ≤ .01). This process defines the aspects and sequence of actions taken to achieve goals. High levels of this process indicate that an individual is able to work out a detailed plan to achieve his goals, to think through the course of actions and react according to the situation.

We used the results of correlation analysis to test whether the variables of EFs are the basic level of conscious self-regulation (Table 1).

Table 1. Regression analysis on SR processes and EFs variables.

Variable (SR)	ΔR²	Variables (EFs)	β	SE
Planning (n=78)	.13***	AASS_PESm-r	-.27**	.11
		EFT_Benefit-r	-.22*	.11
		NB_TPMiss-r	-.20*	.11
Modeling (n=87)	.09***	AASS_PESm-r	-.34***	.12

* ρ ≤ .05, ** ρ ≤ .01, *** ρ ≤ .001. AASS_PESm-r - Post-error slowing, multiplicative = RT correct after not correct / RT correct after correct, AASS_Prod_av-r - The average productivity = Tempo x Accuracy, EFT_Benefit-r - Productivity benefit in congruent trials regarding incongruent, NB_TPMiss-r - Tempo of Missing.

Regression analysis showed that all the three EFs have an impact on the process of Planning. The level of Planning depends on the level of Post-error slowing (AASs), number of correct answers when switching from letters to numbers, and speed of pressing the "skip wrong answer" button. The level of Modeling depends on level of Post-error slowing (AASs). We were not able to carry out regression models for the processes of Programming and Results evaluation. This issue requires further study.

5. Conclusions

The data obtained in our study showed the specific mechanisms of EF's influence on SR. The SR process of Planning depends on variables of working memory, inhibition of sensory interference and motor impulses, and task switching. Process of Modelling depends on task switching. The results of the study confirm the idea that learning activity SR system develops in a hierarchical manner, such that the more complex forms of behavior, such as concious self-regulation, depend on EFs skills. The study showed that relationships between EFs and SR are especially important during middle school, whereas EF skills could facilitate goal directed behaviors.

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ANALYSIS OF MATHEMATICAL ABILITIES OF CHILDREN WITH LOW ACHIEVEMENT IN MATHEMATICS

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Abstract

To understand the difficulties of students with mathematics, we must determine the cognitive functioning underlying the diversity of mathematical processes. The paper deals with the analysis of mathematical abilities of pupils who achieve low results in mathematics in the long run. The research sample consisted of 82 children (38 boys and 44 girls) of the fourth grade of elementary school aged 11 (SD=1,17). None of the pupils had a diagnosis of any specific developmental disorders of scholastic skills or mental retardation. For data collection were used Test of cognitive abilities (Slovak version, originally by Thorndike, Hagen, 1986) – mathematical battery and Neuropsychological Test Battery for Number Processing and Calculation in Children (ZAREKI) (Slovak version, originally by von Aster, 2001). The results of the present research have shown decrease of mathematical performance below average compared to the age standard. Our findings have shown the cognitive deficits of arithmetic abilities in children is not unitary. Overall, the most notable deficiencies were reflected in the memory factors as well as elementary mathematical operations. From gender differences, it has been shown that in overall reduced performance in mathematics, girls are more involved in deficiencies in producing numerals in the correct order and comparing relations between quantities.

Keywords: Mathematical abilities, low achievement, ZAREKI (Neuropsychological battery for number processing and calculation in children.

1. Introduction

Mathematics plays a significant role in practical everyday life but also as a fundamental component for further education not only in technical subjects. Mathematics is one of the basic subjects the child has been experiencing since the beginning of school attendance. A good mastery of mathematics is important for success in the next acquisition of knowledge and successful living. Not all children perform sufficiently in maths though. The problem of low achieving pupils is one of the most challenging problems that children, parents and teachers have to face. Failure is not only frustrating to the students, parents and teachers; its effects are equally severe for the society (Aremu, 2000). Consequently, this may lead to frequent repetition of failure. Poor performance can be described as any performance that is adjudged by the examiner as falling below desired, expected standard and/or the pupil's low mark (Asikhia, 2010). In order to improve performance, it is essential to know the factors that affect it. In the literature we can find many causes of poor performance. They can be categorized into four areas (Jameel, & Alib, 2016, Mbugua et al., 2012): 1. State - educational system, educational policy, funding of educational sector, 2. School - location and physical buildings, interpersonal relationship among the school personnel, teacher characteristics, 3. Family - education of parents, socio-economic status, parenting style 4. Child - behaviour, motivation, attitude. Efficient learning of maths requires learning and mastering of various skills, and thus it also requires several basic cognitive functions (perceptual, language, spatial, memory) (Labrell et al., 2016)

Mathematical skills can be categorised in many ways (von Aster, M. G. & Shalev, R. S. 2007). One way is to divide the spectrum of skills roughly into classes like: 1. counting - to produce numerals in the correct order and to move fluently through number sequences, 2. arithmetic calculation skills - means the ability to calculate (quantities and changes), and to compare relations between quantities, and 3. relational concepts - to understand concepts that describe relations (e.g., more, larger, behind, later). Deficiencies in these mathematical abilities can greatly affect pupil's performance.

1.1. Purpose of the present study

This research focuses on identifying the mathematical abilities of pupils who have been failing to achieve the expected performance in mathematics for a long time. The aim is also to identify gender differences. These are standard primary school pupils at the end of the first stage of education who were not diagnosed with mental retardation and/or dyscalculia.

2. Method

2.1. Participants

The population of this study consists of 82 children (38 boys and 44 girls) of the fourth grade at primary school aged 11 (SD=1,17) and coming from the East Slovak region. They were primarily identified as low-grade respondents on the basis of marks scored in maths (worse than 3 on a 5-degree scale). The sample was selected based on availability. All participants and their parents expressed their consent to participate in the research.

2.2. Materials

For data collection the following tests were used:

Test of cognitive abilities (Slovak version, originally by Thorndike, Hagen, 1986) – mathematical battery – for objectivizing the level of mathematical abilities, and Neuropsychological Test Battery for Number Processing and Calculation in Children (ZAREKI) (Slovak version, originally by von Aster, 2001) which consists of 11 subtests specialized in mathematical skills. Children were evaluated individually in their own schools in a quiet room in two 30-minute sessions.

2.3. Procedures and Statistical Analyses

Children were evaluated individually in their own schools in a quiet room in two 30-minute sessions. The raw score (the number of correct answers) in both tests was converted to a scaled score and interpreted in accordance with the age standards for the pupil population. To detect gender differences, raw scores were used. The SPSS version 20 was used for statistic processing. The result was brought by descriptive data. To identify gender differences, nonparametric Mann-Whitney U-test was used due to the data distribution.

3. Results

Results of the Test of cognitive abilities showed an average raw score of 24 points (SD = 9.5), which, compared to age standards, indicates the result at the below average level (the deviation score of 80 points). In this test the girls achieved worse results than boys (Mann-Whitney U-test = 462, p = 0.001).

The average score of ZAREKI represents 79 (SD=20,5) points of raw score, indicating reduced mathematical abilities under two standard deviations up to 60% of examined children (based on frequency data analysis). Analysis of results at the level of subtests showed the most notable deficiencies in 4 of 11 subtests, namely: counting (simple addition and subtraction), comparison of the oral and written forms of number pairs, contextual estimation and mathematical word problems. Gender differences were demonstrated in three subtests: oral (Mann-Whitney U-test = 459, p = 0.00), written comparison of number pair (Mann-Whitney U-test = 491, p = 0.02) and backward counting (Mann-Whitney U-test = 531, p = 0.02). The girls scored worse.

4. Conclusion

The results of the present research have shown that pupils with below average grades in maths perform objectively worse in maths (mathematical battery of the Test of cognitive abilities) compared to the age standard. The analysis of individual mathematical abilities assessed by Neuropsychological Test Battery for Number Processing and Calculation in Children (ZAREKI) revealed that up to 60% of children have weakened abilities that are necessary for adequate math performance. Subtests with the weakest performance point to deficiencies in memory abilities (working memory) as well as low automation of elementary mathematical operations. It is also worth pointing out the weak sensitivity of teachers and parents to learning difficulties. The results suggest that children in the research sample show the signs of developmental dyscalculia, which has not been diagnosed yet. The limit of research is a small sample and therefore the results cannot be generalized.

Acknowledgements

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Virtual Presentations

PHENOMENOLOGICAL RESEARCH ON NURSES WITH PEDIATRIC CLIENT DIAGNOSED WITH ACUTE LYMPHOBLASTIC LEUKEMIA

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Abstract

This phenomenological study investigated, evaluated, and interpreted the nurses' experiences towards handling pediatric patients who are diagnosed with Acute Lymphoblastic Leukemia (ALL) and how the nurses dealt on difficult situations, tasks and emotions that are within the scope of the study. The main source of data came primarily from the responses out of an interview of a total of 10 Nurses working at WCMC with experience in handling patient diagnosed with ALL. Findings from the study revealed the experiences of the nurses in handling pediatric client diagnosed with Acute Lymphoblastic Leukemia (ALL) in terms of the three categories; difficult situations (experiences), tasks, and emotions. In terms of difficult situations, the strategies that most of the respondents used aside from the traditional way (book-based) of getting their client's trust and cooperation is by the way of traditional practices based on the previous experience they've had upon their exposure to leukemic patients. One of the main benefits of utilizing their traditional ways of practice is the ability to pass on their knowledge onto both the staff and the families. In terms of tasks of the respondents, majority of them facilitate communication toward the family and relatives by means of understanding, asserting, and patience. Families should be encouraged to share their thoughts with them whether it be illness-related problems about the client or non-illness related problems that is occurring within the family. In terms of emotions of the respondents, each of them has their own way of expressing and handling emotions by means of coping mechanisms within the nurse-client relationship including the family. In order to provide effective care, it is important for the nurse to understand and analyze these emotions that come about throughout the diagnosis. Trust and cooperation were established after dealing with patients and family and health education was given to enable patients to handle their difficulty and different situations. Patients were given therapeutic communication that encouraged them to verbalize their feelings clearly and openly understand, accept, and dealt with patience and assertiveness. The nurses were able to assist and encourage the patients and family in the development of their own coping mechanisms to deal with their emotions.

Keywords: Pediatric client, acute lymphoblastic leukemia, difficult situations, tasks, emotions.

1. Introduction

Worldwide, millions of people die annually due to cancer, the number of cases doubled between 1975 and 2000, and should duplicate again between 2000 and 2020; cancer may kill 17 million people against the 7.6 million deaths in 2007. Among children, the pediatric cancer, in most cases, leukemia, represents between 0.5% and 3% of all tumors in most populations (Bueno, P.C., Nieves,2011).

Cancer is one of the leading causes of death worldwide, being presented as a major public health problem. In 2005, childhood cancer, was responsible for 8% of all the deaths in children and adolescents (1-19years old) in Brazil, and is considered the leading cause of death by disease in this age group. The diagnosis of cancer in a child implies psychosocial and cultural repercussions in his life and in the lives of his family (Santos, L.F.,Marinho,2011).

Leukemia is a neoplastic proliferation or accumulation of hematopoietic cells with or without involvement of the peripheral blood. In most cases, the leukemic cell spills over the blood, where it can be seen in large numbers. These cells may also infiltrate the liver, spleen, lymph nodes, and other tissues (Silva, G.C.,Filger,2006).

Acute Lymphoblastic Leukemia (ALL) is the most common type of childhood cancer, being a third of all malignant neoplasms of the child (Fonseca, D.O., and Tavares, C. C.,2010).

In the context of pediatric oncology, when cancer is diagnosed in a child, the dynamics of your family goes through several changes. An intense suffering and fear are evidenced, due to the changes and deprivation experienced by the child's life and his family. These are required to adapt to a new routine, in which the disease with their disorders and stigma, become part of the family and social quotidian. (Oliveria, R.R., Santos, L.F.,2010).

Hospitalization of the child with leukemia has different characteristics from others in a hospital unit. The most significant is the possibility of a poor prognosis, chronicity of illness, duration and frequent reiterations, physical, cultural and psychological trauma, aggressive therapy, the change in self-image, high mortality, yet adding familiar problems related to the diagnosis (Pedrosa, F., and Lins, M., 2002). It is possible to observe that the family of a child living with leukemia ends up experiencing, with the affected child, the whole process of coping with the disease and the daily challenges of caring for a child that was once healthy, and that from one moment to another, finds himself submitted to diverse physical, social, physiological, and psychological changes. The life's routine of the child and his family is completely changed by the appearance of a serious disease such as leukemia, outlining a process of gradual adaptation to new situations that the disease imposes, demanding efforts in intensity and extension (Klassman, J., Kochia, K.R.A., Furukuwa, T.S., Higarashi, I.H., Sonia, M., 2008 as cited by Filho, R. F, Seabra, L.C.S, Oliveira, K.C.P.N., 2014).

Nursing constitutes an important component of the health care team that provides assistance to hospitalized patients, since it is the nurse who remains 24 hours a day in the hospital and who maintains most contact with the patient. Being a nurse who is constantly present with the hospitalized patient, could establish a relationship to provide care that the work in nursing demands, in addition to knowledge and technical skills, human skills, surpassing the superficiality of a consultation (Prearo, C., Goncalves, L.S., Hinhando, M.B., Menezes, S.L., 2011 as cited by Filho, R. F, Seabra, L.C.S, Oliveira, K.C.P.N., 2014).

The family of the child with cancer, specifically leukemia, thus, plays an important role in the success of this type of initiative. It is necessary, then that the guidelines are understandable to the caregiver and also to the patient whenever possible. To do so, the supervisor, in this case the nurse should be sensitive to assess the cognitive and emotional conditions of the caregiver, using appropriate language and methodology in order to facilitate the understanding of the specific contents((Klassman, J., Kochia, K.R.A., Furukuwa, T.S., Higarashi, I.H., Sonia, M., 2008 as cited by Filho, R. F, Seabra, L.C.S, Oliveira, K.C.P.N., 2014).

In the study, the researchers want to know the experiences of the nurses in handling a patient diagnosed with ALL. The researchers aim is to interpret the nurse experience and coping methods in threating a child. Different nurses have different ways in coping with the stress and taking care of patients. The researchers would want to know the experiences and methods that are used to cope with difficulties with the illness especially in the end of the life stages of the patient.

Parents who have children diagnosed with ALL are subjected to treatments. These treatments depend on the willingness and the strength of each individual. Nurses on the other hand, care for the child, the nurse must be prepared to cope with the traumatic emotional implications of this fact (emotion). The nurses must understand that among the scientific and professional role that are currently going through with treatment is far from significant, there is much more the nurses can do for the parents and the children during the trying months (difficult situation). The nurses, of course, will assist in the diagnostic and therapeutic procedures, giving medication, providing meticulous nursing care that a child with ALL needs (tasks). The undertaking of all these tasks is the nurse's most important responsibility to provide emotional support urgently to the parents and the child. Faced with the eventual loss of physical health on the child and also realizing that the nurse must give attention to the parent's mental health. Nurse's success depends on their ability to establish successful interpersonal relationships with the patient and the family. Empathy, the ability to put oneself into another person's position is difficult to achieve in caring for a child with ALL. To do this effectively, the nurses must work through their own feelings and tension about death and bereavement, by doing so will they be free from sensitivity of the patient dying and the patient's family. The threatened loss of a child arouses anxiety and grief in parents and the patients. The research will help understand the emotional tension through the experiences and the coping methods the nurses use.

2. Methods

2.1. Research design

The research gathered Registered Nurses who are experienced in handling pediatric patients diagnosed with Acute Lymphoblastic Leukemia (ALL). Qualitative Research was the design used specifically phenomenological approach, which involves long, in-depth interviews with subjects.

2.2. Population and sampling

The researchers targeted sample representative of 10 nurses. The selected nurses have experienced in handling pediatric patients diagnosed with Acute Lymphocytic Leukemia (ALL). Purposive Sampling was used. This sampling technique is a non –probability technique that involves the conscious selection by the researcher of certain people to include in a study. Participants are selected because they have particular characteristics that are of interest to the researcher.

2.3. Respondents of the study

The respondents of the study are the nurses working in World City Medical Center who have two to three years experiences in handling pediatric patients of about one year old to nine year old diagnosed with Acute Lymphoblastic Leukemia (ALL).

2.4. Research instrument

The researchers used a structured interview questions on the three categories chosen for analysis namely: difficult situations, tasks, and emotions. Structured interview is a qualitative research method to ensure that each interview is presented with exactly the same questions in the same order.

2.5. Data analysis

The descriptions were analyzed using the method of qualitative analysis of the phenomenon, situated in two moments. First, there was a complete reading of the questions in the questionnaire, in order to gain a better understanding of the interviewers. At this stage of the analysis, the researchers tried to approach them, seeking a better reliability of the speeches that describe the experience lived by the nurses taking care of children with ALL (Funceca, R. C. V., Zagonel, I. P. S., and Cordeiro, M. L. as cited by Filho, R. F, Seabra, L.C.S, Oliveira, K.C.P.N., 2014). And on the second moment, a non-participant observation of nursing care provided through categories of analysis was made.

The categories chosen for analysis to help understand the emotional tension through the experiences and the coping methods the nurses use were, Difficult situations, tasks, and emotions.

(1) Difficult Situations

The situations experienced by the clients and it's family and the nurses during the regimen of care. The examples of these are the following: (1) difficult patients, (2) difficult to communicate to clients and its immediate relative, (3) difficulty in performing a task, (4) responding to the needs of a client in pain or dying patients.

(2) Tasks

The tasks described as the basic function of nurses toward their client which is it to take care clients diagnosed with ALL This would include giving therapeutic communication and basic nursing procedures.

(3) Emotions

The Emotions describe as the feelings of clients diagnosed with ALL undergoing treatment. This includes their reactions, emotions from procedures and treatments, their coping mechanisms from the different situations, and the use of their therapeutic relationship with their support system (families and friends) and their caregivers (doctors and nurses).

3. Results and Discussions

The categories of Difficult situations, Tasks, and Emotions allowed speeches that describe nursing care, coping mechanisms and interventions done by the nurses, what type of care, and how the family sees the everyday working process in a hospital setting.

Based on the analysis of their content and non- participant observation, it was possible to identify the following themes:

1. The Difficult Situations

Regarding the difficult situations in nursing care, in order to provide the very best care for the patient and the family it is important that the nurse works together cohesively and give the family a sense of trust and being cared for. Langton (2000) stated on Culling (1988) work that there needs to be a good communication and a concensus of information, it may be useful for a few key people to work with the family so they are able to develop rapport. Nevertheless, difficult situations were observed in some statements as described below, when asked questions about difficult situations.

Communicating with the family such as the parents with each treatment taking can establish the trust and rapport needed. Furthermore, proper explanation of the information as respondents 8 explains. Providing them with information before doing intervention.

Aside from the traditional method assessment, planning, intervention to the patient going beyond care can also help acquire the patients' trust. Respondent 3 responded that aside from the patients' condition asking about the patients' hobby and interest help build friendship.

With regards to understanding the family belief and culture, Respondent 9 claimed that adjusting to the families' religion and culture can help earn the patient's cooperation.

Intervention: Trust and cooperation were established after dealing with patients and family and health education was given to enable patients to handle their difficulty and different situations.

2. Tasks

In terms of tasks of the respondents, majority of them facilitate communication toward the family and relatives by means of understanding, asserting, and patience. Families should be encouraged to share their thoughts with them whether it be illness-related problems about the client or non-illness related problems that is occurring within the family.

According to Rorden and Taft (1990) believed that discharge planning process should be paralleled and remain supportive of an individual's progress through a continuum of care. once ab individual becomes ill and medical intervention is necessary, the discharge planning process should begin and continue until the individual is recovered and no longer requires medical input. In order for the individuals and their families to be well prepared for discharge, a great deal of information needs to be given. To begin with, the nurse needs to draw on all communication skill in order to build up a clear picture of how the discharge event is perceived by the family. Once this is established, the nurse will then able to provide the individual and the family with the correct amount of information for them to be able to understand (Hamilton and Vessey,1993).

Intervention: Patients were given therapeutic communication that encouraged them to verbalize their feelings clearly and openly understand, accept, and dealt with patience and assertiveness.

3. Emotions

Regarding Emotions, most of the nurses have their own way or various ways of expressing and handling emotions. They experience reactions similar to the responses of family members at diagnosis. An understanding of these reactions may help nurses provide care by protecting them from the emotional impact of the event, others may interfere with the establishment of a therapeutic relationship with the family may helped to cope successfully by several means such as education and support. Although distancing may help the nurse put things in perspective, it can make it more difficult for them to understand the families perspective and needs, therefore knowledge about possible effects and how to cope may be beneficial, self-awareness and setting personal limits is important. Knowledge about handling family functioning may help by developing competence particularly in the area of communication. Competence is known to be an effective strategy in enabling nurses to cope and improve the quality of car (Faulkner,1995).

Intervention: The nurses were able to assist and encourage the patients and family in the development of their own coping mechanisms to deal with their emotions.

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40 HEALTHCARE PROFESSIONALS AND PATIENTS ABOUT AN AUTONOMY SUPPORTIVE ENVIRONMENT IN FRENCH GERIATRIC CARE SERVICES: WHAT THEY SAY?

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Abstract

Statement of the Problem: Based on Self-Determination Theory (SDT; Deci & Ryan, 1985), autonomy support appears to be a key factor for patients in geriatric care services (GCS) for the satisfaction of the three basic psychological needs of autonomy, competence, and relatedness (Souesme et al., 2016). Indeed, some researchers highlighted three profiles of older adults: (1) individuals with high need satisfaction (NS) were individuals with lower scores of depressive symptoms (DS) and apathy (A), (2) individuals with low-moderate NS obtained higher scores of DS and A than those of the first profile, and (3) individuals with high-moderate NS had high-moderate scores of DS and A. Moreover, individuals with high score of perceived autonomy support were patients of profile (1). With these knowledges, we wanted to fill the gap because none studies have been conducted with healthcare professionals and patients about "what elements might compose an autonomy-supportive environment?" Indeed, it seems interesting to clarify behaviors underlying an autonomy-supportive motivational style in GCS. Methodology & Theoretical Orientation: Three hospitals accepted to participate to the study. Seven focus groups (four with healthcare professionals and three with patients) have been conducted with a semi-structured guide (Patton, 2002) to explore the point of view of healthcare professionals and patients about an autonomy-supportive environment. A total of forty-four (n=44) individuals, including twenty-six (n=26) professionals representing all professions working on GCS and eighteen (n=18) patients were recruited. All focus group were transcribed verbatim and content qualitative analyses were performed using a software analysis (NVivo 10-QSR International) and a manual content analysis approach. Findings: (A) Our results based on queries for text analysis highlighted three categories defining the notion of autonomy support in health context for professionals. These categories point out well the importance of the social link between medical staff and patients through the "promotion of progress", the importance of "establish a relationship of trust", and the necessity to "encourage them (patients) to express themselves". (B) Results from patients focus group are still in progress. (C) Expected results should highlight common points and differences outlook between healthcare professionals and patients. This will allow us to make recommendations and propose training sessions for professionals to adopt an autonomy-supportive motivational style.

Keywords: *Self-determination theory, autonomy support, geriatric care services, older people, qualitative analysis.*

1. Introduction

In France, the geriatric care services were created with the dual aim of ensuring the older people's access to appropriate care and optimizing management of hospital stays. In these services, older people are admitted after a stroke, surgery or chronic condition, and 53% of their population are older people over 70 years. The average length stay in these units was 34.8 days for older people (Coquelet & Valdelièvre, 2011). On the one hand, within these services, autonomy is considered as an important outcome strongly associated with the idea that older people should be allowed or enabled to make autonomous decisions about their health care (Pardessus, Durocher, & Di Pompeo, 2000). On the other hand, Self-Determination Theory (SDT; Deci & Ryan, 1985) is a theoretical framework that examines autonomy support and outlines its importance in motivating change of various health behaviors (William, Lynch, Mc Gregor, Ryan, Sharp, & Deci, 2006). Thereby, based on Self-Determination Theory, autonomy support appears to be a key factor for patients in geriatric care services. Souesme, Martinent

and Ferrand, (2016) showed that the perceived autonomy support in these services was positively correlated with higher scores of basic psychological needs satisfaction of autonomy, competence, and relatedness and negatively correlated with lower scores of depressive symptoms and apathy. Whether sport, organizational or educational settings, autonomy support was always positively correlated with positive outcomes for individuals (Cheval, Chalabaev, Quested, Courvoisier, & Sarrazin, 2017; Reeve, Jang, Carrell, Jeon, & Barch, 2004; Wickramasinghe & Wickramasinghe, 2017). However, although this notion has been widely studied in different domains, recent developments in SDT have suggested that two others dimensions namely structure and involvement could be associated with autonomy support. In this context (health), it seems interesting to increase our knowledge about autonomy support and its dimensions. For this, our study focused to trying to define the concept of autonomy support environment in the present one. Eventually, the present study used interview groups to identify themes and behaviors, and seeks to propose a reflection based on the data collected.

2. Methods

2.1. Participants

Twenty-six (n=26) professionals representing all professions working on GCS and eighteen (n=16) patients were recruited. from geriatric care services located in the French Region Centre-Val de Loire and agreed to participate. Healthcare professionals covered all professions, reflecting the diversity and the maximum variation of experiences and points of view in these services: six were nurse-aids, five were physicians, four were nurses, two were qualified hospital service employee's, one was an occupational therapist, on was a social worker, one was a nutritionist, one was a psychologist, one was a director of geriatric care service, one was a health executive, one was a nursing student, one was a service's referent, and one was a physiotherapist. Regarding the patients, these have been recruited in three geriatric care services. Men represented 19% of participants ($n = 8$).

Table 1 presents participants' characteristics in term of age, number and composition per focus group. Prior to data collection, written informed consent was obtained from healthcare professionals and patients, and codes set to ensure their confidentiality.

2.2. Focus group guide

By following Patton (2002) recommendations, a semi-structured guide format was used with the same central questions to ensure consistency between focus group. After an introduction with a presentation of the moderator as well as the assurance of the anonymity of the data and valuing the importance of personal participation, open-ended questions were asked by the moderator. "What" and "how" questions are used to understand the participants' experience from their own point of view, (Blanchet & Gotman, 2012; e.g., what strategies are you putting forward so that an autonomy supportive motivational style can be adopted? What can you tell me about the behaviors associated with these strategies? How do you do?). For each question, elaboration (i.e. 'could you say something more about that?') and clarification (i.e. 'what do you mean by that? Are there other points of view?') probes were used. Third, a final synthesis of the discussion was put in place, and the moderator invited all participants to discuss any issues that may have been overlooked.

2.3. Data analysis

Focus group were audio recorded, transcribed verbatim, and data analysis was carried out using Nvivo 10 software for Mac QSR International. A general inductive approach was used to analyze the data (Thomas, 2006). Each transcript was read and re-read multiples times by the two researchers in order to create preliminary node structures. Coding was continually refined though discussions and the node structures were also discussed with other researchers considered as 'disinterested peers' (Lincoln & Guba, 1985, p.308) to debate the researchers' interpretation of the overall findings. Only a few minor discrepancies have been established between the researchers, and once node structures were finalized, the Nvivo 10 software was used to manage the data as follows: (1) for each node, use "queries for text analysis" in order to explore the text in our sources; (2) the most frequently occurring words in our source appear; and (3) main themes were identified. These themes were composed of words having a descending number of occurrences.

3. Results

Three themes emerged from interviews with professionals. First, the theme "***build a relationship of trust with older people***" was put forward by spending time, welcoming, and respecting patients. This

allows them to create a climate of trust with patients. This was expressed this way: "*I personally think that it takes time. We are fortunate to have older people over a fairly long time. So, this helps to build a relationship little by little.*" (Nurse). Second theme was "**encourage them to express themselves**". Healthcare professionals pointed out that talking with the patient or the family was an important point because to establish a good care plan, they had to know the person and his/her psychology. This was expressed this way: "*It is clear. Each individual, everyone needs a minimum of time that is dedicated to them to feel heard, understood, listened to and supported.*" (Physiotherapist); "*Things have to be rephrased because it is important that older people express their anxiety and questioning.*" (Physiotherapist). Last, "**promote progress**" was our third theme. For healthcare professionals, it seems important to help and support the patients in their progress. This was expressed this way: "*We have a job to do regarding the loss of autonomy and, because the capacity is no longer the same as in the past, we must look together as to how the patient can rehabilitate him/herself in his/her daily life in a different way.*" (Psychologist).

Regarding patients, results differed. Some elements are common with healthcare professionals as the importance of welcome and its quality, the recognition by patients of the interest of the medical staff for them and the willingness's healthcare professionals to include patients in the care project. Common points were expressed this way: "*Yes, we are very well welcomed. Immediately, we are welcomed and almost everyone see us in the room.*" (Patient n°2); "*I think it's a set, first with the medical staff, doctor included, and then in the rehabilitation, it's not the medical staff who can do it for us.*" (Patients n°4). Other elements diverge. Patients focused on negative points concerning the creation of a relationship of trust. For them, healthcare professionals are short of time, numerous to intervene, and change too often. This was expressed this way: "*The medical staff is overwhelmed, they do not have much time to grant us, this is especially so. The medical staff does not much time to grant us.*" (Patient n°1); "*They don't have time to discuss.*" (Patient n°2); "*No, no, they don't have time.*" (Patient n°3). Moreover, patients highlighted that a personal motivation was an important factor of success. They pointed out that they need the knowledge of medical staff but they also have to be personally motivated. This was expressed this way: "*Success is the outcome of both, together.*" (Patient n°2).

4. Discussion

The aim of this study was to explore the points of view of healthcare professionals and patients about what is an autonomy supportive environment, and to identify themes and behaviors underlying these three dimensions (i.e., autonomy, structure and involvement) in geriatric care units. Thus, the present study presents theoretical and practical implications.

In this sense, for autonomy, the trusting relationship identified by healthcare professionals is a good example because it integrates openness, respect, interest, understanding and mutual exchanges, allowing to treat the patient as a person, and is created incrementally over time (Starfield, 2011). Actually, all studies dealing with practitioners-patient relationship highlighted that professionals autonomy support was essential to increase patient adherence to treatment (Umeukeje et al., 2016). However, the point of view of patients must be taken into account as they could say. Indeed, patients were more cautious about the possible establishment of this relationship. For them, healthcare professionals meet too many constraints which prevents them from developing a relationship. To remedy this, healthcare professionals must include a time spent with the patient (communication) in order to set up a more patient-centered care approach (Kuehn, 2012). To help healthcare professionals to adopt a more autonomy-supportive motivating style, it seems important that healthcare professionals assume to be the key factor of a social context of quality (Chang et al., 2009).

Concerning structure dimension, healthcare professionals and patients seem to be agreed. Patients indicated that the structure provided them a quality care plan with competence-relevant feedbacks, guiding the necessary activities and providing a good rehabilitation. These results are in agreement with those of Jang, Reeve and Deci (2010) in school context and highlight the role of SSR units in their actions of rehabilitation care (Russel & Bray, 2010). Indeed, patients know that their rehabilitation go through healthcare professionals' knowledges. Studies of Pearson and Raeke (2000) and Hall et al. (2002), have shown that the trust in their healthcare professionals is an important factor for patients' rehabilitation in order to increase their treatment adherence.

Finally, for involvement dimension, healthcare professionals and patients share a common position. Healthcare professionals as patients consider each other as a person, and not just as "an object of care" (Finset et al., 2017). However, differences emerge on the quantity and quality of the encouragements provided and on the quality of listening. Indeed, patients have described the behavior of health professionals as ineffective both in terms of their involvement in their listening and of interest in the answers to their questions. As has been shown in a study by Neumann et al. (2011), the

communication skills of health professionals need to be reviewed. For Rosenbaum (2017), it would be useful for patients that the healthcare professionals' communication skills incorporate appropriate questioning, listening, the expression of empathy and the possibility of shared decision-making.

In an educational setting, Su and Reeve (2011) indicated that it was possible to train teachers to adopt an autonomy-supportive motivational style via brief training sessions. However, these interventions can have a positive impact on health practices provided that its sessions provide enough detail to implement an autonomy-supportive motivating style in the practice (Ntoumanis, Quested, Reeve & Cheon, 2017).

Table 1. Participants.

Profession	Age	Sex	
		Men	Women
Practitioners	40 to 55	2	2
Qualified hospital service employee's	37 to 52	-	3
Nurses	33 to 52	-	3
Nurse's aids	28 to 31	-	7
Health executives	32 to 47	-	2
Social worker	35	-	1
Psychologist	27	-	1
Nutritionist	48	-	1
Health executives	32	-	1
Occupational therapist	41	-	1
Physiotherapist	46	1	-
Service's referent	43	1	-
Director of a geriatric care service	38	1	-
Patients	68 to 92	3	12
Total		8	34

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THE REVIEW ON THERAPEUTIC USE OF MUSIC AND SOUND STIMULATION METHODS

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Abstract

Music heals (Habibi & Damasio, 2014). Since ancient times, healing through music which evokes and regulates emotions from agony to euphoria has been accepted as a remedy method for centuries. For instance, in Anatolia, Greeks used to place an ill person into the middle of the amphitheater and exposed specific sounds and voices to him for recovery (Thompson & Andrews, 2000). Similarly, particularly during Ottoman Empire, having been accepted of the notion that "music is medicine" led different timbres and notes of Classical Turkish Music to be evolved and used for healing in various clinical conditions especially for psychiatric patients at hospitals called "Şifahane" (Gençel, 2006). Accordingly, many people today still tend to use music for feeling better, managing their emotions, concentrating more, coordinating their movements. Especially in the last 20 years, music pyschology literature has shown that music processing even passive music listening affects the neurochemistry of the brain structures in both hemispheres (e.g., Bidelman, Krishnan, & Gandour, 2011; Blood & Zatorre, 2001; Brown, Martinez, & Parsons, 2004; Menon & Levitin, 2005; Peretz, & Zatorre, 2005). Hence, there has been a growing interest in the world related to music-making and music-listening therapies including sound therapies particulary used for various developmental difficulties (e.g., Esteki & Soltani, 2015; Molnar-Szakacs & Heaton, 2012; Neysmith-Roy, 2001) since the efficacy of auditory processing which plays a fundamental role in many sensory, perceptual, and even higher-order cognitive functions empirically has been proved (see Kraus & Banai, 2007). Sound therapies such as audio-psycho-phonological methods (Tomatis, 1996) promote the training of listening perception instead of passive hearing that increase learning, listening and language skills. Also, keeping a steady beat can help individuals to develop a sense of security and internal stability feeling which bring order and harmony. Hence, the present paper aims to review on the roots of therapeutic use of music, the impacts of music on the nervous system, and lastly focus on the description and the implications of the audio-psycho-phonological methods with current literature findings.

Keywords: Music therapy, sound therapy, auditory stimulation, neuro-developmental disorders.

1. Introduction

Music is considered to be one of the most pleasant and rewarding experience in life. It functions as a tool for communication, social bonding and connection with outside world for the mankind (Carroll, 2011). Music experience has a huge impact in many respects including cognitive, sensory-motor and psychosocial enrichment (Altenmüller & Schlaug, 2013).

Recently, much of the literature on neuroscience have suggested that brain has a extraordinary capability of changing and adapting itself as a reaction to environmental stimuli which renders cortical maturation, learning new skills, executive functions and memory gain (Doidge, 2015; Wan & Schlaug, 2010) and music makes remarkable contribution of this *plasticity* feature of the brain. In other words, music changes entire neurochemistry and neurostructure of the brain (Habibi & Damasio, 2014; Menon & Levitin, 2005). Thus, the present paper aims to review on the roots of therapeutic use of music, and impact of music on nervous system, and due to lack of space, we only focus the description and implications of audio-psycho-phonological methods with the literature findings briefly. In this paper, sound therapy, sound stimulation or auditory stimulation terms will be used interchangeably.

2. Brief history on therapeutic use of music

Roots of music are deep. Music use in healing started approximately 30.000 years ago by shamans to purge the evil spirits with magical and religious rituals in ancient societies such as Egypt, India, Middle East, and China (McCaffrey, 2015). For example, Anatolia region where Seljuks in 10th century and subsequently Ottomans in 14th century settled down for centuries had integrated Middle Asia's Turkish Shaman culture into ancient Greek characteristics with Turkish Islamic motives and figures. Thus, during middle age, different musical tones of Classical Turkish Music (*İsfehan* tone for cognition, *Rehavi* for relaxation) were exposed to psychiatric inpatients occasionally combined with body movements using pentatonic music scales called *Anatolian Yoga* (Gençel, 2006, p.703).

Even though music therapy in the West has started in 20th century particularly after II. World War for recovery mostly in veterans' hospitals in the U.S., the first systematic therapeutic use of music appeared in 18th century to heal mental disorders in Europe (see Carroll, 2011; Gooding, 2018). Today, music has been using scientifically as a form of health care with all age groups in individual or group settings with the implementation of relevant psychotherapy theories similar to art or occupational therapy for affective, physical, social, cognitive, and communicative purposes in mental health, medical, geriatric, and educational settings by a credential therapist (American Music Therapy Association, 2006). Broadly, music therapy strategies can be classified as *active* and *passive* including musical improvisation, playing an instrument; talking about music such as lyric analysis; moving to music such as dancing and listening recorded music (Gooding, 2018). Therefore, in that sense, sound therapy can be assumed as a form of music-listening therapy (Corbett, Shickman, & Ferrer, 2008).

3. Music and the brain

Music is technically defined as a powerful multimodal stimulus that transmits visual, auditory and motor components to a special brain network that includes fronto-temporo-parietal regions (Schlaug, Altenmüller, & Thaut, 2010). It links brain regions, remedies noisy networks, and establishes new connections with providing pleasure (Altenmüller & Schlaug, 2013).

Evidence-based research so far has shown that music positively impacts dopamine levels through mesocorticolimbic structures such as ventral striatum, ventral tegmental area important for reinforcement, reward and motivation especially during enjoyable music perception; serotonin levels through brainstem which regulates autonomic responses heart rate, blood pressure, and respiration and also higher order functions such as attention, planning and organization; immunity markers such as leukocytes and cytokins and stress hormones such as cortisol, corticotrophin-releasing hormone (CRH), β-Endorphin, and adrenocorticotropic hormone (ACTH) especially as a result of listening relaxing pre-recorded music (Bidelman et al., 2011; Blood & Zatorre, 2001; Chanda & Levitin, 2013; Menon & Levitin, 2005; Peretz, & Zatorre, 2005; Plack, Barker, & Hall, 2014; Yamasaki et al., 2013).

Surely, psychoneuroimmunological effect of music experience depends on the degree of involvement with music of the participant. For instance, music singing or music making certainly activates auditory-motor connection including prefrontal cortex and subcortical areas such as basal ganglia, and cerebellum (Chen, Penhune, & Zatorre, 2008) whereas music listening primarily activates mesolimbic system (dopaminergic pathway such as ventral striatum, nucleus accumbens, ventral tegmental area, insula, cingulate cortices and hypothalamus-regulation of vitals) (Habibi & Damasio, 2014; Menon & Levitin, 2005) eventhough a couple of studies (e.g., Lahav Saltzman & Schlaug, 2007; for a review Zatorre, Chen, & Penhune, 2007) have suggested that even only listening to music without performing any movements still triggers, a lesser extent, auditory-motor network similar to music production process especially in the rhythm percept rather than pitch and melody perception. The authors interpreted this finding as that auditory-motor connection is crucial not only for the acquisition of language and but also for the protection of organisms' survival in the threat perception supporting the model of *mirror neuron systems* which suggest that audiovisual mirror neurons activate when an action is heard or observed (see Kohler et al., 2002). In brief, a great deal of research has indicated that music perception includes abundant auditory-motor interplays even only in music listening which led researchers agree that music experience greatly differs from other sensory-motor processes in terms of its uniqueness, complexity and richness.

4. Sound therapies or sound stimulation methods

Sound therapies based on audio-psycho-phonological methods are non-invasive auditory stimulation techniques that include some audio-vocal activities in which the listening function of the ear is intended to develop (Doidge, 2015; Madaule, 1994; Tomatis, 1996). In many programs, the filtered

music –usually Mozart, Gregorian chants or Bach- is implemented by the equipment which randomly retains the high frequency range of the sound (for tension) while filtering out the lower range (for relaxation) with the headphones that include bone stimulation tool at the same time. Thus, the clients learn the ability to process sounds properly which refers to the regulation of all auditory system occasionally through developing a leading ear -right ear. In other words, the purpose is to increase and regulate the function of auditory system from ear muscles to the cortex and subcortical areas in the brain with the interconnection of central and peripheral nervous system (see Doidge, 2015; Kraus & Banai, 2007; Madaule, 1994; Thompson & Andrews, 2000 for more information).

Surely, the impacts of sound therapy vary in terms of what music (acoustic features), to whom (client's characteristics such as age or psychological functioning), how it is employed (tool of delivery, type of equipment). For instance, there have been different styles or features of equipment in which some of the applications such as lateralization function of the ear could be prioritized based on the theoretical background of the practitioner. However, most of the programs in terms of the length and the content are designed based on personal assessment of the clients.

One of the most common underlying assumptions in sound therapy is that "listening is different from hearing". Hearing is a passive intake of sounds whereas listening is an active and selective process which results in well-organized auditory processing-ability to tune in and out- and vestibular control of information (Tomatis, 1991, 1996). Sound stimulation impacts significantly the neuroplasticity of the brain through activating the middle ear, inner ear, and eight cranial nerve connections on the brain stem and each neural development (O'Connor, 2012), because neural structures of the brain keep changing and growing through sound energy. Particularly, brain is more responsive to high frequency sounds -3000 Hz and above- which provide energizing effect on emotions that promoting enthusiasm, sense of stability, feeling grounded and optimism (Ross-Swain, 2007; Thompson & Andrews, 2000). Shortly, these programs hypothesize that if the auditory system functions well including auditory perception, selectivity, sequencing, memory, and localization skills, one would be able to listen and have vocal control, able to spell, read and write, and able to accomplish higher cognitive skills such as attention, planning, working memory, and integration of the information more easily and correctly.

Accordingly, most of the children with neuro-developmental disorders including Autism, Attention Deficit Disorders (ADD), and Learning Disorders (LD) have sensory or sensory integration, language, cognitive such as working memory and planning, motor, emotional and learning problems with various degrees which negatively influence their academic performance and quality of life undoubtedly. Audio-psycho-phonological methods are used to help to alleviate these relatively steady problem domains through stimulating the connection between ear and nervous system.

Despite the high prevalence of practical use of these programs in the world as an alternative treatment rather than mere cure for many neurodevelopmental disorders, there has been relatively little randomize-controlled research on the effectiveness of sound therapies. A review of the existing empirical research with audio-psycho-phonological methods has shown that there are significant improvements on cognitive, linguistic, behavioral and social adjustment, and psychomotor skills of children presented different problems including tinnitus, ADHD, learning disorders, emotional and behavioral problems, motor problems and autism (e.g., AbediKoupaei, Poushaneh, Mohammadi, & Siampour, 2013, Esteki & Soltani, 2015; Kershner, Cummings, Clarke, Hadfield, & Kershner, 1990; Neysmith-Roy, 2001; Ross-Swain, 2007; Stillitano, Fioretti, Cantagallo, Eibenstein, 2014). Eventhough some of the studies indicated lack of improvement based on statistical analysis such as Corbett et al. (2008) found that 5 children out of 11 showed no significant improvements, it has been proved that either these studies have small sample sizes or lack of random assignments (see Gerritsen, 2010; Gilmor, 1999 for reviews). Thus, further well-designed research should be conducted in order to exhibit the effectiveness of sound therapies with different problems with different samples.

5. Conclusion

Music, aesthetically, can be a way of artistic expression or self-discovery process, neurobiologically, provides energy nutrients for the nervous system. In recent times, there has been a flourishing interest in the therapeutic use of music as a skill enhancement tool rather than medical cure with the development of neuroscientific research in the last decades. Thanks to these neuropsychological understanding of music, the role of sound therapy has expanded in the scientific field with audio-psycho-phonological methods which use sounds as a tool to provide nonverbal communication for children and adults who have special needs with their auditory systems. Even though a variety of research has proved the effectiveness of these training programs (see Gilmor, 1999 for a review), more extensive research needs to be carry out to provide greater inside into the role of ear.

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THE RELATIONSHIP BETWEEN ADULT ATTENTION DEFICIT HYPERACTIVITY DISORDER AND MARITAL ADJUSTMENT[1]

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Abstract

The main aim of the current study is to examine the relationship between attention deficit hyperactivity disorder (ADHD) in adulthood and marital adjustment. The study involved 301 participants (164 women, 137 men) who had been married once, who had been married for at least a year, and who had been educated to a High School level or higher. A demographic information form, an Adult ADHD Self-Report Scale, and a Dyadic Adjustment Scale were administered. Before the research question was tested, a series of analysis of variance tests (ANOVA) and t-tests for independent groups in the analyzes were performed to investigate and determine the demographical information of participants including their gender, employment status, psychological and/or psychiatric support status, and the number of children. The results showed that participants who had two or more children not only reported lower ADHD scores but also lower marital adjustment levels compared to participants who had either one child or no children. Moreover, participants who had received or who were receiving psychological or/and psychiatric support at the time of the study reported higher ADHD levels and lower marital adjustment levels compared to participants who received no support. Before the research question was tested, correlations were also calculated among participants' demographic information including their age, duration of their marriage, adulthood ADHD, and marital adjustment. The results indicated that duration of marriage was significantly and negatively correlated with both adulthood ADHD and marital adjustment; thus, the duration of marriage resulted in lower ADHD scores and marital adjustment scores. To test the main aim of the study, hierarchical regression analysis was conducted using marital adjustment as the dependent variable. Independent variables were included into the equation according to two steps: first involving number of children, receiving psychological and/or psychiatric support, and duration of marriage; second, by including ADHD scores into the equation. The results demonstrated that, after controlling for first step variables, adulthood ADHD was significantly associated with marital adjustment. In other words, higher ADHD scores were significantly associated with lower marital adjustment levels. These findings are parallel to those in existing and related literature. The results of this study are discussed within the framework of related literature and suggestions made accordingly.

Keywords: Marital adjustment, adulthood attention deficit and hyperactivity disorder.

1. Introduction

Humans are creatures that socialize by building and maintaining relationships; of these relationships, marriage is among the most significant and is extremely meaningful (Ovalı, 2010). This special kind of relationship has been a tool for continuity of generations, it creates relationships per affinity between couples and it makes humane needs to be welcomed in unity and solidarity (Gülsün, Ak & Bozkurt, 2009). Marriage provides both societal development and maturation, creates healthier family relationships, assists individuals attain their personal goals and, when the marriage is compatible, satisfactory, and both parties are committed to the marriage, boosts mental and physical health (Gülsün et al. 2009; Tutarel-Kışlak, 1999).When two people are in a compatible relationship, they interact, care about one another's goals, values and opinions, exchange ideas, seek out constructive solutions for problems and, because of all of these factors, do not face as much conflict (Boden, Fisher & Niehuis, 2010).

ADHD is a disorder that results in intolerance concerning attention, focus and obstruction, as well as mobility and impulsivity problems. An individual with ADHD may experience behavioral and/or cognitive anxiousness, aggression, and eagerness as a result. This disorder limits a person's functionality

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considerably; ADHD generally develops in childhood and remains with an individual throughout their life (APA, trans. 2014; Mukaddes, 2015; Semiz, Cengiz & Öner, 2012). Diagnosis criteria in DSM-5 generally comprise childhood because its symptoms have not been fully determined. This makes it difficult to understand ADHD and its impact on individuals in both during earlier ages and in adulthood (Mukaddes, 2015).

Although ADHD is described as the most common neurodevelopmental disorder, symptoms generally continue in adulthood, the nature and severity of the disorder can change and it often limits an individual's functionality (Pera, trans. 2013; Semiz et al., 2012). According to existing literature, 50% of individuals with ADHD in childhood presented the same ADHD symptoms in adulthood (e.g. Pera, trans. 2013). Problems arising from increased responsibilities due to maturity and increasing societal and familial responsibilities and expectations in later life, as well as decreasing financial and/or moral support can exacerbate the extent to which the disorder can impact an individual. This can result in functionality problems and lead to academic and vocational problems; hence the life a person leads if they have ADHD may seem more chaotic (Mukaddes, 2015; Pera, trans. 2013).

ADHD in adulthood can cause problems for the individual concerned, both regarding their own life as well as for their interpersonal relationships. Individuals with ADHD have insufficient motivation to control, orient and maintain their attention when it is supposed to be directed toward the person in front of them. A retardation may occur regarding their brain's functions when they push themselves to focus (Ersoy & Topçu-Ersoy, 2015; Mukaddes, 2015; Pera, trans. 2013). These people have difficulty in understanding, empathizing and socializing with other people, and therefore they may seem "egocentric" (Pera, trans. 2013). Therefore, such individuals may not be aware of effects of this disorder, even when they have problem in their marriages and interpersonal relationships (Semiz et al., 2012; Pera, trans. 2013). In particular, their marriages may be damaged due to the difficulty they experience when communicating effectively with their spouses, regulating their emotions, and when being overly honest and direct (Betchen, 2003; Mukaddes, 2015; Robin & Payson, 2002). The intervention of individuals with ADHD often fail with their interventions when it comes to solving problems, and they often repeat mistakes because they are unaware of such failures (Pera, trans. 2013; Robin & Payson, 2002). Consequently, couples can become exhausted and their marriages can come to an end (Robin & Payson, 2002).

Looking at marriage relation from the point of ADHD can be seen as a hope for a real change (Pera, trans. 2013). Individuals diagnosed with ADHD start to search for a treatment due to the problems they experience in their marriages and close relationships. The spouses' roles and motivating attitudes are important during treatment because ADHD symptoms can prevent logical solutions and main reasons of the problems one have (Pera, trans. 2013). Studies in literature focused on ADHD symptoms, relative disorders and relationship disorders. Very few studies on marriage were found. However, spouses are generally right observers of the problems that individual with ADHD face in familial, academic and vocational fields (Pera, trans. 2013). In line with the aim of this study, the relationship between adults with ADHD and marital adjustment will be examined. Very few Turkish studies were found on the relationship between these variables, although many studies were found on adult ADHD and marital adjustment. This study will shed light on literature in terms of studies conducted on this subject. Consequently, this study is considered as contributing to existing literature.

2. Method

2.1. Participants

The study sample was comprised of individuals aged between 18–65 and who had been married for at least one year. All participants had completed high school and had only been married once at the time of the study. All participants lived in Turkey. Scales were applied to 358 people during the data collection stage of this research. The number of usable data decreased 301 in line with necessary analysis. There were no unfilled items among the collected data.

A total of 164 participants were female (54.5%) and 137 (45.5%) were male. All participants were aged 22–62 at the time of the study; the mean age of all participants was 35.80 ($SD = 9.59$). The marital duration of participants varied between 1–40 years in length, with the mean being 8.87 years ($SD = 9.90$). It was found that 15.3%, 15.9%, 51.2%, 17.6% of the participants had completed high school, college, university and post-graduate education programs, respectively. Of these individuals, 76.1% were still employed and 29.9% were unemployed. On examination of the sample group, it was found that 87% of the participants got married voluntarily, 9.6% got married through an arranged marriage, and 3.3% got married through different means. Overall, 42.5% of participants did not have children, 26.6% had one child, and 30.9% had two or more than two children. According to the data collated regarding the psychological support participants received, 24.3% of participants had been given psychological and psychiatric support prior to their participation (n = 73), and 75.7% (n = 228) had never received psychological or psychiatric support.

2.2. Data collection tools

The data collection tools included the demographic information form, created by the researcher and informed by existing literature, asked questions regarding their marriages; the length of their marriage and how many times they had been married were posed alongside questions regarding the participant's sex, age, education and employment status. Moreover, it included following two scales;

The Dyadic Adjustment Scale (DAS) is a 32 item Likert-type scale, developed by Spainer (1976), to measure the quality of a relationship as perceived by spouses. The score interval of the scale varies from 0–151 and scores increase from relationship incompatibility to compatibility (Fışıloğlu and Demir, 2000). A Turkish adaptation of the scale was done by Fışıloğlu and Demir in 2000. Turkish validity and reliability analysis of the Dyadic Adjustment Scale comprised of 264 married participants (132 female and 133 male). The Cronbach's alpha internal consistency coefficient for the scale was .92. Split-half test reliability coefficient for the scale was .86.

The Adult Attention Deficit and Hyperacticity Disorder Self- Report Scale (ASRS-v1.1) is an 18 item and five-point Likert type self-report scale that measures the frequency of ADHD according to the World Health Organization's (WHO) DSM-IV. The DSM scales were developed by Kessler et al. (2006). A Turkish validity and reliability test was done by Doğan et al. (2009). The internal consistency of the scale was found to be high in the reliability analysis by Doğan et al. (Cronbach alpha=.88), and the test-retest reliability was found to be high (r =.85).

2.3. Process

Measurement tools were brought together, and a scale battery was developed. Written approval, including information explaining the aim of the study was given to participants. A written preliminary information form explaining the aim of the study was also distributed to all participants.

All participants took part in the study voluntarily; collection of participant data took approximately 15–20 minutes. Data were collected by researcher according to the aforementioned scales using http://www.surveey.com.

2.4. Data Analysis

Obtained data were analyzed using the IBM SPSS Statistics 24 program to examine the questions and hypotheses. A purposive sampling method was used in this study. Therefore, only individuals who had been married for at least a year, who were aged 18–65, who had completed high school, and who had only been married once, were included in the study. Rest of the data included in the analysis using the mentioned program in line with the aims of the study.

3. Results

3.1. Descriptive statistics and correlation analysis

The fundamental premises for the assumptions of multivariate statistics were tested before testing hypothesis on obtained data and the data prepared for the rest of the analysis.

Regarding the main variables of the study, the mean score for the mean score for the ASRS-v1.1 was 27.16 (SD = 8.65) and the mean score for the DAS was 114.07 (SD= 20.97). Correlations between the main study variables were tested using correlation analysis. These correlation analysis results are shown in Table 1.

Table 1. Correlations between variables used in the study.

	1	2	3	4
Age	1			
Duration of marriage	.91**	1		
Adult ADHD	-.21**	-.19**	1	
Marital Adjustment	-.09	-.11*	-.27**	1

Note: *p <.05; **p <.001.

3.2. Analyses on demographical variables

Group comparisons were made for the following variables: participant's sex, employment status, psychological or psychiatric support, and number of children.

Adult ADHD of participants (t (299) = -2.07, p < .05) and marital adjustment levels (t (299) = -2.84, p < .05) were significantly differentiated from psychological/psychiatric support receiving status. According to the results of this study participants who had previously received support (M = 30.41, SD = 7.77) showed a higher adult ADHD level compared to those who didn't (M = 26.12, SD = 8.68). In addition, those participants taking support (M = 108.07, SD = 23.37) reported lower marital adjustment at less levels (M = 115.99, SD = 19.81) than those participants who were receiving no such support. Moreover,

the impact of the number of children and its effect on the main study variables were analyzed. Results showed that adult ADHD significantly changed on the number of children (F (2, 298) = 7.28, $p < .001$). Tests conducted with LSD test showed that participants who had two or more children (M = 24.38, SD = 8.74) reported lower levels of adult ADHD than those couples who had no children (M = 28.45, SD = 8.30) or had one child (M = 28.35, SD = 8.45). In addition, marital adjustment levels showed significant change on the number of children (F (2, 298) = 3.018, $p < .05$). Tests conducted with LSD test showed that participants who had two or more children (M = 109.96, SD = 20.82) reported lower levels of marital adjustment than those couples who had no children (M = 116.92, SD = 21.17).

3.3. Factors predicting marital adjustment

Hierarchical regression analysis was done, demographical variables that had a significant correlation and differences were included in the analysis as hyperactivity predicting variables. Regression analysis results are presented in Table 2.

Table 2. Predicting marital adjustment by demographical variables and adult ADHD.

	F_{change}	Sd	β	t	pr	R^2	Adjusted R^2
Stage I	5.73**	3.297				.06	.04
Number of children			-.14	-1.75	-.10		
Duration of marriage			-.04	-.52	-.3		
Receiving Psychological/Psychiatric Support			.19	-3.30**	.19		
Stage II	25.88**	1.296				.13	.12
Number of children			-.16	-2.13	-.12		
Duration of marriage			-.07	-.97	-.06		
Psychological/Psychiatric Support			.13	2.42*	.14		
Adult ADHD			-.29	-5.09**	-.28		

Note: *p <.05, **p ≤001.

At the first stage, among the demographical variables, the number of children [(β =-.14, t (297) = -1.75, p = .08, pr = -.10)], duration of marriage [(β =-.04, t (297) = -.52, p = .60, pr = -.03)] and psychological/psychiatric support [(β =.19, t (297) = 3.30, p = .01, pr = .19)] were entered into regression equity and explained 4.5% of the variance. After checking demographical variables, attention deficit and hyperactivity [(β =-.29, t (296) = -5.09, p < .001, pr = -.28)] were included in regression equity and total variance reached at 11.9% (F_{change} (1,296) = 25.88, p < .001). These findings showed that both psychological/psychiatric support and adult ADHD levels significantly predicted marital adjustment.

4. Discussion

This study aims to determine the relationship between the marital adjustment levels of married individuals and adult ADHD levels. Within the scope of the study, the adult ADHD and marital adjustment prediction was observed; the study results determined that getting psychological/psychiatric support before and ADHD level predicted marital adjustment. The largest contribution among the variables was made by ADHD level.

In the current study, it was shown that individuals who had not received psychological/psychiatric support before had higher level of marital adjustment than the ones who received psychological/psychiatric support. This finding is consistent with prior research (e.g. Akar, 2005). In addition, relative literature it was found that related literature showed that individuals generally took a professional support due to incompatibilities and conflicts (Tutarel-Kışlak, 1999; Gülsün et al., 2009). For this reason, psychological/psychiatric support seems to be important in marital relationships.

The present study also showed that marital adjustment level significantly increased while adult ADHD decreased. These findings show parallelism with literature (Balibeyoğlu & Arz, 2014; Ben-Naim et al., 2017; Ersoy & Topçu-Ersoy, 2015; Robin & Payson, 2002). Individuals with ADHD experience ongoing conflicts with their spouses in following fields: effective communication (Betchen, 2003; Pera, trans. 2013); sexual compatibility (Betchen, 2003; Pera, trans. 2013); and fulfilling responsibilities regarding the marriage and their partner (Ben-Naim et al., 2017; Ersoy and Topçu-Ersoy, 2015; Robin & Payson, 2002). Consequently, divorcing rate among such individuals is high (e.g. Pera, trans. 2013). Moreover, these individuals often deny the problems they experience and avoid constructive solutions (Pera, trans. 2013), felt more unloved (Ersoy & Topçu-Ersoy, 2015), had less intimacy with their spouses (Ben-Naim et al., 2017) and less marital adjustments (Balibeyoğlu & Arz, 2014; Ben-Naim et al., 2017).

The results of this study add a new dimension to those of existing in literature. This study has made a significant contribution to existing literature by demonstrating that adult ADHD symptoms may cause marital problems. To this end, the accurate assessment of ADHD is important in terms of understanding marital problems both for the individual concerned and for couples therapy. Understanding of the correlation between these variables will aid assessment and intervention.

This research study has some important limitations. First, only married couples were included in the study; no information was obtained from their spouses. Obtaining information from both sides and including spouses in the study can be beneficial for a detailed and trustworthy result to really understand the correlation among the study variables. Another limitation to this study was that the study only included individuals aged 18–65, who had completed high school, who had been married only once, and who had been married at least for one year at the time of their participation. Moreover, the distribution of education levels did not represent country distribution. Therefore, generalization of obtained data was limited.

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DO STRESSFUL RELATIONSHIPS WITH FRIENDS AND FAMILY ENHANCE PROBLEMATIC INTERNET USE?

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Abstract

During adolescence, adolescents move away from their parents in order to establish their place in society. Therefore, there are two arenas that have a significant impact on adolescents; the family and the social one. The intensive use of adolescents on the internet leads to concern about Problematic Internet Use (PIU). Therefore, the goal of this study was to examine if stressful environments such as being a victim to bullying and/or cyberbullying, and poor relationships with parents could be linked directly and indirectly to PIU. Data was collected from a representative sample of 1,000 adolescents aged 12-17. Measures included demographics, short problematic internet use test, relationships with parents' questionnaire, cyberbullying scale and separately traditional bullying test. Results revealed that both poor parent-child communication and being a cyberbullying victim were related to PIU. Correspondingly, Poor parent-child communication had indirect effect on PIU through bullying and/or cyberbullying victimization. Conversely, both positive mother-child communication and positive father-child communication had indirect effect on PIU through bullying or cyberbullying victimization, implying that good communication with parents actually can assist reducing victimization to bullying and PIU behavior. Limitations, conclusions, and suggestions for further research are discussed.

Keywords: Problematic Internet Use (PIU), relationship with parents, bullying, cyberbullying, path analysis modeling.

1. Introduction

These days it seems like every person is equipped with direct connection to the Internet at any given time for a variety of needs. While the Internet offers great convenience, there is a growing concern, especially in youngsters, for Problematic Internet Use (PIU) (Siciliano et al., 2015).

In order to determine PIU in adolescents, four components are considered to be essential (Siciliano et al., 2015): (1) excessive use, often with a loss of sense of time, that causes loss of sleep or neglect of basic drives; (2) withdrawal, including feelings of anger, tension, and anxiety when the Internet is inaccessible; (3) diversion from usual activities such as homework and real face-to-face social life, preference to stay connected instead of spending time with friends in other activities; and (4) excessive time spent online to the point of being urged to reduce the use of Internet by parents or friends. Another important components of PIU is the use of the internet to reduce anxiety, feelings of isolation, or negative emotions (Gámez-Guadix, Villa-George & Calvete, 2012).

During adolescence positive social relationships are essential in order to maintain healthy well-being. However, cyberbullying is a growing phenomenon that seems to be a common feature of interpersonal relationships during adolescence (Gámez-Guadix, Villa-George & Calvete, 2012). Another essential impact on adolescence's life, who can be a source of stress or confidence, is the quality of communication with parents. Parent-child communication have been reported as having a major influence on adolescents' engagement in problematic behavior related to the Internet (e.g., Valcke, Bonte, De Wever, & Rots, 2010).

Therefore, this study seeks to explore whether being a victim of bullying and/or cyberbullying and relationship with parents could be linked directly and indirectly to PIU. Based on the aforementioned literature review, the following hypotheses were posited:

(H1) Positive parent-child communication will decrease PIU, meaning that when the children have good relationships with their mother and father, they will be less inclined to use the digital environment for support and comfort.

(H2) Poor parent-child communication will be positively linked to PIU, meaning that adolescents who feel distant from their parents will be more inclined to PIU.

(H3) Being a victim of bullying and/or cyberbullying will be positively linked to PIU, as children will seek social interactions, support and encouragement online.

(H4) Positive parent-child communication will be negatively linked to PIU through bullying and/or cyberbullying victimization. On the other hand, poor parents-child communication will be positively linked to PIU through bullying and/or cyberbullying victimization.

2. Methodology

Data was collected from a sample of 1,000 Israeli adolescents aged 12-17 (mean age14 year old). In order to determine whether a stressful environment as reflected in parent-child communication and bullying victimization and/or cyberbullying victimization associate with PIU, we constructed path analysis using SEM model for observed variables.

3. Results

Overall, as the many indices illustrate ($\chi2(4) = 3.01$, $p > .05$, CFI=1.00, SRMR = .010, RMSEA=.000, RMSEA (Lo90)=.000, RMSEA (Hi90)=.042), the model measurement provides a good fit with the data. Overall, the model explained 12% of the total variance in PIU, 40% of the variance in cyberbullying victimization and 4% of the variance in bullying victimization.

H1 suggested that positive parent-child communication would be negatively linked to PIU. Contrary to our expectations, positive mother-child communication is positively associated with PIU (β=.10, p<.05), while positive father-child communication has no significant effect on PIU (β=-.07, p>.05).

However, poor parent-child communication significantly and positively correlates to PIU (β=.24, p<.01) as was expected in *H2*. Adolescents who do not communicate with their parents, or who experience conflict communication with them, are more likely to be involved in PIU.

In line with our expectations in *H3*, a significant positive link was found between cyberbullying victimization and PIU (β=.21, p<.01), indicating that adolescents who were victims of offensive messages, rejection, curses and ridicule on the internet, were more likely to develop PIU.

We found that positive mother-child communication has a significant direct effect on bullying victimization (β=-.11, p<.01) and a modest indirect effect on PIU through bullying victimization and cyberbullying victimization (β=-.022, p<.01) with 95% confidence interval of -.020 - -.004. These finding indicates that close and open communication with the mother has a protective effect on being a victim of bullying and/or cyberbullying and later on PIU. Positive father-child communication has direct effect on cyberbullying victimization (β=-.11, p<.01) and indirect effect on PIU through cyberbullying victimization (β=-.022, p<.01) with 95% confidence interval of -.025 - -.011, meaning that good and open communication between fathers and their children have the potential to actually reduce PIU.

Finally, poor communication with parents positively and significantly links to bullying victimization (β=.15, p<.01) and has indirect effect on PIU through cyberbullying victimization (β=.02, p<.01) with 95% confidence interval of .014 -.013. These findings indicate that adolescents who feel less close to their parents are more likely to be victims of bullying and cyberbullying and to develop PIU. Therefore *H4* is supported.

4. Discussion and conclusion

Some scholars found that positive parent-child communication might serve as a protective factor against PIU (e.g. Liu & Kuo, 2007). However, our findings are partially consistent with these results. Contrary to our expectations, we found that positive mother-child communication associated with a minor increase in PIU behavior and positive father-child communication had no association to PIU. It is possible that mothers who feel close to their child are less keen to restrict his or her internet usage, and as a result, the child is more susceptible to develop PIU.

Furthermore, our findings indicated that poor parent-child communication increased PIU behaviors. This finding is in line with other studies examining the association between parent-child communication and internet addiction or PIU (Ahmadi & Saghafi, 2013).

Although direct negative association between positive parent-child relationships and PIU was not found, we did find indirect association, meaning that positive mother-child communication and/or father-child communication can serve as a protective factor against PIU, through reducing the chance of

being a victim of bullying/cyberbullying. At the same time, poor communication with parents serve as a risk factor to PIU through bullying and cyberbullying victimization. Prior research suggested that high parental involvement, support and warm relationships between parent and child are most likely to protect adolescents against peer victimization (Lereya et al., 2013).

Finally, our findings emphasize that adolescents that live in a stressful environment are more susceptible to PIU. As the evidence indicated, the parent-child relationship is a key factor in assisting adolescents to overcome this complex stage in their life by maintaining open and supportive communication.

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HOW DOES PRIMARY HEALTH CARE IDENTIFY PEOPLE WITH MENTAL PROBLEMS? SURVEY IN SÃO PAULO, BRAZIL

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Abstract

Introduction: Since 2001, Brazilian Mental Health Policy has structured a new model of care: integral, horizontal, multiprofessional, community based, and intersectoral, focused on needs and rights of service users. Even though such a policy has considered the role of Primary Care as strategic in promotion, prevention, diagnosis, treatment and coordination of care, there is still insufficient knowledge about the care offered to people with mental suffering in Brazilian primary health care services. The São Paulo State Department of Health is conducting a research to identify the characteristics of mental health care offered in their primary care services. This paper, which integrates the quoted research, intends to present some preliminary results regarding the way primary care units identifies mental health needs. Method: The survey involves a telephone inquiry into 1000 primary care health units of São Paulo state, in a stratified simple random sample. Until now, 209 health units responded to the questionnaire elaborated by the researchers' team. Results: Descriptive analysis of preliminary data indicates that mental health problems are identified with high frequency in primary care services (70% of the units reported that this kind of demand appear daily or weekly), and, in the last three months, 81% of the units stated that they had received some mental health claim. However, one of the most frequent ways of identifying mental suffering claims was the patient's request for exchange of medical prescriptions (60.3%), related to treatments already in progress. The other two most frequent forms of problem identification were complaints made by the service users themselves (42.5%) and by their relatives (39.3%). Discussion: The data indicate that primary care is a strategic space for the identification of mental health problems, since it is frequent the arrival of demands of this nature. However, these services have a less active role in the search for people with mental suffering, since they depend mainly on the explicit demand made by users and their families. The exchange of medical prescriptions, which the participants cited as the most frequent form of identification of mental health problems in the services, can indicate both a passive role of the unit and a lack of evaluation and of follow-up of already ongoing treatments. Conclusion: There is need for greater participation and involvement of primary care services in active search, and in follow-up of mental health cases.

Keywords: Mental health, primary health care, health services, screening, survey.

1. Introduction

Since the end of the 1980s, with the Brazilian Psychiatric Reform, professionals and managers of the Unified Health System (SUS) have been discussing and structuring a new way of operating and organizing mental health care, leaving a biomedical model, based on hospitalization in psychiatric hospitals, which conducted to isolation, social exclusion, violation of patients' human rights, and medicalization, to initiate a territorial, community based, integral, multiprofessional, participatory, intersectoral, and continuous care model focused on the users' needs and rights.

This new model proposes the implantation of daily care services close to people's dwelling, which allows aggregating several therapeutic resources, organized in network, with a focus on psychosocial reinsertion, on the recovery of the subjects' autonomy and on the their inclusion and of their family, both in analysis of the problem, as in the care project. (Gama & Onocko Campos, 2009; Souza & Rivera, 2010; Mateus, 2013). This logic of attention presupposes the articulation and constant communication among different points of attention of health network (Primary Care, specialized attention and urgency / emergency) and among other sectors of society (education, social assistance, prisons, sports and leisure, etc.). (Ministry of Health, 2012).

In this logic of care, no specific knowledge occupies a central position. Therapeutic resources and approaches provide a multiplicity of options (psychotropic, discussion groups, therapeutic groups, brief psychotherapies, counseling, sports, artistic, and cultural activities etc.) and can be made available through various professionals (social workers, nurses, educators, psychologists, nutritionists, etc.). It can also be present in various community spaces (health units, schools, parks, community centers, libraries, etc.). Its use depends on the patient's needs and of the relevance and severity of the psychic suffering.

The consolidation of the Unified Health System in 1990 (SUS) created the conditions for the establishment in 1991 of the National Coordination of Mental Health, responsible for the formulation and implementation of a policy in the Mental Health area, which allowed the formalization, in April 2001, of the Brazilian National Mental Health Policy. In this Policy, in addition to the construction of intra and interinstitutional networks, there is the premise that part of the mental health problems should not be referred to the specialized services, and must be assumed by Family Health Strategy teams and by other Primary Care professionals.

Managing and treating mental disorders and suffering in Primary Care are crucial as it allows more people to gain easier and faster access to care and handling of their problems. Since its beginning, the new model of mental health care considered strategic the role of the Primary Health Care Network in: a) users' initial access to the system, reception of mental health needs and coordination of care; b) development of actions to promote mental health, prevention, diagnosis, and treatment of common mental suffering; c) monitoring and developing harm reduction actions for alcohol and drug users; d) follow-up of patients with severe problems, leavers of psychiatric hospitals, in partnership with the specialized mental health care network, to avoid hospitalization and to contribute to their psychosocial rehabilitation.

Although such a model of care has considered the essential Primary Care's role in the promotion, prevention, diagnosis, treatment and coordination of care, there is still shortage of knowledge about the care offered to people with mental suffering in the Primary Care network. It is unclear as to how Primary Health Units identifies and recognizes mental health care problems, and how they choose and operate interventions on them.

For this reason, the State Department of Health of São Paulo is conducting a research to know the characteristics of the care offered in mental health by Primary Care services.

2. Objective

This paper, which describes an aspect of the mentioned research, intends to present some preliminary results regarding the way Primary Care services identifies mental health needs.

3. Design

In this cross-sectional study, the reference population consists of primary health care units in the state of São Paulo, Brazil, The research involves a telephone inquiry into 1000 Health Units of the Primary Care network of the state, in a simple stratified random sample.

For the sample drawing, 4941 Primary Care establishments were grouped into strata defined by size of the municipality and existence of psychiatric hospitals. The questionnaire was composed of closed questions and divided into five blocks:

BLOCK A - Characterization of the Unit (Health Region, address, manager, type of unit, schedule, structure, professionals).

BLOCK B – Ways of problems and needs associated with mental suffering are identified (frequency of demands, how they appear, first action, other moments, instruments).

BLOCK C - Knowing the organization of care and flows to meet the demands associated with mental health and mental suffering (meetings, therapeutic projects, matrix support, referrals).

BLOCK D - Identifying interventions and their characteristics (educational activities, group activities, psychosocial and therapeutic interventions, medication, home visits).

BLOCK E - Knowing inter-sectorial articulations of Primary Care services to respond to the needs related to mental health and mental suffering (articulations and projects).

In this paper, interviews with 209 health units were analyzed.

4. Results

The descriptive analysis of preliminary data indicates that mental health problems are identified with high frequency in Primary Care services (70% of units report that these kinds of demand appear daily or weekly), and in the last 3 months, 81% of the units reported having received some mental health related

claim. However, one of the most frequent ways of identifying some mental suffering is the patient's request for exchange of prescription (60.3%) related to treatments already in progress. The other two most frequent forms of problem identification are complaints made by the users themselves (42.5%) or by their relatives (39.3%).

Although a significant part of the units reported doing some classification of the severity of mental health problems (85%), the vast majority of services (84%) stated that they did not use any instrument for tracking and identifying mental health problems in the unit. The active search for these problems is rarely done (15%). When a tool is employed, more than half of the services (72%) report using instruments made by the municipality or by the service itself, and not instruments validated nationally or internationally. Of the instruments validated the most used is the Audit.

5. Discussion

The data indicate that Primary Care is a strategic space for the identification of mental health problems, since the services report that there are frequent demands of this nature. However, it is noticed that these services still play a little active role in the search of people who have mental suffering, since they depend mainly on the explicit quest made by the users and their families. The few cases of active search accomplished can also be explained by the little use of instruments used for tracking mental problems.

According to World Health Organization, despite mental disorders and suffering have the possibility of generating long-term disabilities and compromising the quality of life of people affected, they are still largely neglected in many parts of the world, generating an increasing treatment gap. (WHO, 2009; WHO, 2002). In addition, physical and mental problems are intertwined and overlap frequently. The comorbidities and associations of problems are frequent in the demands of primary health care. The emotional aspects of physical suffering are not always identified, neither addressed, nor treated. So, it is important to qualify knowledge of Primary Care professionals about the early and precise identification of these problems. To date, however, data from this research indicate that knowledge about the ways to trace and diagnose mental health problems is still low in the Primary Care services investigated. Nevertheless, we cannot forget that there are initiatives by some services and municipalities to identify the suffering with their own instruments, although the quality and accuracy of these instruments need to be further investigated.

Although there are different therapeutic approaches to mental health problems, in the last 10 years there has been a significant increase in the consumption and use of psychoactive drugs worldwide, leading to the medicalization of treatment. To prove that tendency, we found that the most common way of services identifying mental suffering is by the user's search of exchange of psychotropic prescriptions. The procedure of exchange of prescriptions without evaluation leads to the continuation of the patients' emotional situation, nor does not modify their context, neither improve their resources. Nevertheless, this procedure has been found in the international literature, mainly in Primary Care. The fact that the exchange of prescription is the most frequent form of identification of mental health problems in the services can indicate both a passive role of the unit and a lack of evaluation and follow-up of the previously ongoing treatment.

6. Conclusions

Although Primary Care is a strategic place for early identification and care of mental suffering, there is still little deliberate and intentional activity to seek and identify situations of emotional distress in the Primary Care network in the state of São Paulo and little knowledge or use of validated tracking instruments. Consequently, there is a need for greater participation and involvement of Primary Care in the active search and in the follow-up of mental health cases and a greater qualification of the professionals in this sense.

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IMPACTS OF THE MISTAKEN IMPLEMENTATION OF SHARED CUSTODY AS ALTERNATING CUSTODY IN THE BRAZILIAN LAW

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Abstract

In Brazil the Law n. 11.698/2008, which modifies the articles 1.583 e 1.584 of the Civil Code, introduces the modality of shared custody in the Brazilian legal system. This type of children´s and teenagers´ custody is characterized not by merely splitting the child in half making them share equal amount of time with both parents, but it actually proposed the sharing of all responsibilities considering children and teenagers, including their educational and health care, for example, allowing both parents to make decisions considering their children´s lives. The law considered in this article transforms the modality of shared custody in a priority in custody judgements in Brazil, considering that, if carefully applied it can be proven to be a less traumatic kind of custody option for children and youngsters. However, the lack of knowledge about the specificities of shared custody is making Brazilian judges implement their decisions prioritizing the modality of alternate custody, mistakenly labelling it as shared custody. In alternate custody the children are split in half and spend equal amount of time with both parents without taking into consideration their age or their wills, thoughts and feelings. It is also important to highlight that it is an exception in Brazil for Family Judges to consider important to hear and to listen to children and teenagers personally before deciding about their custody. Considering the mistaken implementation of these two types of custody by Brazilian judges, this study aims to analyze the psychological social and psychological impacts of the so called alternate custody in the youngers. For this purpose, the methodological procedures used were the bibliographic and documentary researches as well as the application of 38 interviews to youngsters, from 3 to 13 years of age, that are experiencing alternate custody mistakenly labelled as shared custody. The results lead us to conclude that the lack of technical knowledge considering the two kinds of custody as well as the lack of basic knowledge about the psychological and social development of youngsters usually presented by Brazilian judges have negative impacts on the development of the children and teenagers, who feel the adult judges ignore their autonomy when deciding about their custodies.

Keywords: Children and teenagers, Brazilian family law, shared custody, alternate custody, youngsters' autonomy.

1. Introduction

Frequently, adults think they have control over all the aspects considering the life of their children, deciding about them, mainly ignoring their feeling and thoughts, considering that they always know better than their children taking when it comes to all sorts of matters related to their well being . When couple get divorced it is common for Brazilian judges to sentence the modality of alternative custody for the kids. This type of custody is characterized as the splitting use of time that each parent has with his or her son or daughter, without them having to share decisions about the education or health care of the youngers, for example. In alternative custody, often, the child spends some days in the house of hisor her mother and another days in the house of his or father, being submitted to different rules and to different ways of being raised. (Velly, 2011)

In Brazil the legislators have realized that this type of custody has several negative impacts in the lives of the youngers. Therefore they have introduced in the Brazilian legal order the Law number 11.698/2008, which modifies the articles 1.583 e 1.584 of the Civil Code, introducing the modality of shared custody of children as a priority in the field of Brazilian family law . That decision is based on contemporaneous thoughts that children are subjects of rights, demanding state, social and parental protection of their dignity, integrity, health and development (Carbonara, 2000).

This progress of the comprehension about the rights of young people in the Brazilian legal order was introduced by the Statute of Children and of Teenagers, Law number 8.069/1990, that influenced the legislators to consider the custody of children as an obligation of parents in the Brazilian Civil Code of 2002. With the addition of the shared custody in the Civil Code, this modality was transformed in priority when the judges have to decide the custody when parents don´t reach an agreement. (Dias, 2008)

The shared custody means that joint decisions about rules of children's education and health care, for example, must be achieved by both parents. The son or daughter will continue living in a particular house, but spending shared time with which or both parents –For instance, the child can be taken to school by his or her the father after having lunch with him and have the mother pick him up to have dinner with her. The shared custody can be considered a simultaneous and full exercise of family power by both parents. (Alves, 2009).

Despite the benefits of shared custody, the lack of knowledge from the judges about the differences between this one and the alternative modality represents an often mistake implementation of both. The judges sentences for the shared custody applying rules of alternative usually have a negative impact on the lives of the youngsters.

To analyze the psychological impacts of the mistaken implementation of shared custody as alternative bibliographic and documentary researches and the application of 38 interviews with youngsters, from 3 to 13 years were used as methodological procedures. All of the children and teenagers interviewed were experiencing alternate custody mistakenly labeled as shared custody.

2. Visualizing children and adolescents living with mistaken implementation of custody: result of interviews

The subjects interviewed in this research were all in process of psychotherapy in three different private chambers in the city of São Luís, Maranhão, Brazil. They were between 3 and 13 years of age. All of them were at the clinics reporting complaints about several issues, none initially related with the modality of custody they were undergoing.

All of the 38 children and adolescents interviewed, were experiencing alternate custody, sentenced as a mistake as shared custody. When interviewed they had been living for at least 90 days in the alternative custody modality, instead of a shared one, as sentenced by the judges used in all of the cases studied.

The questions that were applied in the interviews intent to make visible the conflicts and impacts that the mistaken implementation of the custody had in the lives of the subjects. The questions used were the following: 1) Where do you live?; 2) What do you think about the way that you live: spending X days at dad's, X days at mom's?; 3) If you could choose, would you change this way of living between both of your parents (X days at dad's, X days at mom's)? In the cases the interviewed child or teenager answered in an affirmative way to this question , they answered the next complementary question: In your opinion which would be the best way you could live sharing your time with both of your parents?

10 of the children and teenagers said they had two homes, 8 answers they they had three or four houses, 15 subjects said they didn't have any house and 5 didn't know how to answer the question. About the way they live, 29 of them classified this modality of custody as terrible or bad, 6 of them answered they didn't care about the custody they were submitted to and 3 – all in late childhood – affirmed that at the same times this way of sharing time with their parents was cool it was also bad.

Considering the third question, 18 children preferred to live with one parent only, maintaining the right to see the other one always he or she missed him. 7 didn't know the way they wanted to experience custody and 2 of the interviewed children wanted to live in their former home, having each parent taking turns to come home and to take care of them.

It's important to mention that 18 of the youngers expressed the desire to one of their parents or others relatives to talk with the judges who were responsible for deciding about "their lives".

3. Conclusion

The lack of knowledge about the differences between alternative and shared custody demonstrates that the best interest of Brazilian children and adolescents still neglected by law operators, including judges that work exclusively with family requests .

However the Brazilian legal order emerged a new paradigm about rights of the children and adolescents, including their autonomy and their right to dignity and to be guaranteed a healthy social and psychological development in their family environments. On the other hand, the Brazilian law professionals still ignore that children and teenagers must have an education and a coexistence uninterrupted and balanced between both parents, not living with different rules in different houses, undergoing different routines. This is clear when the Law introduces the shared modality of custody as a priority and the judges label the custody applied as shared, when they are in practice applying the alternative one.

The impacts of this mistaken implementation of custody in Brazil results in a negative impact on the behavior of the youngers and it also compromises their sense of having their own home, resulting in problems concerning their social and psychological development.

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CONTRIBUTIONS TO TRAINING IN SOCIAL EDUCATION: SOLVING CONFLICTS IN DATING AND EMPATHY

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Abstract

The Social Educator works with very diverse populations for the promotion of well-being and autonomy. In this sense, it is important to understand to what extent higher education students in this area present perceptions regarding the use of conflict resolution strategies (abusive and not abusive in dating) and empathy that can be mobilized in the future exercise of the profession. Hence, the study aims to know the relation between the perceptions of conflict resolution and empathy strategies; and to what extent the influence of sociodemographic variables (gender and age) and degree year. In this way, we seek to foresee how training can contribute to enhance the use of positive strategies for conflict resolution and the improvement of empathic perceptions. A total of 242 students from two Polytechnic Higher Education Institutions participated. This is a non-experimental and cross-sectional study. The instruments used were the *Conflict in Adolescent Dating Relationships Inventory – CADRI - developed by* Wolfe, Scott, Reitzel-Jaffe, Wekerle, Grasley e Straatman (2001), validated for the Portuguese population by Saavedra, Machado, Martins, e Vieira (2011) and the *Interpersonal Reactivity Index* (IRI, Davis, 1980, 1983), in the Portuguese version (Limpo, Alves, & Castro, 2010). In the results, we highlight in the CADRI, statistically significant differences; i) by gender, in the *abusive strategies of conflict resolution* (own behavior - perceptions of sexual violence and behavior of the other - perceptions of physical violence), and non-abusive conflict resolution strategies (behavior of the other); ii) by age (age group) in *abusive conflict resolution strategies*, behavior of the other-perceptions of physical violence. In IRI, there were statistically significant differences in the subscale of the *empathic perspective*; in the *global scale of empathy* (according to gender and degree year), as well as in the *empathic concern subscale* (according to the degree year). Positive and significant correlations are also found in some of the conflict resolution strategies identified from the CADRI and one of the IRI subscales and dimension, as well as in the global scale. Based on the results, strategies that could be developed in the context of training were thought, with a view to enhancing improvements with impact on the personal and social development of trainees.

Keywords: Social education, empathy, dating violence, conflict behaviors, higher education quality.

1. Introduction

The work of the Social Educator is conceived from an educative, transformative and emancipatory perspective and is based on the capacity for development (Azevedo & Correia, 2013). In this sense, the professional needs to have relational skills, be available to understand the other and have an empathetic attitude and active listening, to respond to the demands and challenges placed on the profession today. It is important, from the point of view of their training, to invest in the promotion of technical and scientific competences (which support the processes of intervention in different contexts), but also in the promotion of personal and relational skills, central to the development of socio-educational work (AEIJI, 2006). Analyzing conflict resolution strategies in the affective relationships and the way they are related to the perceptions of empathy in students of the Social Education course allows to reflect on the personal and social development of the same, drawing lessons for training.

2. Purpose of the study

The research proposes to know the relation between the perceptions of conflict resolution strategies (in the dating situation) and perceptions of empathy of undergraduate students in Social Education and to what extent they are influenced by sociodemographic variables (gender and age) and year of course.

3. Methodology

3.1. Design and investigation procedures

This is a non-experimental and cross-sectional study involving students from two Portuguese Higher Education Institutions of the three years of the degree in Social Education that took place during one academic year. Statistical analyzes were developed using the *Statistical Package for Social Sciences* (SPSS) version 24. The investigation followed confidentiality procedures and ethical rules.

3.2. Participants

The sample is of convenience and included 242 students of the Public Higher Education degree courses in Social Education, of which 124 (51.2%) are students of an Institution of the north of Portugal and 118 (48.8%) of a Congener Institution of the central region. It consists of 25 (10.3%) young males and 213 (89.7%) females. Regarding the age groups, 119 (49.2%) were 21 years old or less and 123 (50.8%) were over 22 years old. The mean age is 21.6 (± 3.77 SD) years. In total, the two institutions participated respectively with students of the first, second and third year of the course: 90 (37.2%), 80 (33.1%) and 72 (29.8%).

3.3. Instruments for data collection

Among the instruments used is the *Conflict in Adolescent Dating Relationships Inventory* (CADRI), of 70 items, developed by Wolfe, Scott, Reitzel-Jaffe, Wekerle, Grasley and Straatman (2001), adapted to the Portuguese population by Saavedra, Machado, Martins and Vieira (2011) which includes two subscales that evaluate respectively; strategies (abusive and non-abusive), conflict resolution in courtship, one's own and the other. And yet, the *Interpersonal Reactivity Index* (IRI, Davis, 1980, 1983), of 24 items, in the Portuguese version of Limpo, Alves e Castro (2010) that is constituted by a cognitive dimension (subscale *perspective taking*) and an affective dimension (subscale *empathic concern, personal discomfort and fantasy*). A questionnaire was also used to identify sociodemographic data.

4. Results

In the case of results related to conflict resolution strategies in the courtship of one's own and the other (CADRI), significant differences were found in the use of physical violence, and it was found that more men report violent partner behavior (p = .003). However, there were no differences when each of them (men and women) referred to their behavior. Regarding sexual violence, men assume that they have more abusive behavior towards women (p = .000), the same does not happen in their perceptions of their partner. In physical violence, older students (over 21 years of age) report that they are subject to more abusive behaviors by the partner (p = .021), and there are no differences, according to age, regarding the behavior of the partner. Regarding non-abusive strategies, women report a greater number of this type of action by the partners (p = .008). In abusive and non-abusive conflict resolution strategies there are no significant differences between the younger and older students. Also for the academic year no significant differences were found among the students of the three years of degree.

Regarding the results of empathy perceptions (IRI - subscales) by gender, there were significant differences in *empathic concern* (p=0.000), *affective dimension* (p=0.001) and *overall result* IRI (p=0.000), where the girls obtained higher values. Regarding the age categories (≤ 21 years and ≥ 22), there were no significant differences in the *overall result* IRI or in the partial values of empathy - subscales. If we look at the academic year, we found that there were significant differences in the subscale of *empathic concern* (p = 0.38), with differences occurring between the 2nd and 3rd grades. year, with higher values in the 3rd year.

Finally, with respect to the results of the two Scales (CADRI and IRI), there were positive and significant correlations between non-abusive / positive conflict resolution strategies, from the self and the other, and the affective dimension (respectively, rho = .255, p = .000 and rho=.234, p = .000), as well as the full scale of empathy (respectively, rho = .269, p = .000 and rho = .234, p = .000). It was also observed the existence of negative correlations, of low intensity, but significant, between the cognitive dimension of empathy (subscale perspective taking) and abusive strategies related to the behavior of sexual violence itself (rho = -.139, p = .031), emotional violence (rho = -.227, p = .000) and total abusive behaviors of himself (rho = -.271, p = .000) and of the other (rho=-.129, p=.045).

5. Conclusion

The positive and significant correlations between the non-abusive conflict resolution strategies and the empathy perception are highlighted in the results, insofar as they point to the importance of promoting, from the point of view of formation, the activation of essential skills of relational and sociocognitive nature, essential to the future exercise of the profession. The accomplishment of this objective must be based on the valuation of collaborative methodologies, in the production of knowledge, that call and involve the students, in a critical-reflective perspective, for the resolution of practical problems.

This line of research is part of a strategic axis of higher education and methodologies for education and human development (Ribeiro, Amante, Martins, Felizardo, Fernandes & Xavier, 2016). The results presented here constitute a set of evidences with significance for the purpose of proposing strategies to allow for improvement, both in the curriculum of the degree, specifically in the content of some curricular units, and also to the perspective of the strategies, with impact on the learning, personal and social development of trainees, which is in accordance with the scientific literature in this field (Astin, 2003; Chickering, 2010; Pascarella, 2006).

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APPLICATION OF TWO APPROACHES: ABA & TEACCH WITH AUTISTIC CHILDREN IN MOROCCO

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Abstract

Treatment and Education of Autistic and related Communication-handicapped Children (TEACCH) is a less known approach in Morocco. On the other hand, Applied Behavioral Analysis (ABA) used in some isolated cases or in some institutions but without rigorous methodological supervision. The objective of this present work is to establish a strong and adequate educational program for children with autism in Morocco using a method inspired by two different approaches ABA and TEACCH.

The research conducted in a period of one year pre-school. Ten students participated in the research, diagnosed with autism by health professionals (child-psychiatrist neuropsychologist and child-psychologist), participated in the research. At the beginning of the project the group included three girls and seven boys, all aged between 5 and 15 years. Divided into three groups: group 1 where educators are trained in ABA and TEACCH methods and parents participate in the program; group 2 where the educators who participated are also trained, but without parental involvement; and finally group 3: untrained teachers and parents who did not participate in the program. Subsequently, we carried out the first evaluation with valid and complementary tools: PEP3 and CARS, in order to establish an individual educational program (IEP) based on the TEACCH and ABA approach. The results are presented as scattergrams with symbols representing individual data points and the horizontal lines representing the mean for each group. Showed a marked improvement in the cognitive, mental and behavioral skills of autistics. A variance in the mental development of these children in descending order were noted: Group1> Group2> Group3 and it has been found that the youngest children have a greater variance in mental development than older children. It deduced that a high efficiency by the child depends on the participation and the active accompaniment of the parents and especially of the specific training in (TEACCH, ABA) for the educators. Moreover, that age can influence learning flexibility, not to mention the influence of the type of autism and IQ of each child.

Keywords: ABA, TEACCH, autistic children, educators, parents.

1. Introduction

Autistic spectrum disorder (ASD) is a common developmental disability that usually is diagnosed in young children during the first 3 years of life. Autism spectrum disorders (ASD) is a complex neurodevelopmental disorder characterized by difficulties in social and interpersonal communication, combined with stereotyped and repetitive behaviors and interests (American Psychiatric Association [APA], 2013). Worldwide there is an obvious increase of ASD in young children (Fortea et al., 2013a; Nygren et al., 2012), although the statistics vary due to differences in how autism is diagnosed in other countries. There is considerable variation in the severity of autism and its impact on development. The term *spectrum* is used because children with autism differ widely from one another. Some children with autism may be able to read and perform academic skills close to grade level, while others will have considerably more severe cognitive problems. Some children with autism are fluent speakers, while others may be nonverbal. Although there is a very substantial body of research on the treatment and education of these children (Rumsey et al., 2000). Many treatment approaches and demonstration projects have disseminated information, yet most have not yet provided appropriate, scientifically rigorous documentation of effectiveness and efficiency. While research in developmental psychology, child psychiatry, and pediatric

neurology become increasingly well integrated, there is a need for more effective communication between professionals in these disciplines and the educators and other professionals who carry out the bulk of treatment and intervention-oriented research.

There are difficulties when testing young children, these difficulties include inconsistency of responses, lack of a standard preschool curriculum for young children, short attention spans, lack of uniform access to instruction, reliance on language, and expected compliance with instructions (Willis& Dumont, 2005). While a research indicated that, the IEP process is more effective when general education teachers are involved in meaningful collaboration as part of the educational team (Shick, 2007). These high prevalences directly affect the need for early intervention and the design of effective programs (Fombonne, 2009) because of the direct correlation between early intervention and a positive prognosis (Schertz, Baker, Hurwitz, & Benner, 2011). Otherwise, The factors influencing the parents' decision about what method to follow are usually the recommendations of others, practical issues, effectiveness of the intervention, and proven scientific evidence they do agree that these children should receive treatment, the sooner, the better (Escandell et al.,2015). In addition, behavior analysts would argue that (Leaf et al., 2016), should recognized that a more eclectic approach than ABA does not, or should not, exclude it. A lot of treatment approaches have been developed for ASD, which attempt to reduce the symptoms of the disease and help autistic children to function in the least restrictive way in their daily, academic and social life and to improve their cognitive abilities and to reduce the typical repetitive behavioral pattern and to develop their full capacities. However, the fact that there are scientifically supported methods, parents continue to resort to methods with scarce validity, without the guarantee of research, and involving expensive, long, and in many cases, dangerous interventions (Matson et al., 2013). Our aim of this present work is to establish a strong and adequate educational program for children with autism in Morocco using a method inspired by two different approaches ABA and TEACCH.

2. Materials and methods

Ten students participated in the research, diagnosed with autism by health professionals (child-psychiatrist neuropsychologist and child-psychologist). The group included three girls and 7 boys, all aged 5 to 15 at the start of the project. The students participating in this research were grouped by the school at the beginning of the 2016/2017 school year, as they had specific communication needs. To do this, we worked with the president of the association and the educators, to write a clear statement, indicating what would be involved in the research and know their right not to participate if they did not wish. In addition to this, all parents have informed them of the nature of the research and asking for their consent. Data was collected initially using a data collection form with child and family demographic information and the autism treatment assessment checklist, and then we performed the first few evaluation days later. For this, we used valid and complementary tools: Psychoeducational Profile, Third Edition (PEP-3) and Childhood Autism Rating Scale (CARS), Then, after the first test of children, we spoke with their parents to get to know them better, as well as the daily life of each child. In order to assess the level of development of each child. Finally, to make an individual program based on the TEACCH and ABA approach.

An important element of the approach to teaching and learning in the classroom is that the day divided into a series of activities rather than lessons. In practice, this means: a growing focus on practical tasks, less emphasis on worksheets, more individual teaching and activities described using real-world language. In addition, a pre-intervention assessment organized for each child and current behaviors both at home and at school with regard to severity and frequency listed for the intervention. a post-intervention Mother / Teacher, and follow-up assessment was also organized for each child. Moreover, we had several rooms used; the room space of one of the classes included a kitchen area and a table for meals, as well as a more informal space with sofas and an open carpet area that could be used for recreational purposes, and other room for teaching. The manual used by staff to guide teaching is based on two main approaches: TEACCH (Mesibov et al., 2005), and ABA (Lovaas, 2003).

The school takes care of children from 8:30 to 12:00: followed by lunch until 13:00, a break between 13:00 and 14:00. The school starts again from 14:00. At 3:45 pm Monday to Friday. On Wednesdays, the time is 9:00 to 11:45. The schedule of the day is precise. The student consults his schedule adapted to his level. We choose in morning all activities need intelligent and concentration and using more cognitive (ex: verbal performance) than the afternoon activities which use more sportive side (ex: motor/global motricity), and we give a break of 5 min between every activity to the child. Above is an example of the daily schedule, showing the progress of activities (Table1). Our research has been to adapt their school activities to the particularities of their vision. We hoped to promote perceptual development and organization, which is necessary in cognitive development and therefore in learning.

Table 1. Example of a course timetable of TEACCH & ABA approach.

Duration 09h-12h	15 min	15 min	15 min	15 min	15 min	15 min
DOMAIN	IMITATION	PERCEPTION	HAND-EYE COORDINATION	PERCEPTION COGNITIVE	VERBAL COMPETENCE	SOCIABILITY
Types of Activities To do	Activity	5 Activity	5 Activity	5 Activity	5 Activity	5 Activity
Duration 14h-16h	15 min	15 min	15 min	15 min	40 min	
DOMAIN	AUTONOMY	GLOBAL MOTRICITY	FINE MOTRICITY	BEHAVIOR	FREE TIME	
Types of Activities To do	Activity	5 Activity	5 Activity	5 To change	Free of choice On activity	

3. Results and discussion

Figure 1. The evolution of the mental age of the child in t1 and t2.
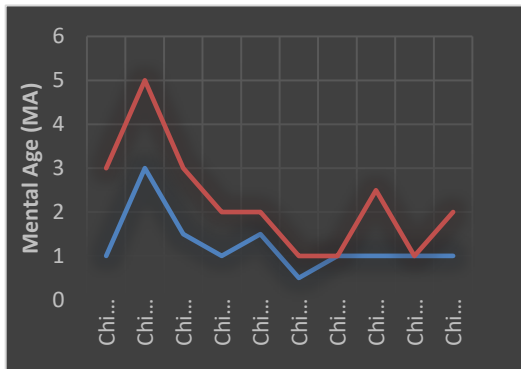
Figure 2. Child mental age evolution (12 months) (t1-t0)

Figure 4. Development of Mental age for each child per child per his physical age his duration made in every curriculum.

Figure 3. Development of mental age for each.
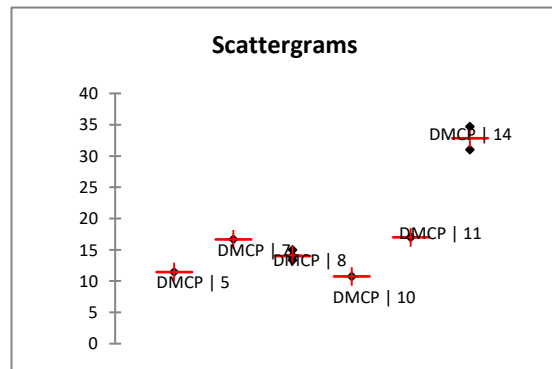
Figure 5. Development of mental age for each child per the participation of parents or not and educator trained or not
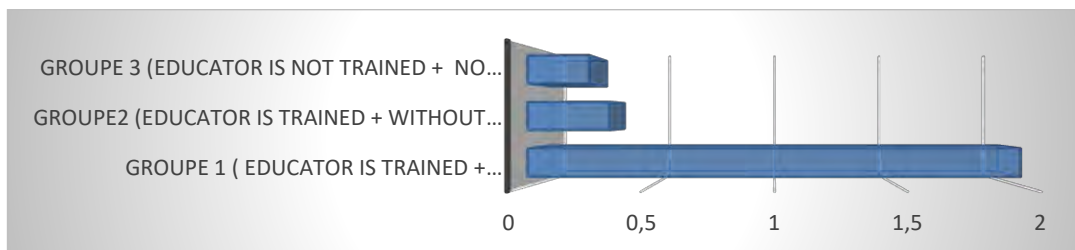
The increased prevalence of ASD has resulted in more classrooms using ABA methodology and more teachers and paraprofessionals receiving training on it (Carr, Howard, & Martin, 2015). Moreover, an early TEACCH intervention study of the benefits of structure, the group consisted of five children with autism, ranging in age from 4 to 8 years. Schopler (1971), resulted that children with lower developmental functions became more disorganized the less structure they had and, children responded better to structure than unstructured conditions (Mesibov et al. 2005). The same thing we saw with our group of children with autism, there are children who developed quickly, and others who are developed in a very long way, and others who are not perfectly developed. (Figure 1; 2) but in generally Parents observed a marked beneficial change in their child's behaviour and their skills. Also, we remarked less stress in children, educators and even parents. Another study using TEACCH, looked at the skills, negative behaviors, and satisfaction of the families of six adults with autism 18 months (Van Bourgondien et al,.2003).

Moreover, a study showed a significant increase in fine motor skills, decreased maladaptive behavior, increased independence, measurable increases in visual receptive skills, improved parental teaching skills, and marked decreases in parental distress (Welterlin , .2009). In addition, a results significantly indicated a better developmental progress and fewer maladaptive behaviors in both groups in which TEACCH techniques used (Panerai et al., 2002). In addition, Otherwise, Short (1984) his study showed Non-significant trends toward decreased inappropriate behavior and decreased parental stress reported, but the parents rated the effectiveness of treatment very positively. In our studies, younger children have a greater variance in mental development than older children. Which means that age can influence learning flexibility. Not to mention the influence of the type of autism and IQ of each child (figure3). Age also appears as an important factor. Harris and Handleman (2000) conclude that children who start treatment before the age of four years have better earnings than those who start afterwards. Also, Fenske et al. (1985) compare two groups of children (group <5 years & group> 5 years) and confirm these results. Yet, we found that the youngest children have an average length of time for each program less than the older ones. This means that the youngest children have great learning flexibility, not to mention the influence of the type of autism and IQ of each child (Figure4).

Families are essential partners in the education of children with autism (US Department of Education, 2004). One essential component in effective family/school partnerships is for parents and teachers to openly share their concerns and come to consensus about prioritizing (Esquivel et al., 2008). According to Spann et al. (2003), parents and teachers communicate to exchange information related to the child's needs and performance, and stay informed, and brainstorm strategies to resolve problems that arise at home or school. In our study we found that the variance of children's mental development in decreasing order respectively is: group 1 where educators are trained and parents participate in the program; group 2 where, the educators who have participated is already trained without parental involvement; and finally the educators not trained and the parents didn't participate in the program. Which means that to have a high performance by the child it is necessary that the educator and the parents work together as a one team (Figure5). The cost of a training outweighed by the benefits in educational improvements for the child, improved quality of life for both the child and the caregivers, reduced care costs in later years, and improvement of the educational environment for teachers and fellow students (Maurice et al., 1996). The importance of specialist training can't be overemphasized as children with autism require a specific curriculum to reduce the global deficits characteristic of autism, but they required a specialist training which incorporates supervision, coaching, technical assistance, feedback and support in ABA (Scheuermann et al., 2003), or TEACCH or any other approaches. Furthermore, a prior research showed the importance of establishing and maintaining a collaborative partnership between families of children with autism and schools on theoretical grounds (Blair et al., and 2011). Another study found that professionals were concerned about outwardly behaviors, while parents worried about behaviors commonly associated with autism such as deficits in social skills (Dillenburger et al,. 2010). Thus, we found a strong harmony by combination of the tow approach in the same time ABA & TEACCH like what the study of (Callahan, et al,.2010) reports that special education teachers, parents, and therapists observe that the combination of ABA and TEACCH favors the development of people with ASD.

4. Conclusion

The sample, which we used, is not enough but however that we see the positive effectiveness of the both approaches in the autistic child. Our goal is to establish a Moroccan version approach inspirit from TEACCH & ABA, These programs may change the future for special-needs kids (autistic children). We try that these experiments prove successful; they may change the future of autism education.

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ADAPTATION OF INFANTS TO THE CONTEXT OF DAY CARE: THE IMPORTANCE OF COMMUNICATIONAL GRAMMAR

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Abstract

Day care has a socio-educational nature that should be provided to children as it leads to their overall development and well-being. Enrolment of an infant in this context provides access to situations which differ from those within the family setting. This calls on resources of adaptation on the part of small children, families and professionals. In the nursery, the infant's day is organized around educational experiences and permanent care that are unique moments to promote didactic interactions and diversified learning. The aim of this research is to identify the strategies and procedures used in the context of the nursery to promote infants' adaptation and well-being. Interactions between infants (aged 6 to 11 months) and two professionals (at reception, departure and during routine care and education), as well as with family members (upon arrival at the nursery and on returning home), were observed. The professionals were also inquired regarding the strategies used for infants' adaptation in this context with a view to promoting their well-being. It is a qualitative and exploratory study with recourse to direct observation and semi-structured interview. The strategies used to promote adaptation which emerged from the observations made were triangulated with the results of the interviews. The following results as regards valued strategies have been highlighted: *emotional literacy* (the professional's adaptation of responses to the infant's individuality, the professional's socio-affective skills); *communication with the family* (the exchange of information, harmony of procedures, transactional objects) and *type of communication* (verbal and nonverbal). The results show the importance of using a *communicational grammar* to safeguard the infant's adaptation process to a new socio-educational context nature, consequently helping to promote well-being.

Keywords: Day care, infants, adaptation strategies, communication.

1. Introduction

Day care is as an educational and social response where situations appropriate for children's overall development and well-being should be provided (Pinho, Cró, & Dias, 2013). Young children's education involves two complementary and inseparable processes, care and education (Bujes 2001, CNE, 2011). As advocates the National Education Council (CNE, 2011), Day care centres must have an educational purpose and create the conditions for children to undertake activities that will develop them. For Portugal (2011), Day care is an exciting context which promotes autonomy; where levels of well-being and children's involvement must be high; where attention is paid to the child's experience. For this, quality in the care provided is required. It is generally agreed that educational care provided to children at these ages is vital and has a real impact on their future development. Therefore, quality in this context has increasingly been considered a priority in all Western countries (Pimentel Carreira, Gandres, & Barros, 2012).

The child's first days in Day care are recognized as fundamental, as are the experiences and strategies promoted to promote their adaptation. According to Rapoport and Piccinini (2001), studies have shown that mothers and educators report that the first weeks of enrolment in this context are particularly stressful for infants and small children. In these early days, they will face an unfamiliar environment, food, new routines, people who are not family; all of this creates new social and emotional demands (Rapoport & Piccinini, 2001). The Day care centre will thus enable new contacts to be established, new experiences and personal resources (Amorim, Vitoria & Rossetti-Ferreira, 2000). So, enrolment in this context allows infants and their families to be inserted into a completely new physical, social, ideological and symbolic environment. It is therefore essential to take into account how receiving children and their families is carried out, in order to foster mutual knowledge and trust. It is also important to understand what the role of professionals in this process is, in order to favour the adaptation of infants and to establish ties with the family.

2. Purpose of the study

To recognize the relevance of the child to Day care adaptation processes, this investigation proposes to identify strategies and procedures used in the context of Day care to promote the adaptation of infants.

3. Methodology

3.1. Research design

This qualitative and exploratory study was held for seven months and involved direct contact with a Day care centre (more specifically a nursery room) located in a northern district of Portugal. This is a qualitative investigation such that the data is collected directly in the natural environment, which means it is rich in "descriptive phenomena related to people, places and conversations" (Bogdan & Biklen, 1994, p.16).

3.2. Participants

Three girls, aged between six and eleven months, were observed specifically interacting with professionals within the scope of the following situations: reception, being returned to their parents, and daily routines. Selection of the infants resulted from the fact that they were enrolled for the first time in the nursery which allowed us to follow the procedures and strategies for throughout their adaptation. The two adults observed have educational training and have worked for more than twenty years in the field.

3.3. Instruments for data collection

We used direct observation, an essential method "subordinated to the service of the subjects and their complex process of assigning real intelligibility, providing the empirical data needed for further critical analysis" (Dias, 2009, p. 176). Naturalistic observation protocols were used for registration purposes. The survey by interview technique was also use, to allow us to collect descriptive data "enabling the researcher to develop an idea intuitively of how subjects interpret aspects of the world" (Bogdan & Biklen, 1994, p.134). The semi-structured interview script used in this study included eight questions divided into two topics; *i)* procedures and strategies in infant adaptation and *iii)* adaptation and interaction with the infant. To process the data collected in the naturalistic observations and interviews we used emerging categorical content analysis.

4. Results

From the twenty-eight direct observations carried out during different times; receiving the infant, returning the infant to parents and routine care and education (rce), we were able to observe the emergence of the following categories: *emotional literacy, communication with family, type* of *communication* (shown in Table 1).

Table 1. Results of naturalistic observations: procedures used in adaptation.

Categories	*Subcategories*	*Example of indicators*
1. Emotional Literacy	*1.1. To each infant's individuality*	*The professional walks about holding the infant in her arms (rce)*
	1.2. Socio-affective skills (listening, availability)	*The professional sat in a chair holding the infant in her arms (rce)*
2.Communication with the family	*2.1. Mutual information (before the enrolment, beginning and end of the day, digital communication)*	*The professional asks what time the baby was fed and registers that (reception)*
	2.2. Harmony in procedures (timetable, feeding, sleeping)	*During the day the professional registers the infant's feeding and baby cleaning (rce)*
3.Type of communication	*3.1. Verbal (tone of voice, songs)*	*The professional walks about holding the infant in her arms, speaking in a calm tone of voice and sings to it (rce)*
	3.2. Non-verbal (touching, hugging, changing location)	*The professional picks up the infant, hugs it and then places it on her mother's lap (returning)*

Secondly, it was possible to triangulate the data shown in the naturalistic observations using the interviews. It is worth noting that they reinforce the existing categories. Thus, besides the confirmation of the above categories with the additional new evidence/indicators, two new subcategories were included; *knowing how to read the child* (in the *emotional literacy* category) and *transitive object* (in the *communication with the family* category), neither of which were captured in the course of direct observations (Table 2).

Table 2. Results of the interviews: procedures used in adaptation.

Categories	Subcategories	Example of indicators
1. Emotional Literacy	1.1. Knowing how to read the child	If we look at the child, it is very easy to read it at first (when they enrol we need approximately a week and very little to be able to do it)
	1.2. Adapting responses to the individuality of each infant	There are children who really need to be near us, to feel our warmth, to feel our skin, to feel the beating of our hearts; there are others who do not
	1.3. Socio-affective skills (listening, availability)	Attention, which is fundamental, affection, touch, speaking softly, or reassuring them and being very patient at feeding time
2. Communication with the family	2.1. Mutual information (before enrolment, at the beginning and end of the day, digital communication)	Every day we make computer records of how the child spent the day, if it slept well, if did not eat well
	2.2. Harmony in procedures (timetable, feeding, sleeping)	They must be given lunch at that time, until they are cleaned up
	2.3. Transitive object (nappy, teddy bear, etc.)	Another key thing it is to bring something from home with the mother's scent
3. Type of communication	3.1. Verbal (tone of voice, songs)	The best way to talk to children is first of all never to talk loudly
	3.2. Nonverbal (touching, hugging, changing location)	It is to provide attention, cuddle and hold

5. Discussion

Under the procedures and the nursery's adaptation strategies, our results show the importance of *communicational grammar*, which can be defined as a set of rules, and principles that facilitate communication and without which interactions do not produce the desired effect from the standpoint of educational intentionality (promotion of learning). These rules indicate the professional's communication skills (portrayed in the categories of *emotional literacy* and *type* of *communication)* as essential for adaptation to occur, or rather so that communication materializes and the educational relationship can be established effectively. Both categories have relational demands that require specific training of the professionals. These are skills associated with implementing the educational relationship, expressed in the empathic understanding of the infant's needs. It is about understanding these basic needs and being able to provide structured and consistent responses (of a verbal and nonverbal nature), which act as catalysts of the relationship. If the infant at this age (6 to 11 months) has not spoken (oral language), it is crucial that the educator understands the signals it uses to express itself, in order to meet the *Alpha* function, proposed by Bion, of support for the organization of thought (Fochesatto, 2013). The professional thus places communication and development at the heart of their work with infants simultaneously respecting natural learning strategies.

6. Conclusions

The results of this research show the importance of communication in the infant's process of adaptation to the Day care centre and in particular, what we have called *communicational grammar* to appreciate the teacher's specific skills in this process.

In Portugal, Day care centres and other solutions for children under three years of age depend on the Ministry of Labour and Solidarity. As such, curricular and pedagogical guidelines for this age group do not exist at the time of this communication, since the Ministry of Education does not oversee the work

performed in this area. One way to ensure and sustain the quality of education in these contexts involves defending pedagogical reference mechanisms that, in terms of backing practices to be developed, support a common language among professionals in the defence of quality interactive processes to foster the rights of small children to learn (Ribeiro, 2013). It also involves, as we have seen, ensuring conditions essential to the educational relationship, valuing the role of professionals working in the field and understanding them as key to safeguarding the processes of adaptation.

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MENTORING RELATIONSHIP, EXISTENTIAL WELL-BEING AND PERCEIVED PARENTAL SUPPORT AMONG ADOLESCENTS

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Abstract

The aim of this contribution was to explore an association between a mentoring relationship and selected internal (existential well-being) and external (perceived parental support) variables among middle and late adolescents, controlling for age and gender.

177 students (53% of girls; $M_{age}=16.92$, SD=1.69) of 2 high schools from eastern Slovakia participated in the research. Subscale of the existential well-being from the Expressions of spirituality inventory (MacDonald, 2000) was used. Parental support was measured by the Resilience and youth development module questionnaire (Constantine, Benard, Diaz, 1999). Single items were used for the measuring of age, gender and the existence of the mentoring relationship. Logistic regression was used for the data analysis. An interactional effect of the age and the independent variables was also verified.

The first model was significant (X2=29.3; df=4; p<0.001) and explored between 16.7 and 22.5 % of the variance of the dependent variable. The perceived parental support, the existential well-being and the age of adolescents in the sample were significantly associated to the mentor relationship. Gender was not significantly associated to the mentoring relationship.

Interactions of existential well-being, perceived parental support and age were added to the second model. The model was significant (X2=40.57; df=6; p<0.001) and explored between 22.4 and 30.1 % variance of the dependent variable. Older adolescents who reported higher level of the parental support and younger adolescents with higher level of the existential well-being were more likely to have the mentoring relationship. Gender was not associated to the dependent variable.

The results support the knowledge about the positive impact of mentoring on family relationships and existential well-being of adolescents. Benefits of the mentoring relationship can be different considering the age of the adolescents. Formation and realization of mentoring programs should be taking into account developmental specifics of adolescence.

Keywords: Mentoring relationship, existential well-being, perceived parental support.

1. Theoretical background

1.1. Adolescence – the period of negative emotions

Mentoring relationship is defined as relationship between child or adolescent and carrying, supportive non-parental adult (Rhodes & Lowe, 2008). Positive consequences of mentoring were found in the area of attitudes, health, relations – family bonding, school bonding, motivation, career outcomes, life skills, self-efficacy, school performance, and emotional regulation (Zand et al., 2009; Eby, Allen, Evans, Ng, & DuBois, 2008; Jucovy, 2003), predictors of positive youth development. According to Beam, Chen and Greenberger (2002) adolescents engage in an increasing number of natural mentoring relationships. Two forms of mentoring relationship are being explored - formal and informal mentoring. Formal mentoring occurs on institutional mentor (Miller, 2007), informal mentoring relationship takes place in natural environment of child or adolescent and develop spontaneously (Mullen, 2007; Rhodes, Ebert & Fischer, 1992). According to several authors prevalence of natural mentoring is higher (Spencer, 2007; DuBois & Silverthorn, 2005).

Adolescence is a period of heightened emotions, often negative such as depression and anxiety (Dahl, 2004; Jessor & Jessor, 1977). The entry into adolescence may be associated with an increase in stressful or negative life events (Larson & Ham, 1993; Larson & Sheeber, 2008). Furthermore, adolescents may not yet have developed the skills for regulating the powerful emotions that accompany these stressful events (Chambers, Taylor, & Potenza, 2003; Dahl, 2001). These facts affect the existential well-being of the individual. MacDonald (2000) defines existential well-being as positive existentiality,

sense of meaning and purpose of existence. It is self-reported competence of the individual to face difficulties of life and limitations of self. includes existential well-being, that has its special expression in adolescence, among spirituality factors. Holmes, Roedder & Flowers (2004) found, that relationship with significant adult was instrument for student's perception of meaning of their life experiences.

The aim of this contribution was to explore an association between a mentoring relationship and selected internal (existential well-being) and external (perceived parental support) variables among middle and late adolescents, controlling for age and gender.

2. Aim and methods

Research sample consisted of 177 high school students (53% of girls; M_{age}=16.92, SD=1.69), from eastern Slovakia. Sample was selected by willingness of school leadership to cooperate in the research. From the total sample 70 of students (39.5%), reported existence of the mentor relationship.

Existence of mentor was examined by signle item measure supplemented by a note about the mentor relationship definition. The definition of mentor relationship was following:

Mentoring relationship = this is the relationship between you and adult, who is not your parent of someone who brings you up. It is someone you can go to if you need support, leadership and advice, someone who inspires you, encourages you to try your life as best you know.

For the examination of existential well-being, a Slovak version of „The expressions of spirituality inventory - revised version (MacDonald, 2000; Stríženec, 2007) was used. 6 items were assesed on 5 point lickert scale (strongly disagree – strongly agree). The items are negatively formulated. Reliability (Cronbach α) of the subscale in our sample was 0.786.

Perceived parental support was examinged by Resilience and Youth development module questionnaire, that examines external factors of resilience (Hanson & Kim, 2007). Support from parents consisted of variables of perceived caring relationships and high expectantcies from adults (Constantine, Benard & Diaz, 1999). 26 items explored support from parent and from mother was assessed on 4 point lickert scale. Item examples: „My mother (father) really cares about me", „My mother (father) who always wants me to do my best". Reliability (Cronbach α) of the subscale in our sample was 0.955.

Logistic regression was used for the data analysis by statistical software SPSS 21. An interactions of existential well-being, parental support and age were also verified.

3. Results

In the first model, independent variables - existential well-being and parental support and controlled variables – gender and age of adolescents, in the relationship to existence of mentor relationship.

Model of logistic regression was significant (X^2=29.3; df=4; p<0.001) and explored between 16,7 and 22,5 % of the variance of the model. Having a mentor relationship was associated with higher level of existential well-being and lower level of parental support (Table 1). Adolescent with higher age were also more likely to have a mentor relationship. Gender was not significantly associated to the model.

Table 1 An association between having a mentor relationship, existential well-being and parental support.

	B	S.E.	Sig.	Exp(B)	95% C.I.for EXP(B)	
Gender	.362	.364	.320	1.436	.704	2.930
Age	*.349*	*.108*	*.001*	*1.418*	*1.149*	*1.751*
Existential well-being	*.092*	*.041*	*.025*	*1.097*	*1.012*	*1.189*
Parental support	*-.027*	*.009*	*.004*	*.974*	*.956*	*.992*

3.1. Model with interactions

In the second model, interaction of independent variables and controlled variable - age was added. Model was significant (X^2=40,6; df=7; p<0,001) and explored between 22,4 and 30,1% of the variance of the model. Having a mentor relationship was positively associated with interaction of age and parental support and negatively associated to interaction of age and existential well-being. Controlled variable - gender were not significantly associated to the dependent variable.

*Table 2. An association between having a mentor relationship, and interaction of age - existential well-being and age - parental suppor*t.

	B	S.E.	Sig.	Exp(B)	95% C.I.for EXP(B)	
Gender	.498	.379	.189	1.646	.783	3.460
Age	1.013	.692	.143	2.753	.709	10.689
Existential well-being	*1.622*	*.513*	*.002*	*5.064*	*1.854*	*13.831*
Parental support	*-.257*	*.114*	*.025*	*.773*	*.618*	*.968*
Age*parental support	*.013*	*.006*	*.043*	*1.013*	*1.000*	*1.026*
Age*existential well-being	*-.088*	*.029*	*.002*	*.916*	*.865*	*.969*

4. Discussion

The aim of this contribution was to explore an association between a mentoring relationship and selected internal (existential well-being) and external (perceived parental support) variables among middle and late adolescents, controlling for age and gender.

According to results, existential well-being, perceived parental support and the age of adolescent are significantly associated to the existence of mentor relationship. Having a mentor is associate to the higher level of existential well-being among younger adolescents. Parental support negatively associated to mentor relationship also among younger adolescents.

The results support the knowledge about the positive impact of mentoring. In adolescence, significant change occurs in relationship with parents. Social world expands, new settings (educational, out-of school and workplace) – extrafamiliar relationships (Arnett, 2004). Deidealisation of parental figures naturally comes.

Benefits of the mentoring relationship can be different considering the age of the adolescents. Studies found, that mid-aged adolescentes perceive less support from their parents (Helsen, Vollebergh & Meeus, 2000; Laible, Carlo, & Raffaelli). Other authors also state that a mentor relationship can positively influence family relationships by promoting effective communication and posing on attitudes on parental behavior (Rhodes, Grossman & Rench, 2000). Formation and realization of mentoring programs should taking into account developmental specifics of adolescence.

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TODAY'S CHALLENGES AND DEVELOPMENT OF STUDENT AUTONOMY IN THE SOCIAL EDUCATION DEGREE PROGRAMME

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Abstract

The challenges of our time, in particular the social changes and the proliferation of problems of more highly fragile groups and social exclusion, indicate a need for professionals in the field of pedagogy and education social. The social educator is a mediator of the relations and inclusion of people and groups in their life contexts. This line of research raises the need to reflect on their skills profile, along the lines referred to by AIEJI (2005), who considers the relational and personal skills of the social educator, fundamental tools in social educational work to implement responses and strategies that foster human development. In this context, it is necessary to understand the changes and the processes involved in social education students' psychosocial development as a result of their experiences in higher education, and thus tailor educational programmes to optimize student development. This study is part of a broader line of research on the students' process of maturing, in order to promote changes in the curriculum and teaching methods in the degree in Social Education at Viseu School of Education, in the Polytechnic Institute of Viseu, Portugal. The general aim was to analyse the autonomy (and dimensions) of the social education students, finding the extent to which these very depending on the following variables: year of the course, participation in extracurricular activities and investment in academic activities, with the further aim of designing action strategies which promote autonomy. It is a non-experimental, cross-sectional study with a non-probabilistic, convenience sample of 127 students from all three years of the course. The results show significant differences in the overall results in terms of autonomy as well as for the subscales Mobility, Time Management and Money Management, among the students in the 1st and the students in the 2nd and 3rd years, reflecting improvements in autonomy throughout the course. We also found significant differences in the overall values of autonomy and most of the subscales, due to the perception of investing in academic activities and the perception of participating in extracurricular activities. Reflecting on the results led us to design intervention strategies to promote student autonomy.

Keywords: Autonomy, students, social education, higher education.

1. Introduction

1.1. Higher education in contemporary societies

Contemporary societies are characterized by rapid and constant change. Reality is increasingly unstable and complex and, consequently, people manifest difficulties in dealing with the socio-cultural and technological changes. The efforts made by quality education is an important contribution towards a better adjustment to the changes. In this context, higher education is in a key position, both nationally and internationally, as a powerful instrument promoting the construction of knowledge societies that are modern, democratic and inclusive. In this regard, the World Conference on Higher Education - vision and action in the twenty-first century (UNESCO, 1998) emphasizes the concept of multidimensional quality of higher education that includes all of its functions and activities (education, programmes, research, resources, students, infrastructure and academic context). Following this line of thought, higher education needs a new mission and a new model that is more focused on the student. To achieve this goal, it is essential to redesign curricula and teaching strategies, to emphasize communication skills and attitudes, critical thinking skills and teamwork in multicultural context.

The World Bank Group (WBG, 2015) points out that the quality of higher education can be an important driver in building stronger societies, contributing to alleviating poverty and promoting prosperity for all. It is therefore worth highlighting its role in generating knowledge and basic and advanced skills, as part of its "third mission." Chickering (2010) warns of the role and responsibility of

higher education institutions in promoting citizenship, personal development and social responsibility in a constantly changing global society. Despite this mission, there is still a long way to go to make higher education more equitable where students participate more democratically, regardless of their cultural, ethnic and other personal characteristics, and family and social differences.

Among the various issues facing the impact of higher education in developing students there has been, in recent decades, the issue of researchers' attention, especially the effects of academic experience, not only with regard to content and teaching strategies, but also to interactions with peers. These experiences introduce students to advanced knowledge and social diversity, which enhances cognitive flexibility, critical reflection and greater openness to difference. Scientific literature highlights the powerful influence of higher education on the intellectual and personal development of young students (Astin, 2003; Gurin, Nagda, & Lopez, 2004; Pascarella, 2006; Pascarella, & Terenzini, 2005).

1.2. The impact of higher education on the personal development of social education students

The challenges of today's world, particularly the social changes and the intensification of the problems of groups of greater fragility and social exclusion, underpin the need for professionals in the field of pedagogy and social education. In this context, we highlight the role and functions of social educators (ES) as mediators of interpersonal relationships and inclusion of people and groups in their social contexts. This raises the need to reflect on their skills profile, in line with AIEJI (2005), which highlights the relational and personal capabilities of ES, viewing them as fundamental tools in social educational work, essential to implement responses and promote human development strategies.

This approach of ES as relational professionals involves the development of communication skills (Rosa Navarro-Safe, & Lopez, 2014) associated with a reflective work on their vision of the human being and the world, their rules, beliefs and values (Carvalho & Baptista, 2004). In this context, it is necessary to understand the changes and the processes involved in the psychosocial development of social education students as a result of their experiences in higher education and thereby tailor educational procedures to optimize student development.

As mentioned earlier, a core function of higher education, with a view to valuing skills and a specific professional profile, is to prepare people for active citizenship, fostering personal and social construction and to develop a solid and advanced knowledge base (Calvo, 2014; Zabalza, 2011). Scientific literature highlights the positive influence of higher education on students' psychosocial development, particularly the effect of challenging educational practices and stimulating learning environments (Pascarella, & Terenzini, 2005; Webber, 2012), participating in extracurricular activities, involvement in academic activities, the relationship with colleagues (Kuh, 2009; Pascarella, 2006; Pascarella, & Terenzini, 2005).

2. Problem and objectives

This study is part of a broader line of research on the students' process of maturing, in order to promote changes to the curriculum and teaching methods. The following research question was formulated: To what extent does undergraduate social education students' autonomy vary based on academic and relational variables, with a view to designing action strategies for their development? In this context, the following objectives were set: i) to find if there are significant differences in the levels of autonomy (and dimensions) among students in different years of the course (1st, 2nd and 3rd); ii) to analyse the levels of autonomy, according to the age categories; iii) to analyse the levels of autonomy, depending on students' perception of their participation in extracurricular activities; iv) to find the levels of autonomy, depending on students' perception of their investment in academic activities; iv) to outline action strategies to promote the development of student autonomy, taking into account the results in the autonomy dimensions.

3. Methodology

3.1. Research design

This is a non-experimental and cross-sectional study involving students from one Portuguese Higher Education Institution of the three years of the degree in Social Education. Statistical analyzes were developed using the *Statistical Package for Social Sciences* (SPSS) version 24. The investigation followed confidentiality procedures and ethical rules.

3.2. Participants

Of the participants, 55 students (43.3%) were in the 1st year, 45 (35.4%) in the 2nd year, and 26 (20.5%) in the 3rd year, with a mean age of 21.57 (±4.93 SD). With regard to the other independent variables: age categories: ≤20 years (n=68, 53.5%) and >20 years (n=59, 46.5%); level of investment in academic activities: moderate (n=88, 69.3%) and high (n=39, 30.7%); participation in extracurricular activities: null (n=33, 26%), low (n=45, 35.4%), moderate (n=31, 24.4%) and frequent (n=18, 14.2%).

3.3. Instruments for data collection

The English version of the *Iowa Developing Autonomy Inventory* - IDAI (Hood & Jackson, 1983) was used to collect the data. This is an instrument which consists of 90 items (on a 5-point Likert scale) distributed over 6 subscales (dimensions of autonomy): Interdependence (I); Parental Emotional Independence (PEI); Colleague Emotional Independence (CEI) (these two subscales evaluate the *Emotional Independence* dimension); Time Management (TM); Money Management (MM); Mobility (M) (these three subscales evaluate the students' *Instrumental Independence* dimension). In terms of internal consistency, the Cronbach's alpha is acceptable; for the overall IDAI scale the alpha was α=.84. A sociodemographic questionnaire, with questions relating to personal, relational and contextual data, designed specifically for this research was also used.

The data were analysed using the parametric techniques of the IBM statistical software, version 24.0, with a 95% confidence level.

4. Results

The results show significant differences in the overall values of autonomy (X^2_{KW}(2)=9.784, p=.008), as well as the Mobility(X^2_{KW} (2)=8.282, p=.016), Time Management (X^2_{KW} (2)=7.417, p=.025), and Money Management (X^2_{KW} (2)=9.024, p=.011) subscales, between the 1st year students and the 2nd and 3rd year students, showing improvements in autonomy throughout the course. There were also statistical differences according to the age category (≤20 years and> 20 years), in the overall values of autonomy (t(125)=-.2.514, p=.013) and Parental Emotional Independence (t(125)=-.2.159, p=.033) e Money Management (t(125)=-.2.514, p=.013) subscales (older students show greater autonomy). The literature emphasizes interdependence as a further capacity to the separation-individuation task of attachment figures (meaning there is previous development of emotional and instrumental independence); and awareness of being part of a social structure, to which it must contribute and cooperate. Therefore, institutions can create opportunities and rich experiences that promote greater self-awareness and openness in relationships with others (Chickering, 2010; Pascarella, 2006).

Significant differences were also found for the overall values of autonomy and most of the subscales, due to the perception of investment in academic activities (IDAI global score: *t*(125)=-.3.484, *p*=.001; Interdependence: *t*(125)=-.2.042, *p*=.043; Colleagues Emotional Independence: *t*(125)=-.2.131, *p*=.035; Time Management: *t*(125)=-.4.202, *p*=.000; Money Management: *t*(125)=-.2.786, *p*=.006) and perception of participation in extracurricular activities (IDAI global score: (X^2_{KW}(3)=18.274, *p*=.000), Interdependence: (X^2_{KW}(3)=8.199, *p*=.042), Parental Emotional Independence: (X^2_{KW}(3)=12.065, *p*=.007), Colleagues Emotional Independence: (X^2_{KW}(3)=13.269, *p*=.004), Time Management: (X^2_{KW}(3)=11.502, *p*=.009). Thus, institutions should provide recovery and support programmes, including mentoring, especially for young people in the first year. Teachers can make their methodologies more student-centred, creating more stimulating learning environments. A number of alternative extracurricular activities should also be created with student involvement encouraged (Pascarella, 2006).

5. Conclusion

These results are in line with the literature in the field, especially the role of investment in the academic context (Kuh, 2009), participation in extracurricular activities on the results of autonomy (Pascarella, 2006; Webber, 2012), and particularly interdependence with regard to others, the dimension associated with students' moral and civic development (Chickering, 2010). Thus, in the context of educational dynamics, Ribeiro (2013) argues that it is important to safeguard that learning the profession occurs in the context of socio-educational practice, valuing its critical and reflective dimension; that is to say, that skills that foster autonomy should be favoured in conjunction with the theoretical frameworks, observation and experimentation. This is particularly important in personal mediation professions, such as social education, where it is necessary to develop personal and social skills to exercise the profession in the complex context of contemporary societies. The results also lead us to a set of action strategies which will promote the development of maturity and autonomy in the undergraduate social education students. It

is therefore important to think about changing teaching practices from mere transmission of knowledge to an approach more focused on the student, promoting collaborative learning (Weber, 2012). According to Pascarella and Terenzini (2005), the teacher must create stimulating learning environments, which will enable cooperation among students (Gano-Overway, 2013), encouraging participation and the sharing of different perspectives and points of view. Spaces that lead to promoting social and interpersonal skills should also be created, with the establishment of extracurricular programmes and activities (both formal and informal), as well as involvement in curricular enrichment activities and relationships with teachers and among colleagues (Pascarella, 2006; Pascarella & Terenzini, 2005). Despite the contribution of this study to better understanding the development of autonomy in social education students throughout their training, further studies are needed with larger samples and longitudinal methodologies.

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DEVELOPMENT AND EVALUATION OF DIGITAL GAME KORSAN TO TEACHING OF ADDITION AND SUBTRACTION PROBLEMS

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Abstract

This study aims to present the development and evaluation of the educational game Korsan, an adapted domino game with a pirate story, based on the model of network relationships to teaching addition and subtraction problems. To this end, a paper prototype and a digital prototype of the game were assessed, exploring aspects which affect the learning, engagement, and the usability. A six years old boy served as participant of the assessment of the paper prototype. It was taught and test, through the game, conditional relations between numerals, set of dots and addition and subtraction problems with digits and in the form of balance with the unknown in positions a (?+1=2), b (1+?=2) e c (1+1=?). Although the participant had a good performance before the intervention, it was observed an enhanced performance after the sessions with the game. It was observed the maintenance of engagement on the game, but it was also observed the need of adjustments to improve usability for the digital version of the game, especially in game mechanics due to the configuration of domino pieces. For the assessment of first digital version of the game prototype, the adjustments on game mechanics were made. Four children with 7 years old served as participants. The teaching and tests were similar to paper prototype evaluation, but in this phase, only addition problems were taught. It was found a better performance in problem-solving tasks for all participants in all types of problem presentation and unknown position. The results also indicate that the game proved to be adequate to teach solving addition problems and presented adequate usability. It is suggested that including plot and aesthetic elements in future versions of the game can increase player engagement during the game. It should be noted that the participants of both evaluations already identify numerals and sets of dots until ten. For the third development phase of the game will be planned learning conditions to teach mathematics prerequisites in order to facilitate the teaching of children with difficulties and also to assess the role of the prerequisites on arithmetic learning.

Keywords: Mathematics teaching, numerical relations network, elementary school students, educational games, game design.

1. Introduction

Games are considered as a tool with a huge potential to engage learners of different ages in learning activities (Prensky, 2012). Although the use of games for teaching is widely defended by several researchers, (Gros, 2007; Hui, 2009; Kirriemuir & McFarlane, 2004), some criticism is presented with regard to teaching tools that not present theoretical basis in any theory of learning. (Ertmer & Newby, 2013; Van Eck, 2006). One alternative presented by some behavior analysts, compares traditional teaching procedures of Behavior Analysis with educational games, presenting some similarities, especially with regard to the game features which are responsible for the players' engage. (Linehan, Kirman, Roche, 2015; Linehan, Roche, Lawson, Doughty, Kirman, 2009). Recently, Brazilian studies presented the possibility of developing analogic educational games, based on analytical-behavioral principles using the models of network relationship and stimulus equivalence. (Godoy, Alves, Xander, Carmo, & Souza, 2015; Panosso & Souza, 2014; Souza & Hübner, 2010). Beyond the use of games as educational technology, the analytical-behavioral literature presents descriptions of game development based on iterative design procedure. (Perkoski, Gris, Benevides, & Souza, 2016; Perkoski & Souza, 2015).

Although the expansion of studies conducted with games, the area show a lack of precise descriptions of game assessments with regard to aspects of teaching issues, usability, and engagement. These assessments are important since it is necessary to seek evidence of the feasibility of educational games in comparison with other tools and teaching procedures (All, Castellar, & Van Looy, 2014). The aim of this study is present the development and evaluation of the educational game Korsan, an adapted domino game with a pirate story, based on the model of network relationships to teaching addition and subtraction problems. To this end, a paper prototype and a digital prototype of the game were assessed, exploring aspects which affect the learning, engagement, and the usability[1].

2. Game overview

The game was developed based on the model of network relationship and aimed the teaching of relations between numbers (A), set of dots (B) and two different ways of presentation of addition problems (with digits [C] and in balance form [D]); and between numbers (A), set of dots (B) and two different ways of presentation of subtraction problems (with digits [C'] and in balance form [D']). The models of network relationship and stimulus equivalence derive from Sidman's and his associates' research and have reported efficiency in analogic and digital teaching procedures. On Korsan game, each domino always presents two relations, as shown in Figure 1.

Figure 1. Example of one face of each domino with A, B, C, and D classes.

The chosen story was the pirate treasure hunt. According to this story, the player should help the pirate "Captain Bart" travel all maps' islands, solving challenges, that is to say, pairing correctly the domino pieces until reach the treasure trunk in each island. Each island corresponds to one pair of relations, which can be teaching or tested (e.g. numerals and set of dots = AB/BA), that is to say, one domino game. The player has to travel to the islands in the planned order, according to the teaching or test programmed.

3. Paper prototype

The prototype was formed of 11 domino games, compost by 31 pieces each, one main scenario with five islands, one game scenario representing the islands interior, one paper boat, three paper keys, one wood trunk, fictional coins and a crab toy. The game was assessed with respect to the teaching of math repertoires of addition and subtraction, its usability and the engage promoted. A six years old boy served as participant of the assessment of the paper prototype.

Figure 2. Image of the components of the Korsan game's paper prototype.

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[1] This paper compiles the information published in more details on Gris and Souza's (2016) study and on the manuscript of Gris, Souza and Carmo (submitted), and gives more emphasis to development and assessment process of the game by means of the prototypes assess.

3.1. Assessment procedure

In order to assess the teaching of addition and subtraction, some probes were conducted before, during and after the teaching and test phases of the conditional relations. In the probes phases were verified the participant's performance in addition and subtraction problems with digits and in the form of balance with the unknown in positions a (?+1=2), b (1+?=2) e c (1+1=?). These probes were conducted by means of other ludic activities, different than the Korsan game. In order to test the game as much as possible, it was decided assessed both addition and subtraction dominos, which allowed more game sessions. In the phases of the conditional relations, some relations was teaching (was presented feedback) and other was tested (wasn't presented feedback).

Tabel 1. Procedure Synthesis

Sequence of Procedure Phases	Pre-Test
	Teaching AB/BA
	Teaching AC/CA
	Test BC/CB
	Probe I
	Teaching CD/DC
	Test AD/DA
	Test BD/DB
	Probe II
	Teaching AC'/C'A
	Test BC'/C'B
	Probe III
	Teaching C'D'/D'C'
	Test AD'/D'A
	Test BD'/D'B
	Post-test
	Follow-up

The usability and engage of the game were assessed through the categorized record of the participant's behavior during the sessions. Does this mean that was created and recorded behavior categories: questions about the game (PJ = perguntas sobre o jogo in portuguese), positive commentaries (CP = comentários), negative commentaries (CN = comentários negativos), request help (SA = solicitar ajuda), unrelated issues commentaries (CA = comentários alheios) and story commentaries (CH = comentários sobre a história). The behavior categories were adapted from Perkoski (2015).

3.2. Results

Before the conditional relations teaching and test during the game, the participant already presented good performance in most addition and subtraction problems. He presents poorly performance (under 60%) only with problem solution of subtraction problems with the unknown in a position. Still, after the sessions with the game, the participant showed performance over 90% in all kind of addition and subtraction presented problems. It was observed maintenance of engagement, especially by the higher frequency of positive commentaries than negative commentaries about the game, as well as the higher frequency of the story commentaries by the participant. It was observed the need of adjusting some game features in order to improve the usability in the game's digital version, since was identified mechanic problems, due to the pieces configuration, which allowed that the game ended by lack of the pairing alternatives. It was concluded that needed making the appropriate adjustments and investigate its effects on solving problems with individuals which present poor performance in that kind of task. Furthermore, the story was considered appropriate, mainly by the good engage of the participant.

4. Digital prototype

The digital prototype was developed after the paper prototype test, and it was formed by one main scenario which presented the maps corresponding to teaching and test phases of conditional relations. Each map presented five islands (Figure 3A). In each island, one domino track with three gaps was presented (Figure 3B). In order to resolve the problem found in the paper prototype, was planned pre-programmed tracks with gaps, so avoid that the players had no pieces options to play. Each island taught or tested one relation pair (e.g. AB/BA), totaling 30 relations (e.g. five islands with three relations AB and three BA each). In this prototype, were not been presented all aesthetics and story elements, like the pirate. Four seven years old children served as participants of digital prototype assessment. Before the study, they presented poor performance in solving problems of addition and subtraction.

Figure 3. Image of the components of the Korsan digital game's prototype.
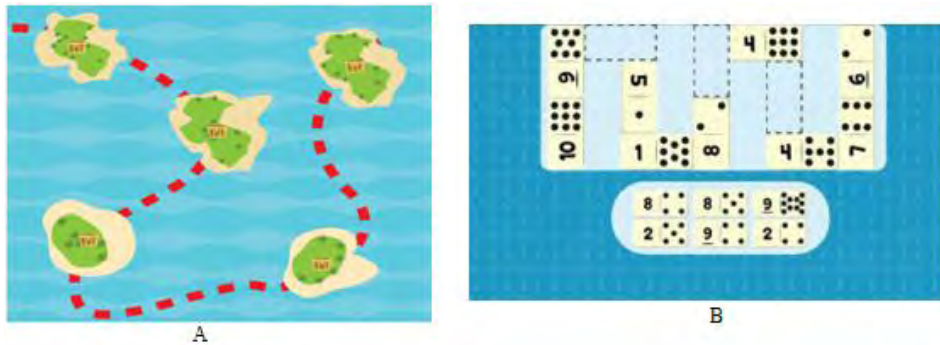
4.1. Assessment procedure

The assessment was similar to the paper prototype's. However, to the digital prototype only the maps related to addition problems were, iniatially developed. The game was initially played with two participants, while the other two remain em baseline until the two early completed two teaching and one test phases.

Tabel 2. Synthesis and schedule of the procedure for each participant.

	Participants			
	P1	P2	P3	P4
Phases	Pre-test	Pre-test	Pre-teste	Pre-teste
	Teaching AB/BA	Teaching AB/BA	Baseline	Baseline
	Teaching AC/CA	Teaching AC/CA	Baseline	Baseline
	Test BC/CB	Test BC/CB	Baseline	Baseline
	Probe I	Probe I	Probe I	Probe I
	Teaching CD/DC	Teaching CD/DC	Teaching AB/BA	Teaching AB/BA
	Test AD/DA	Test AD/DA	Teaching AC/CA	Teaching AC/CA
	Test BD/DB	Test BD/DB	Test BC/CB	Test BC/CB
	Post-test	Post-test	Probe II	Probe II
	-	-	Teaching CD/DC	Teaching CD/DC
	-	-	Test AD/DA	Test AD/DA
	-	-	Test BD/DB	Test BD/DB
	-	-	Post-test	Post-test
	Follow-up	Follow-up	Follow-up	Follow-up

The usability and engagement assessment was similar to paper prototype's assess. However, it was added new categories: commemorate (CM) and demonstrate approval (DA = demonstrar aprovação in portuguese), request to stop the activity (SI = solicitar para interromper a atividade in portuguese) and request to change activity (TA = solicitar para trocar de atividade in portuguese). These changes were made to fit the different technology of the prototype (digital instead of analogic), once that had less interaction with the researcher and more direct interaction with the game.

4.2. Results

To the digital prototype assessment, the participants who were selected presented poor performance (under 60%) on addition and subtraction problems with digits and in balance form. After the begin of the sessions with the game, it was observed better performance in the problem solving of addition in both presentation forms to P1, P2, and P3. For P4, it was observed better performance in the solving problem in balance form in all unknown positions, and with digits with the unknown in a and b positions. All participants showed performances over 80% for all forms of presentations and all unknown positions in the follow-up.

It was observed higher frequency of the categories that indicate good engagement (CM, DA, CP, CH) than categories that indicate problems to engage players (CN, CA, SI, TA). The usability problems seem had decreased with the planning of the tracks with pre-programmed gaps, once the questions about the game (PJ) occurred in lower frequency than in the paper prototype assessment. However, it was observed soma questions, mainly by P1, at the beginning of each phase, which can indicate that the instructions were insufficient. The addition of new instructions can benefit the understanding of the tasks by the players.

5. Conclusions and further studies

This study presented assessments of two prototypes, with the objective of assisting in developing a game that complies with educational, usability and engagement aims, to enhance the probability of developing an effective learning tool. It was preferred direct measures, like observe the players behavior than indirect measures, like ask them if they like the game, for example, once that there may be no correspondence between saying and doing. In further works, we intend to increase the investigation of the direct measures of observation with more participants, in addition to insert more elaborated elements of aesthetic and story. Considering the diversity of repertoires of the children with math tasks, we intend in the next phase of the game developing, design the teaching of pre-math skills, which can be considered pre-requisites and facilitate math learning (Gualberto, Aloi, & Carmo, 2009). It is understood that is fundamental to control a greater number of variables and investigate the reach of educational games in comparison with others teaching procedures, in order to verify its reach. The assessment of prototypes is a way to develop games more trustworthy, once each result of the assessment serves as a feedback to improve features of the game that not function well, and maintain features that do function well. There's no space for statements about the efficiency of educational games without strong data that confirm it.

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THE NEEDS AND INVOLVEMENT OF SIBLINGS OF CHILDREN WITH AUTISM: CONTRIBUTIONS TO SOCIO-EDUCATIONAL INTERVENTION

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Abstract

The diagnosis of Autism Spectrum Disorder (PEA) in a child causes profound changes in the dynamics and functioning of the family system, due to difficulties and increased needs of parents / caregivers and siblings. In this context, the fraternal subsystem plays an important role because it constitutes a source of informal social support par excellence, with strong implications on the well-being and the personal functioning of the child or young person with autism (Felizardo, 2016). Considering the relevance of the support of siblings of children and adolescents with autism, the present descriptive and exploratory study aims to understand their needs and involvement. We defined as objectives: *i)* to know the support network of parents and siblings of children with autism; *ii)* understand the perceptions of parents and siblings of children with autism about the needs and involvement of siblings, in the areas of awareness, feelings, fun, help and advocacy. The sample is of convenience, and 40 participants (30 siblings and 10 parents of children with PEA) were enrolled in the study. The instruments of data collection were a sociodemographic questionnaire, the Portuguese version of the *Siblings Needs and Involvement Profile* (Fish and collaborators, 1995), of Reis, Espe-Sherwindt and Serrano (2010) and a semi-structured interview with parents / caregivers. The results show that there is congruence between parent / caregiver and sibling reports, particularly in the areas of awareness / knowledge about autism, feelings, fun and help. In view of the results, the need to intervene intentionally with the siblings of children / young people with autism is reinforced, developing socio-educational actions that promote their involvement and provide support to their needs.

Keywords: Autism, siblings, needs, involvement, socio-educational intervention.

1. Introduction

The *Diagnostic and Statistical Manual of Mental Disorders*, 5th Edition – DMS5 (APA, 2013) is the framework of *Autism Spectrum Disorders* (ASD) in the context of neurodevelopmental disorders. The ASD involve a range of limitations in various areas of development, intellectual, behavioral and social, requiring specific strategies of action and support by caregivers (parents, siblings and other relatives) and professionals, as well as child / young, promoting their functionality in different social contexts of life. The presence of a child with autism in a family can have a profound effect on their relational system (Felizardo, 2016; Naylor & Prescott, 2004), so the study of the relationships between children with autism and their siblings constitutes a current theme, especially for the developmental implications of children with autism.

The siblings are the daily companions of the games, they are those who support and protect, so, identifying the type of involvement and the needs that they experience are important information, in the context of socio-educational intervention. Regarding the implications for siblings, the literature is unclear. Reis, Espe-Sherwindt and Serrano (2010) report that most siblings experience frustration at the inappropriate behavior of children with autism. Along the same line, Macks and Reeve (2006) emphasize the siblings 'discomfort in the face of parents' less attention and difficulties in understanding the functioning of children with autism.

In this context, it is necessary to outline actions to meet the specific needs of siblings (Fiamenghi & Messa, 2007; Naylor & Prescott, 2004), helping them reduce possible emotional difficulties, improve their expectations and increase their participation in diversified activities (Barak-Levy, Goldstein, & Weinstock, 2010).

2. Purpose of the study

This study is part of a broader research on the effects of social support in families of children with Special Educational Needs. The central objective of the study is to understand the needs of siblings of children with autism. To this end, we defined the following objectives: *i)* to know the social support network of parents and siblings of children with autism; *ii)* understand the perceptions of parents and siblings of children with autism about the needs and involvement of the siblings, in the areas of awareness, feelings, fun, help and advocacy.

3. Methodology

3.1. Research design

The study is descriptive and exploratory in nature and was developed in regular schools and the APPDA institution (*Portuguese Association for Developmental Disorders and Autism*), in central Portugal.

3.2. Participants

The sample is of convenience, and 40 participants (30 siblings and 10 parents of children with PEA), aged between 6 and 21 years, were enrolled in the study.

3.3. Instruments for data collection

The instruments of data collection were: *i)* sociodemographic questionnaire; *ii)* the Portuguese version of the *Siblings Needs and Involvement Profile* – SNIP (Fish et al., 1995), of Reis, Espe-Sherwindt and Serrano (2010); *iii)* the semistructured interview with parents/ caregivers. This was organized around three topics: the support network of parents and siblings, the needs of parents and siblings and the involvement of siblings. Descriptive analyzes were used and in the content analysis of the interviews the emergent categorical analysis was used.

4. Results

In the "awareness" subscale, we find that most siblings report that they are knowledgeable about autism. Most siblings (n = 18, 60%) report that they perceive their sibling, know his difficulties (n = 16, 53.3%), were informed about autism (n = 23, 76.7%) and asks parents about his sibling's problems (n=17, 56.7%).

In the subscale "feelings", most report positive feelings about the sibling (n = 21, 70%). However, in the questions about the embarrassment to the sibling's behavior and the resentment with the special attention of the parents, the results are ambiguous, being that they do not know for certain (n = 10, 33.3%, n = 12, 40%) and assume the embarrassment (n=7, 23.4%).

In the "fun" subscale, we found that most siblings (n = 26, 86.7%) reported that they enjoyed playing with their siblings with autism, introducing them to their colleagues and chooses to spend time with them (n = 18, 60%). However, when asked if they do not care that their sibling is not able to participate in certain games / sports, almost half of the children / young people (n = 14, 46.7%) disagree.

In relation to the "aid" subscale, most children report that they teach new things, serve as a model and help where necessary (n = 26, 86.7%, n = 18, 60%, n = 21, 70%). When asked if they do not take on too much responsibility, almost half of the children are unsure or disagree (respectively, n = 13, 43.3%, n = 10, 33.4%) and most do not consider themselves overly protective of their sibling (n=18, 60%).

In the subscale "advocacy", most refer that responds to other people's questions and painful comments, shares with others these issues and takes pride in the sibling (respectively, n = 21, 70%, n = 30, 100%, n = 18, 60%, n = 25, 83.3%).

Table 1 presents the results of interviews with parents / caregivers, with the emergence of categories: *support network of parents and siblings, needs of parents and siblings and involvement of siblings.*

Table 1. Results of interview: categories, subcategories and example of indicators.

Categories	Subcategories	Example of indicators
1. Parents' Social Support Network	3.1. Formal	"The association (appda) has been very important ... collaborate with parents" (e1); " the school has a support unit; the special education teacher helps me when I have questions " (e5).
	3.2. Informal	" it's more my husband's parents. " (e3); "the grandparents have helped my son's economy and transportation to therapies " (e8); " what works for me is my family, my parents and siblings." (e10).
2. Sibling support network	4.1. Formal	"The association (appda) has actions for siblings, which helps them cope with differences and share experiences" (e3); "has several therapies: speech, music, horses" (e6).
	4.2. Informal	"We try to compensate him with our very moments, in which I am only with him ... we do family activities "(e1); "It has a lot of family support ..."(e10).
3. Parents' needs	5.1. Time management;	"He should have more swimming and hippotherapy, but we do not have time to take him everywhere. (e2).
	5.2. Economic difficulties	"The biggest difficulty at the moment is the financial support" (e8)
	5.3. Technical and pedagogical support	"I needed more support ... sometimes I do not know how to deal with it" (e9).
4. Siblings needs	6.1. Information;	"She still does not realize what autism is" (e10).
	6.2. Support of parents (time, leisure)	"She told me one day that I had no time for her and I liked her brother more than she" (e2).
	6.3. Sharing experiences with other siblings	"It would be beneficial to share experiences with other siblings" (e7).
	6.4. Psychological support (mediation)	"Even if it is not supporting to know how to deal with a different brother, to accept it, to accept that parents give support and different times to each one of them" (e1).
5. Involvement of the siblings	7.1. Awareness	"Here (appda) has already participated in activities with the boys and with other brothers. He realizes some difficulties, but not everything" (e8).
	7.2. Positive feelings	"She is very protective of her brother, she protects him a lot in school. He likes him and he loves her" (e3).
	7.3. Negative feelings	"He feels that he abdicates many things because of his brother" (e2).
	7.4. Leisure	"They play a lot, they play, they dance "... when he is with other children, he no longer plays with his brother" (e4).
	7.5. Support	"He helps him a lot ... he is available to his brother, helps him to do things, teaches him, says: do not do this, do not shout "(e1).
	7.6. Advocacy	"Defend him ... she's very protective." (e4).

5. Discussion

By making the triangulation of the siblings 'perceptions with the parents' perceptions, we verified that there is congruence between the two types of sources, in counterpoint with other studies (Fish & Senner, 2010). Caregiver interviews reveal that formal support from professionals and the association (APPDA) is an important support for parents and especially for siblings, helping them cope with differences and sharing experiences with other siblings. These results are in line with the results in the "awareness" subscale. In this context, we also highlight the role of the informal support network of parents and siblings (Table 1). Regarding needs, caregivers assume that they give more attention and make the child / youth with autism more time available, in keeping with the brothers' perceptions in the subscale "feelings" (resentment and embarrassment). We also point out the positive references to siblings with autism ("She is very protective of her brother, protects him a lot in school. She is very fond of him and he of her, "interview 3) and the role of siblings in playing games and helping the sibling with autism ("He helps him a lot ... he is available to his brother, helps him to do things, teaches him…", interview 1). These results are in line with the results of the "feelings" and "fun" subscales (Table 1).

6. Conclusions

The scientific literature of the area indicates that the existence of a child with autism in the family could boost *stress* levels and difficulties in the family system (Felizardo, 2016; Felizardo, Ribeiro, & Amante, 2016; Felizardo, Silva, & Cardoso, 2015; Naylor & Prescott, 2004). Although positive effects (greater maturity of siblings and increased family cohesion) can be verified, the experience of having a sibling with this problem can be complex and difficult (Reis, Espe-Sherwindt & Serrano, 2010). Thus, the brothers may experience difficulties, due to the alteration of family roles, resentment, responsibility, lack of understanding of the problem, and incomprehension / shame at the sibling's problematic behavior. In this sense, a specific follow-up should be designed for siblings, not only to provide them with information about the problem, but also to guide them, understand them and provide formal and informal social support (Fiamenghi & Messa, 2007). In the present study we verified convergence between the perceptions of the parents / caregivers and the siblings in the area of awareness / knowledge of the problem. These results stem from the parents' concern to provide information to their children about autism, as well as the specific and intentional work that APPDA association professionals have developed with their siblings. Parents recognize that they give more attention, care and time to the child with autism, which seems to be in congruence with indicators of some discomfort reported by siblings (subscale feelings). We highlight the positive references of siblings and parents about children / youth with autism and the sharing of games between siblings. In this case, siblings may constitute an important source of informal social support, with effects on the well-being and personal functioning of the child or young person with autism (Felizardo, 2016). The present study also highlights the intentional intervention by parents and professionals with their siblings in order to improve their knowledge about the autism problem and to support their needs and difficulties, involving them in the process of development of children with autism, as partners of excellence.

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TRUST IN COMPUTER-SUPPORTED CRISIS MANAGEMENT COMMUNICATION: TOWARD A NEW MODEL

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Abstract

This paper presents a new model, Computer-supported Crisis Management Communication (3C) to capture communication during crisis management when communication is mediated by computational tools. Different services (*e.g.*, police, army, hospital, fire service) support crisis management with different responsibilities. Each service has unique concerns regarding the main elements of the situation, the major values, interests and objectives to be fulfilled, and the relevant alternative course of action. While the services have well-defined and distinct responsibilities, teams within and between disciplines must share information and make adjustments to meet changes in a dynamic environment. Despite recent technical advances in the area of systems support for cooperative work during crisis, there is still relatively little understanding of the communication requirements. Moreover, independent of the software, recent analyses show that trust between partners is crucial during crisis management. We draw on models of interpersonal trust, technology acceptance, situation awareness and communication to elaborate a new model integrating all these factors and to provide recommendations for computer-supported communication environments.

Keywords: Crisis management, trust, computer-supported communication.

1. Introduction

Different services (*e.g.*, police, army, hospital, fire service) support crisis management with different responsibilities. Each service has unique concerns regarding the main elements of the situation, the values, interests and objectives to be fulfilled, and the relevant alternative course of action. Participants come from different organizations with different cultures and merge in a dynamic situation full of uncertainties that includes a lack of experience with specific individuals. Communication is an important part of crisis response. Indeed, communication, and information sharing in particular, is an important part of any sociotechnical system, and is threatened by more than the absence of functioning communication equipment (Linot, Dinet, Charoy & Shalin, 2018). Créton-Crazanave (2017) has identified substantial resistance to the use of the existing computational support for crisis communication, Crisorsec (see Figure 1). We argue that an integrated model of communication, in which trust is a central construct, is key to the design of computer-supported communication for sociotechnical systems such as crisis response.

Figure 1. From Créton-Cazanave, 2017.

*"Participants who use Crisorsec begin to question **what information should be in an application and what should pass through other means**. Phone calls to a trusted contact, mail, and secure networks readily available and useful in parallel with Crisorsec, (p.89).*
***"Doubt about the status of information and the proper distribution channel** (is problematic). Many responders raise this difficulty and the way it undermines trust and guides the usage of Crisorsec", (p.89).*
*"In crisis management, it is obvious that **trust in one's interlocutors is fundamental for collaboration and coordination.** In addition, mutual knowledge makes it easier to understand each other and to sort out what should be logged. **Trust is therefore paramount",** (p.90).*
*"Virtually opening the physical center of operations to new organizations – some of whom may not be invested in issues of civil security or public order - induces a particular concern among the key players in crisis management: **should we really share all of the information about a crisis with everyone?",** (p.90).*

2. Theoretical background: a combination of four models

Computational tools to support information distribution promise to compensate for the organizational, spatial and temporal distance between collaborators. But poorly designed mediated communication may fail to accommodate the fundamental properties of effective human coordination: trust, founded on interpersonal experience, a shared representation and the ability to exchange tailored messages based on the assessment of recipient need. Below we examine models related to the crisis communication problem: The Trust model (Mayer, Davis and Schoorman, 1995), the Unified Theory of Adoption and Use Technology (UTAUT) model (Venkatesh et al., 2003), and the Situation Awareness model (Endsley, 1995). Each model captures relevant concepts (*e.g*., interpersonal trust, technology acceptance and situation awareness). Their individual limitations for the design of mediated communication resolve by combining them with a model of communication (Pickering and Garrod, 2004).

2.1. A trust model (Mayer, Davis & Schoorman, 1995)

Trust plays a relevant role in interpersonal relationships (Ferreira, 2014). Seldom do we have just enough information to make a perfect assessment of someone's activities or intentions. Instead, we often have too little information or too much information. This is certainly the case in large agent networks where (partial) ignorance and conflicting opinions are the rule rather than the exception. For Mayer, Davis and Schoorman (1995), three characteristics of the trustee determine the trustors reliance on a trustee: ability, benevolence, integrity. The trustor also has a propensity to trust.

Ability, competencies, and individual factors enable a party to have influence in a particular domain. Benevolence is "*the extent to which a trustee is believed to want to benefit the trustor, aside from an egocentric profit motive*", (Mayer et al. 1995, p. 718). Benevolence suggests that the trustee has some specific attachment to the trustor (e.g., a mentor, affective relationships). Integrity refers to the extent to which the trustee adheres to a set of principles or decisions that the trustor finds acceptable. Propensity to trust is a trait leading to a generalized expectation about the trustworthiness of others independent of prior experience. People with different developmental experiences, personality types, and cultural backgrounds vary in their propensity to trust (e.g., Hofstede,1980). Propensity to trust interferes with the intention to trust and is especially prevalent in ambiguous situations (Gill, Boies, Finnegan & McNally, 2005).

The perception of risk and willingness to take on risk also contribute to a person's trust assessment. Though certainly relevant to the problem of information exchange, this model lacks a place for tools to assist in the communication of information. The model also lacks a role for context and goals and the interaction between two agents, a trustor and a trustee, is implicit.

2.2. UTAUT model (Venkatesh *et al*., 2003)

The utility of technology and ease of use affect an individual's technology acceptance (Davis *et al*., 1989; Davis, 1989). The widely recognized Unified Theory of Acceptance and Use of Technology (UTAUT) describes and explains user intentions to use an information system and subsequent behavior. UTAUT is derived from eight previous models of technology acceptance (Venkatesh *et al.,* 2003): Theory of reasoned action (TRA, Fishbein et al., 1975), the Technology Acceptance Model (TAM, Davis, 1989) and extended TAM (Venkatesh and Davis, 2000), the Motivational Model (MM, Davis, *et al.,* 1992), the Theory of Planned Behavior (TPB, Ajzen, 1991), the model combining TAM and the TPB (C-TAM-TPB, Taylor and Todd, 1995a, 1995b), the Model of PC Utilization (MPCU, Thompson *et al.,* 1991), Innovation Diffusion Theory (IDT, Rogers, 1995) and Social Cognitive Theory (SCT, Bandura, 1986). UTAUT combined four main determinants of usage and intention (performance expectancy, effort expectancy, social factors, and facilitating conditions) and proposed four moderators (i.e., gender, age, experience, and voluntariness). Using data from four organizations with three points of measurement, Venkatesh *et al*. (2003) found that the eight models explained between 17 and 53% of the variance in users' intention to use Information Systems (IS)/ Information Technology (IT). However, UTAUT outperformed all the eight models using the same data, explained about 70% of variance in behavioral intention (Venkatesh *et al*., 2003) and 50% in technology use. UTAUT has been used extensively in explaining the adoption of technologies by individuals. However, UTAUT lacks a role for trust, or concern for communication and the exchange of information between partners. There is no external world context, no distinction between data and information and no communication partner.

2.3. Situation Awareness model (Endsley, 1995)

Awareness of the situation is defined as "the perception of the elements in an environment defined in time and space, the understanding of their meaning and the projection of their evolution in the near future". Endsley identifies three purportedly sequential levels: (i) the perception of the elements of the environment: the states, attributes, and statuses of the task environment; (ii) interpretation and understanding of the elements present in the situation that integrates perceived information and combines it with knowledge to construct a functional representation of the situation according to the objectives pursued. Both expertise founded on experience and the nature of the information can affect interpretation. (iii) projection of the states of these elements in the future, constituting prediction. The Endsley model specifies what it means to understand a situation. However, the model does not specify *shared* situation awareness, or even recognize multiple participants in a work effort. Hence there is no process for detecting or remediating discrepancies between participants and no role for communication.

2.4. Communication model (Pickering & Garrod, 2004)

The Pickering and Garrod model for language (2004), emphasizes the presence of multiple communicating agents. Pickering and Garrod's model suggests a fixed, overlapping procession through stages of production and comprehension to achieve a shared understanding between conversational participants. This model explicitly includes two conversational partners. Discrepancies in immediate experience motivate the use of language to achieve some goal, for example to articulate need not readily apparent to a partner. However, their model lacks reference to a physical environment, task/context specific communication goals, a role for trust or mediating communication tools.

3. A new integrated model (Computer-supported, Communication for Crisis Management)

Each of these models captures dimensions relevant to computationally mediated communication during crisis management. While as noted above, the individual models are limited, they are complementary. Our new integrated model (see Figure 2) has three main components: a physical world, actors, and the information they produce and share. This model acknowledges the key role that individuals play in the interpretation of world conditions, not for passing along data, but rather for communicating information, framed by knowledge, task context and familiarity with the knowledge and task context of the recipient. A person, an observer with her characteristics, schemas and work processes, looks at the data from the world and changes this data into information. The goal of communication is to create aligned representations of the world between different collaborators.

We indicate the influences of the source models on the integrated model with color coding in Figure 1. Consistent with Endsley, there is a physical world (what she calls elements in an environment) providing data that require interpretation using knowledge and expertise. The components of interpersonal trust in the new model (integrity, benevolence, ability and propensity of trust of the trustor) come from Mayer et al. (1995). Trust plays a crucial role in at least three locations in this model: (i) trust in data from the world, (ii) trust between two collaborators and (iii) trust in the mediated information exchange that we typically call communication. Note that trust influences an observer's interpretation *of* data particularly when the data result from man-made artifacts. Physical sensors can be wrong, not only due to design limitations, but also because context influences their interpretation.

Pickering and Garrod (as adapted by Hampton & Shalin, in preparation) contribute the idea of situation alignment between two collaborators who are communicating. When communicating, the trustor crafts an appropriate message with the trustee in mind, trusting him to interpret the message properly. Similarly, the trustee trusts the trustor to provide accurate information according to standard principles of message design (for example Grice, 1967). Finally, the UTAUT model specifies the main factors influencing behavioral intention and use behavior: performance and effort expectancy, social factors, facilitating conditions.

Integrating these models provides much of the missing functionality of the respective models. Integrating the models also highlights additional factors that extend the source models. These include characteristics of the data, the situation and the presence of a work schedule and work processes.

Figure 2. Our 3C Model (3C: Computer-supported, Communication for Crisis Management).
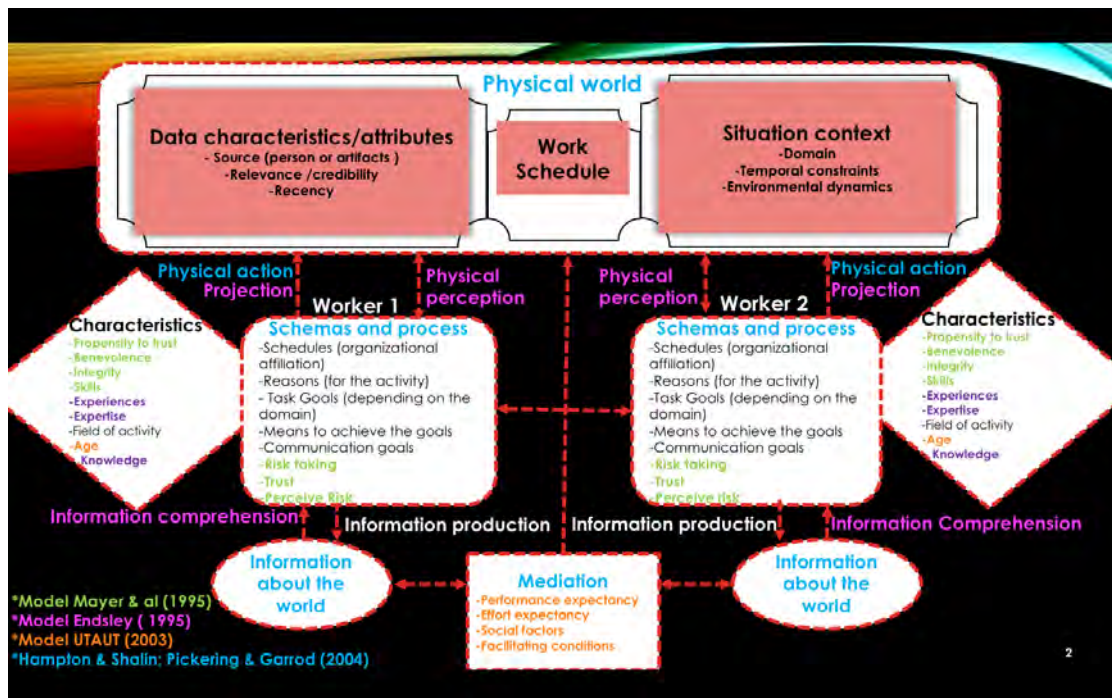
4. Discussion

Our long-term goal is to design computational tools for communication in the domain of crisis management. We have identified the need for a model that unifies trust with communication using computational media. The proposed integrated model clarifies the source of resistance to existing tools that Créton-Cazanave (2017) has noted.

When computational tools mediate the exchange of information they risk breaking the adaptive link between the source of information and the recipient. Sources can no longer shape their message in breadth and detail for the precise needs of the recipient. Instead, generic "information" is anonymously deposited by a trustee for anonymous retrieval by a trustor. Trust in the source is never established, follow-up queries may not be possible and the trustee is at a loss for providing more effective information. According to our model the absence of trust between participants is not bad. Being suspicious of information is an important safeguard in complex sociotechnical systems (Linot, Dinet, Charoy & Shalin, 2018), but some mechanism for follow-up is required. Note that attaching names to information sources is not the solution. The personnel in large socio-technical systems are too numerous, too transient and too ad hoc to presume that names provide effective retrieval cues. For this reason, our team is working on trust metrics that track the sufficiency of interaction between personnel over time without relying on names. Because all information has a temporal attribute, it must be included in any information exchange. For instance, information stored in a computer (*e.g*., a flood level) must be maintained for persisting relevance or deletion. Temporal relevance is implicit in telephone exchange, because the exchange occurs while the data are still relevant. These and other system requirements emerge from a model driven design of Computer-supported Crisis Management Communication.

While our model is intended to support the design of computational tools, it also guides our ongoing empirical work. Several constructs are poorly understood, particularly the interaction between trust and risk. In addition, organizational trust requires empirical research to understand the both its effect as a mediator on organizational processes and dynamics within an organization, and, as is so important in crisis management, between organizations. We anticipate changes to our model as the empirical work proceeds.

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REEDUCATION OF DOMESTIC VIOLENCE PERPETRATORS AS A NECESSARY MEASURE TO REDUCE VIOLENCE AGAINST WOMEN

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Abstract

The domestic violence against women is a human rights violation. The protection of women is actually considered in a large compilation of laws around the world, especially in those that are a result of international human rights conventions, aiming to preserve integrity of women, their mental health, their full development and their lives – as it happened, for example, in the Convention of Belém do Pará, in Brazil, in 1994. However, the importance of the procedures that aim the reeducation of victims and perpetrators as a public policy are still invisible in Brazil, what fully contributes to the failure of reducing domestic violence against Brazilian women. Nearly five thousand women die in Brazil every year due to gender violence. In order to understand the domestic and familiar violence against women it is necessary to observe that this type of crime occurs in a very specific context of an intimate relationship between the victim and the aggressor, so it demands the comprehension that it is a must to focus on reeducation programs for victims and perpetrators in order to help them perceive the various culturally naturalized behaviors that can trigger violence against women. Not being actually aware of what is an abusive relationship is the basis of women's submission to their aggressors and it is also the basis of the perpetrators feelings that women are objects that belong to them. In this regard, this paper investigates the impacts of public policies measures that focus on reeducation of aggressors as a preventive instrument of recidivism in cases of domestic and familiar violence. For this purpose, bibliographic and documentary researches, analyzing especially the Brazilian legislation about the women rights of not being abused – the Maria da Penha's Law, n. 11.340/2006 – were used as methodological procedures. This paper also presents the results of programs that work with aggressors in Latin America. This study´s main´s conclusion is that the condition of being a gender aggressor isn't usually a psypathological condition, but the result of culturally assimilated concepts of what is to be a man and what is to be a woman, enabling men to believe they can own and control the women who they relate to and that women must submit to all of their desires, what clearly points out the relevance to invest in reeducation programs aimed mainly domestic violence perpetrators in order to reduce domestic violence against women in Brazil .

Keywords: Domestic and familiar violence, women´s rights, aggressors, reeducation, gender.

1. Introduction

The protection of women victim of domestic and family violence is a challenge that the governors must confront in the present, because this kind of violence has turned into a public policy problem. All around the world, independently of race, social class or educational background or the country they come from, women are still beaten and violated, even when their countries have a specific legislation to protect them.

2% of the Global Gross Domestic Product – GDR per year is spent with the results of domestic and family violence against women (ONU women, 2016). The effects of this type of violence are pandemic, hurting the health of this population in a massive proportion.

However, there are international conventions to prevent the violence against Brazilian women, for example the Belém do Pará Convention of 1994, as well as a national law, as the Law number 11.340/2006 in Brazil, although it is clear that the results concerning the control of domestic violence against women in Brazil are still unsatisfactory. The Brazilian law to prevent and punish violence against women in domestic and familiar environments is over 10 years of age, but even women that access the institutions of the justice system to their protections are still dying.

The numbers are scary: in every 2 minutes 5 women are spanked in Brazil (Fundação Perseu Abramo/SESC, 2010), although we have the third best protective law against gender domestic violence in the world (Compromisso e Atitude, 2018). This demonstrates that violence against women have specificities that cannot be ignored if there actually is the intention of reducing the mentioned violence rates.

Therefore, what is needed to be highlighted is that domestic violence is very different from social violence, once it does not happen between two strangers, but between two whole families, with severe consequences mainly to the victims. What motivates the violence against women is the social and cultural constructions about gender. All of social members are submitted to concepts that indicate what men and women must be or act. By men behaviors of impulsiveness and aggression are introjected and form women society historically expects behaviors of sweetness and passivity. This social construction is based in dynamic patterns, called patriarchy that presents a rigid hierarchy between both genders social roles. Men therefore believe they own the control of the sexuality and body of women, because they are superior. (Saffioti, 2003)

Due to the pandemic status of violence against women it is necessary to actually face and prevent these individually introjected concepts and behaviors, by both, men and women. The object of this research is exactly the study of programs that reeducate the aggressors of domestic and familiar violence against women in Latin America to observe if they can really help stop this type of violence, reducing recidivism.

For this purpose, bibliographic and documentary researches, analyzing specially the Brazilian legislation about the women right of not being abused – the Maria da Penha's Law, n. 11.340/2006 – were used as methodological procedures.

2. Impacts of Reeducation Programs of Aggressors

The analysis of the results of the study *Sexual Violence and Mental Health: analysis of programs for the care of male perpetrators of sexual violence* (Tonely, 2007) observed that the re-education programs of aggressors are mostly developed by non-governmental organizations, representing the absence of public policies for one of the subjects involved in the existence of the kind of violence here considered, the perpetrator.

All of the legislation analyzed in Brazil, Uruguay, Chile and Bolivia focus only on the immediate nature of the protection of women in situations of domestic violence, ignoring that it is hard for both, victims and aggressors, to fully understand and therefore stop the cycle of violence they are attached to. It was perceived that the state actions based only on the application of these legal texts is preponderantly directed towards emergency situations, without considering the complexity of the aggressor-assaulted relationship and also without considering the medium and long-term impacts on the health and on the quality of life of the women who are domestic violated. Punishments that don´t take into account the permanence of the potentiality of future aggressions against other women by a man whose conception of ownership and dominion over female corporality was not resignificated don´t actually help to stop domestic violence against women.

We observed the predominance of measures to remove the aggressor from home, the prohibition of contact with the victim and to carry guns, as well prison sentences, what demonstrates the permanence of a merely punitive reasoning that isn't showing the results expected to stop this type of violence. Only Chile expressly foresees in their legislation the possibility of re-educating the aggressor in this initial moment of care in actions that aim the immediate interruption of the domestic violence cycle.

3. Conclusion

The paradigm of punitive legislations considering violence against women is preponderant in Latin America, where it is observed that the rates of femicide are still rapidly increasing. Therefore, violence against women represent a pandemic problem that needs deeper academic comprehension from

the governments. The old exclusively punitive rationality towards the aggressor have not been successful to reduce feminicides in Latin American countries.

Public policies in cases of gender violence are concentrated in the female's figure, disconsidering that the aggressor needs to change his own concepts about sexuality and behaviors towards women. The mentioned behaviors are culturally and socially introjected in both, men and women, considering gender roles.

The concept of patriarchy and it´s comprehensions is the central figure in the acts of the aggressors when they think they have the permission to attack women, especially in domestic and familiar environments, as if they actually owned them. Until the reeducation programs aren't perceived as the principal public policy to help stop domestic violence against women, the recidivism will not be impacted, because putting men in jail does not mean that they will effectively re-assimilate the patriarchal concepts that justify, in their minds, their behavior.

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THE APPLICATION OF RESTORATIVE JUSTICE CONCEPTS IN CASES OF DOMESTIC VIOLENCE AGAINST WOMEN

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Abstract

Restorative justice serves the purpose of regarding the various relations affected between the different actors in a criminal context, identifying their needs and seeking ways to repair their possible still remaining relationships in any possible way. Domestic violence has the peculiarity of involving complex affective and emotional bounds between the victims and the aggressors and therefore it is clearly underserved when managed by merely punitive bias of justice. Considering this context, the present study aims to stablish possible links between the paradigm of restorative justice and its application in cases of domestic violence against women. Through bibliographic and documentary research techniques, it was stablished that restorative justice concepts can be used with success in order to serve the purpose of empowering the victim as well as it can help the offender reflect upon his concepts of masculinity and the traits of abusive gender relationships victimizing women. Therefore, restorative justice approach might highlight positive results that can enable victims and offenders to develop some amount of awareness and transformation considering the emotional bounds they share, as well as considering that these fronts of actions are essential to discontinue and or to prevent the cycle of domestic violence. The increasing and gradual institutionalization of restorative justice in the world and in Brazil was equally observed, evidencing the legal possibility of its application in cases of domestic violence in the country. In the other hand, the limitations and possibilities of applying restorative justice in this type of violence were evidenced, opposing the favorable arguments and the relevant criticisms towards the usage of restorative justice concepts in cases of domestic violence against women. This paper also highlights some Brazilian initiatives already executed in this considered field of study. The results reveal the need of further discussions, exchange of experiences and new researches, in order to stablish a minimum consensus on the subject, taking into account the complexity and specificities of domestic violence against women, focusing on the urgent need to find better ways to actually prevent and combat domestic violence against women.

Keywords: Restorative justice, domestic violence, victim, aggressor.

1. Introduction

Restorative justice represents a paradigm shift that stands in contrast to retributive justice. In sum, the main objective of the latter is to award a penalty to the defendant by simply subsuming the act committed to a formal criminal type, which should, in theory, be based on the interest of society in an abstract and subjective way, represented by the punitive monopoly of the State. Restorative justice, in turn, seeks to recognize all the damage that crime has generated and to minimize its psychological effects, which are usually the most painful ones, requiring an appropriation of the conflict by actors who have been effectively affected in some way by the infraction committed. Thus, in the concrete case, the victim, the aggressor, their family members, including their children, and the community itself, as well as

their actual needs, are identified in order to reach the real dimension of the violence perpetrated, considering preventing future episodes.

At the same time, domestic violence, as recognized by the Maria da Penha Law, has its potential for damage and management complexity increased in relation to crimes of social violence. The reason is that the agent consists in someone who has had or continues to have affective relevance for the victim, generating specific needs regarding the reach of the woman's care in an integral manner. In this sense, the study aims to stablish approaches between restorative justice and its possibilities of application in cases of domestic violence.

2. Objectives

The objectives of this study are to investigate the most important normative milestones on restorative justice in the world and in the Brazilian scope. Furthermore, it seeks to understand the limits and possibilities of applying restorative justice in cases of domestic violence and, finally, to present some Brazilian initiatives that approach the two themes under study.

3. Methods

The present study is a descriptive-exploratory research, conducted by bibliographical and documentary research as the methodological technique used to reach the proposed objectives.

4. Discussion

The objectives of restorative justice are in accordance with the integral care of the gender victim of domestic violence, since they do not fail do consider the complexity and affective relations between victims, perpetrators and both of their families. On the one hand, restorative justice techniques can be used to empower the victim, who has effectively suffered a clear imbalance of power that undermines their autonomy, and must have their security, self-respect, dignity and sense of control restored.

According to Schneider (2010), women want to be heard; they need to have the confirmation that what happened was wrong, unjust and undeserved. They usually seek to receive an apology, so they can move on with their lives. Zehr (2008, p. 27) even notes that "professionals working with women victims of domestic violence synthesize their needs using terms such as 'tell the truth', 'break the silence', 'make public' and 'stop minimizing' [...] ". The aim is to strengthen the victim in order to heal the painful psychological wounds due to domestic violence. Therefore, the victim can guide her life fully, deal with her aggressor and defend her interests in the best way possible (Bastiani; Pellenz, 2015).

On the other hand, restorative justice could favor a greater awareness and accountability perception of the aggressor towards the crimes perpetrated, contemplating what seems to be the main desire of women victims of domestic violence: that the cycle of violence is actually interrupted. In this way, restorative justice imposes a reflexive and transforming responsibility towards the aggressor, facilitating the deconstruction and the resignification of sexist concepts culturally internalized, sometimes even imposing difficulty to men to express their inner feelings and emotions, except anger, hurting them psychologically as well. Moreover, the offender can actually perceive the crime committed as a real damage, recognizing its multiple facets and power of negative consequences to the victim, to himself and to their other family members. For example, in Brazil, even though it is rare, it is possible to refer aggressors to re-education groups when protective measures are deferred before criminal proceedings are actually instituted, in order to prevent the aggravation of the cycle of violence and even in order to prevent feminicides.

Nonetheless, the application of restorative justice does not constitute a consolidated and uncritical ground. First, restorative justice is criticized for reprivatizing the conflict (Fabeni, Marques, 2016), since despite being criminalized and previously judged via Special Criminal Courts in Brazil, the perpetrators of such crimes used to receive alternative sentences, such as the payment of fine or basic food baskets for donation, considered by victims and by feminist movements as a way to institutionalize impunity. Restorative justice, however, does not consist in favoring impunity. Instead, aggressors must accept responsibility for what they have done, which is not always the case when they only plead guilty. It is also argued that the practices of retributive justice and restorative justice may complement each other mainly considering gender domestic violence.

The second important criticism towards the use of restorative justice in domestic violence cases refers to the imbalance of power between victim and aggressor in the scope of possible needed negotiations, allowing the offender to use this mechanism to refuse assuming responsibility for repairing the damage caused (Fabeni, Marques, 2016), and allowing other symbolic violence to occur during his

contact with the victim, as the reproduction of the discourse that she is responsible to keep the family together, which would strengthen the guilt within the victim. In contrast, it should be noted that the revictimization of women already occurs in the context of domestic violence cases. The components of sexist perceptions introjected into lawyers, advocates, prosecutors and judges, regardless of their gender, are often materialized in the documents signed and written by them during the trials, including the sentences stablished. In addition, the revictimizations are evidenced during the hearings; in the low rate of convictions; and in the high index of prescriptions of the actions of domestic violence processed in the specialized Brazilian courts (Barbosa, Silva, 2017). Therefore, revictimization of domestic violence victims is not a problem that specifically concerns restorative justice, but it is perceived in all institutional segments designated for the protection of women. In fact, only the formal qualification in gender and domestic violence of those at the head of the processes affected by this type of violence can effectively prevent the revictimization of women, regardless of the model of justice (restorative and / or retributive) that one wishes to follow.

Additionally, as for the vulnerability of the victim, this model of justice applied to cases of domestic violence does not aim the reconciliation of the couple. Actually, family relationships extrapolate the relationship between victim and aggressor and require sometimes the concern to stablish an open and civilized possibility of communication between both (and not the couple's reconciliation) to enable them to take future decisions concerning their children, for example. Moreover, criticisms regarding the use of restorative justice in cases of domestic violence lead the listener to conclude that the only applicable techniques in restorative justice is to promote conflict mediations between victims and aggressors. In fact, restorative justice does not have an exhaustive role of procedures. They are not limited to a particular program but restorative justice is considered an open field for the emergence of innovative techniques that can more effectively meet the needs of victims of domestic violence, truly considering its complexity and peculiarities (Gomes; Santos, 2017).

As Brazilian initiatives, the "Circulando Relacionamentos" project (Ponta Grossa, Paraná) stands out as a program in which victims and aggressors have the opportunity to listen and to speak to one another, so that everyone can analyze the conflict over multiple perspectives in order to have their needs exposed and recognized. And there are also the so-called "strengthening hearings" (held in 14th Criminal Court of the Comarca of Belo Horizonte / MG), in which the aggressor under urgent protective measure and the victim participate in an audience where the woman is invited to speak her heart and mind out freely, while the aggressor should only listen ("She speaks, he listens, only") (CNJ, 2017). The initiative stems from the magistrate's perception that one of the great bases of the relationship that results in an act of violence is submission, in addition to the aggressor's awareness of the victim's fear of him. As in restorative circles, when the victim can speak what she really feels like, the woman reverses the roles with her aggressor, leaving the position of victim and assuming a role of protagonist in front of the conflict that she has undergone.

5. Conclusions

It is observed that restorative justice consists of an alternative that converges its objectives towards the integral care of women victims of domestic violence, with a primary focus on the empowerment of the victim and also on the reeducation and transformation of the aggressor, also favoring their other family members. Thus, regarding the criticisms raised considering the usage of restorative justice procedures in domestic violence, their use should be analyzed academically and should not, at the outset, constitute an obstacle to the application of restorative justice in cases of violence against women. On the contrary, their usage should contribute to the improvement of their practices, taking into account their limits and possibilities. In this sense, it is important to encourage exchanges of experience, empirical research and debates on the subject, so that, if possible, minimum consensus can be reached on its best application in the specific case of domestic violence against women.

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REVENGE PORN AS A RISK FACTOR TO THE PSYCHOLOGICAL HEALTH OF THE VICTIMS

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Abstract

The revenge porn is the illegal, unauthorized and deliberate exposure of female sexuality in presential or virtual spaces, which happens mainly as a form of revenge in the end of emotional relationships. This crime is a form of gender violence because it is based on the cultural differentiation between masculine and feminine social functions, naturalized in the behaviors of aggressors, victims and the society in general, including the professionals who work in the legal systems. In this context, the social judgment of victims end up encouraging the violence perpetrated by the criminal behavior here described, resulting in cyberbullying, job loss, address changes, suicidal thoughts, suicidal attempts and actual suicides. Suffering with the collapse of their personal and professional life, the victims of revenge porn undergo intense suffering and have their psychological health affected. This condition of physical and mental compromise caused by psychological violence is studied in the medical field as a cause of various symptoms and diseases such as depression, headaches, stomach pains, anxiety, sleep disorders, lack of appetite, for example. In cases of revenge porn, these psychosomatic symptoms and the emergence of various other physical symptoms aggravate suicidal thoughts reported by the totality of the victims of these crimes. Suffering with irreversible injuries caused by psychological and moral violence before and after the so called intimate exposure, victims of revenge porn often progress towards suicidal attempts because of the increasing effects of cyberbullying and because of the moral judgment they have to face even in the justice system, what can be characterized by the practice of institutional violence. In this context, the present study explored the links between revenge porn and psychological violence, explaining how the victims of this crime suffer from the loss of their psychological health and with the emergence of physiological and emotional illnesses that can actually lead them to suicide. In this discussion, the study here presented also points out how the perpetrators play an important role in motivating the victims to commit suicide. In order to achieve these objectives, the following research proceedings were adopted: field research, documentary research, bibliographic research, normative research and content analysis of the documentary and the normative research carried out in order to process the results obtained.

Keywords: Revenge porn, gender violence, suicide, psychological violence.

1. Introduction

The illegal exposure of intimacy and of female sexuality as an act of revenge, in the context of relationships is perceived as a crime called revenge porn. It is a recurrent criminal practice in modern life, characterized by the prolongation of intimate exposure in time and space, accompanied by gender discourses that naturalize the behavior of the aggressor and condemn the attitude of the victims. This sexual exposure causes negative repercussions on the current and future relationships of the victims and in their work, arousing feelings of regret, grief and guilt, accompanied by the pre-disposition to suicide and to other psychological and physical symptoms in a generalized perspective.

Therefore, the crime of revenge porn is a risk to the physical and emotional health of its victims, considering irreversible psychological injuries that can result in intense suffering caused by the violence practiced. Considering the gender perspective in which this crime is practiced, the legal norms should

highlight that the kind of violence here considered as well as its consequences are directly related to the different gender functions cultured attributed to both: male and female genders. In Brazil, for example, the Maria da Penha Law is the most adequate law to face the crime in scope, considering a gender approach and the criminalization of the various types of aggression practiced in this context. In this context, the present study intends to present the revenge porn as a crime that actually harms the physical and emotional health of victims.

2. Methods

Bibliographical and documentary research were chosen as methodological procedures to carry the present research, focusing on documentary content analysis to the explore the data found. In the bibliographic research, national and international scientific books and articles written in English, Portuguese and Spanish were studied, especially the articles published in scientific magazines of Qualis stratification A1, A2 and B1 for Law articles.

All publications of the National Council of Research and Post-Graduation in Law (CONPEDI) published between 2012 and 2017 were studied in the areas of fundamental rights, criminology, gender and bioethics. The choice of these publications is justified by the current relevance of their approaches and impact in the legal science in Brazil. For the selection of the materials analyzed, the following words and expressions were adopted: revenge porn, exposition of sexuality and psychological violence.

3. Discussion

The exposure of female sexuality as a revenge attitude in the end of relationships is a frequent crime in various regions of the world, perpetuating a historical discrimination by the use of technological devices that facilitate the circulation, intensification, reproduction and the perpetuation of the violence committed.

The exposure of female sexuality often causes a negative repercussion in the lives of the victims in virtual and physical spaces, considering the social discourses that naturalize the behavior of the aggressor and reprove the conduct of women, who become exposed to severe moral judgments.

In this perspective, concepts traditionally exploited by gender theories, such as patriarchy, machism and sexism, are very important for understanding the crime of revenge porn. Suffering with social judgment of reprobation of their behavior, the victims of revenge porn assume responsibility for the aggression practiced, reinforcing the symbolic domination exercised by the aggressor, which is still invisible to health and legal institutions (1).

Considering the complexity of revenge porn, essentially a kind of intrafamily gender violence, it´s consequences compromise significantly the health and the physical integrity of the victims. In this perspective, the application of Brazilian Law 11.340/06, the Maria da Penha Law, to these crimes is the most appropriate legal solution to face revenge porn in Brazil. The perfect adequacy of this norm to crime here considered is justified by the centrality of the concept of gender in the understanding of all forms of violence against women. Described in the seventh article of normative document mentioned, the psychological and moral violence constitute the appropriate legal categories for understanding the crime in discussion.

In this context, professionals and scientist affirm the negative consequences of the crime for the emotional and physical integrity of its victims, whereas the torture experienced threats their mental health, including episodes of depression, sadness, regret, stress, headaches, stomach problems and sleep problems, for example (2). This psychological instability experienced by the victims of revenge porn causes a significant impact on the physical integrity of women, reasoning affirmed by the medical literature and gradually observed in the Brazilian legal culture. Scientist as Aníbal Bruno (3), for example, explain that psychological diseases can cause body injuries, episodes of depression and confusional states of mind.

Reinforcing this perception about the risk of psychological violence to the health of victims in the context of revenge porn, Sauaia and Alves (4) describe this type of violence as a bodily injury, considering the significant degradation of the victim's health in a generalized perspective.

4. Conclusions

Revenge porn is a recurrent crime in modern society and it consisted in the deliberate exposure of female sexuality in the context of affective and sexual relations. In this context, gender discrimination

is often observed, considering the persistence of stereotypes and cultural binarisms that separate social functions between men and women.

The feelings of regret, disgrace and humiliation experienced by victims and result of the practice of moral, sexual and psychology violence, compromise their health, considering the psychological diseases that weaken their physical and emotional health.

The perfect correspondence of the Maria da Penha law and the crime studied is justified by an effective transdisciplinary approach of gender and identification of the various forms of violence perpetrated in the context of this crime. Considering the present perspective, revenge porn is a modality of the psychological and moral violence, that affect the health of victims in a generalized perspective.

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RISK-TAKING BY CHILD PEDESTRIAN: IMPACT OF GENDER STEREOTYPE CONFORMITY ON INJURY-RISK BEHAVIORS

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Abstract

Child pedestrian injuries – resulting from collisions between child-pedestrians and motor-vehicles – are a leading cause of injury related deaths for children aged 10 years and under. With an experiment conducted with a large sample of children (N=197) and based on the "GO/NO GO" task, we investigate the impact of three individual factors (age, biological gender, gender role behavior) on decision-making for young children aged from 3 to 10 years in tasks related to pedestrian activity. Results show that the gender role behavior (Masculine *vs*. Feminine) has a significant impact on response time to make decision, while the biological gender (boy *vs*. girl) has no impact. In other words, boys' and girls' injury-risk behaviors are mainly predicted by masculine stereotype conformity and girls' masculine behaviors decline with increasing age. Moreover, results show that the younger the child is, the more risky s/he is. In other words, results underline the impact of gender-roles - and of the differential socialization associated with those roles - on sex differences in young pedestrian's risky behaviors as early as the preschool period.

Keywords: Risk making, gender, accident, pedestrian.

1. Introduction

Child pedestrian injuries – resulting from collisions between child-pedestrians and motor-vehicles – are a leading cause of injury related deaths for French children aged 10 years and under (Struik, Alexander, Cave, Fleming, Lyttle & Stone, 1988; Thomson, 2007). For instance, in France the last year, 15 children from 1-year-old to 9-years-old have been killed, and 443 children have been seriously injured (ONISR, 2016). Even if every year many pedestrians are injured or killed in traffic accidents in rural parts of the country (*e.g*., Ivan, Garder & Zajac, 2001), pedestrian safety is being considered as a serious traffic safety problem in urban and suburban settings (Prato, Gitelman & Bekhor, 2012) specially for children (Meyer, Sagberg & Torquato, 2014). It is the reason why prevention of child pedestrian injuries in urban areas is always challenging, but both educating children on road safety and modifications to the urban environment seem to reduce risk of injury and mortality.

2. Risk taking behaviors by young pedestrians

Many studies concluded that men/boys are more likely to take risks than women/girls. Some specific studies conducted with children pedestrians of varying ages have demonstrated also that there is greater risk taking behavior among boys than girls. Results obtained with empirical or experimental studies have shown that boys engage in more risky behavior than girls during both naturalistic observations and experimental studies (Underwood, Dillon, Farnsworth & Twiner, 2007).

One of the main reasons is that boys tend to identify situations as being less risky when compared with girls. For instance, Morrongiello and Rennie (1998) interviewed children, ages 6, 8, and 10 years after a presentation of stimuli depicting children in various degrees of risk and participants were asked to first sort the pictures according to level of risk, with varying levels of facial expressions, ranging from confident to wary. They then reported how much they engaged in each activity and answered questions regarding the attributions of injuries during such activities. Results showed that children's self-reported risk taking behaviors were related to beliefs that injuries are attributed to bad luck, that they were less likely than peers to incur injury, and that they more often minimized their own level of risk of injury. Additionally, boys, as compared with girls, were found to be more frequent risk takers, more often

identified injuries as due to bad luck, rated lower levels of vulnerability to injury, and rated themselves less likely than their peers to be injured. Similar results were also reported in many other empirical or experimental studies (*e.g*., Barton & Swebel, 2007a, 2007b) and confirm that the biological gender (boy versus girl) has a significant impact of risk taking.

But other studies did not find a significant impact of biological gender on risk taking behavior for children. For instance, in the study conducted by Boles, Roberts, Brown and Mayes (2005) with 46 children aged from 4 to 7 years investigating the relationship between perceptions of vulnerability, temperament, and children's risk taking behavior in a simulated home environment, no impact of biological gender have been found. Moreover, some other authors assumed that the gender role behavior is more important than the biological gender for explaining the differences in risk taking. Gender roles can be defined as expectations about behavior that are generated by the social group and depend upon the gender group to which the individual belongs. With a series of study conducted with young children, Granié (Granié, 2007, 2009, 2010) show that boys' and girls' injury-risk behaviors are mainly predicted by masculine stereotype conformity and that girls' masculine behaviors decline with increasing age. So these results underline the impact of gender-roles - and of the differential socialization associated with those roles - on sex differences in children's risky behaviors as early as the preschool period.

In other words, if a majority of authors (except for Boles, Roberts, Brown and Mayes, 2005) is agree that there exists gender differences in propensity to take risks, they are not agree about the nature of these gender differences: for some researchers, this is the biological gender (boy *vs*. girl) while this is gender role (masculine *vs*. feminine) for other authors. So, the question addressed in this paper is the following: is the gender role (masculine versus feminine) more important than the biological gender to explain the risk taking by young pedestrians?

3. Method

In an experiment based on a "GO/NO GO" task, we analyzed the impact of gender role behavior and biological gender on a behavioral indicator (*i.e*., response time) for very young pedestrians (from 3 to 10.6 years) in tasks directly involved in the navigation in urban environment (crossing a street).

3.1. Participants

A sample of 197 children (102 girls and 95 boys) participated in the experiment. Participants are issued from four different age groups: Seventy pupils are from Kindgarden (boys, 54.2%; mean age = 3.86 years; *SD* = 0.37 years), ninety pupils are recruited from Grade 1 (boys, 62.2%; mean age = 6.89 years; *SD* = 0.31 years), and thirty-seven pupils are recruited from Grade 3 (boys, 51.4%; mean age = 9.87 years; *SD* = 0.51 years). All children are issued from the same elementary school located in a mid-town of a French city located in the East of the country. All participants are French native speakers and the majority (93.4%) lives in urban area. All parents were agree to their children participate. No participant has severe visual impairment and no cognitive impairment. There is no difference between groups according to the visual memory and attention capacities.

3.2. Independent variables and material

Three independent and individual factors are manipulated:
— Age, with three modalities: Kindgarden, Grade 1, and Grade 3;
— Biological gender, with two modalities: boy *vs*. girl;
— Gender Role Behavior, with two modalities: Feminine *vs*. Masculine. The Pre-School Activities Inventory (PSAI) was used to assess the "Gender role behavior". The PSAI is a psychometric scale elaborated by Golombok and her colleagues (Golombok & Rust, 1993; Golombok, Rut, Zervoulis, Croudace, Golding & Hines, 2008; Golombok, Rust, Zervoulis, Golding & Hines, 2012). It is used primarily by research psychologists and has been normed on a large and representative sample of children between the ages of two-and-a-half years and five years of age. It contains 24 items and is completed by the child's parent or caretaker. Items concern the child's characteristics and toy and activity preferences. PSAI is a questionnaire with 24 questions about the everyday activities of young children. The questions are divided into three sections: toy preferences (e.g., "guns of used objects as guns", "Dolls, doll's clothes or doll's carriage", "Tea set") activities (e.g., "Pretending to be a female character such as a princess", "Playing house such as cleaning, cooking", "Playing at taking care of babies", "Dressing up in girlish clothes"), and characteristics ("Likes pretty things", "Shows interest in snakes, spiders or insects", "Avoids getting dirty"). For each question, there are five possible answers: never, hardly ever, sometimes, often or very often. For each question, parents answer by clicking the

response that best describes her child. The average score for boys is 60 and the average score for girls is 40. Whatever the respondent (boy or girl), a higher PSAI score reflects behavior that is more typical of boys (*i.e.*, "masculine") while a lower score indicates behavior that girls tend to engage in (*i.e.*, "feminine").

Moreover, information processing speed was also tested to control its possible effects on performance. For the assessment of information processing speed, the Processing Speed Index (PSI) issued from the Wechsler Preschool and Primary Scale of Intelligence-Fourth Edition (WPPSI-IV) designed for children aged 2:6–7:7 was used.

3.3. Procedure and dependent variables

Two digital environment/tasks are specifically created (Figure 1):

In the first one, called "NO GO" task, each child was asked to press the "space" key to stop the movies that s/he watches on a computer screen. For each movie, each child is informed that s/he will see a group of children who want to cross the street (*i.e.*, to go from the down to the top of the screen). But there are several motor-vehicles going from the left to the right, and going from the right to the left. So, each child is invited to press the "space" key to tell "NO GO" to the children, *i.e.*, when "s/he thinks that the situation is too dangerous for the group of children". Four different movies were used in this "NO GO" scenario during the experimental session, and two were used during a training session;

In the second one, called "GO" task, each child was asked to press the "space" key to tell "GO" (*i.e.*, "Let's go") to a child who wants to cross the street. In each movie, each child is informed that s/he will see an urban scene where different young pedestrians want to cross the street. But, like in the "STOP" condition, there are several motor-vehicles going from the left to the right and/or from the top to the down. So, each participant is invited to press the "space" key to tell "Let's go" to the children, i.e., when "s/he thinks that the situation is not dangerous for the child" during the experimental session. Four different movies were used in this "GO" scenario, and two were used during a training session.

Whatever the digital environment/task ("NO GO" or "GO"), the response time (in milliseconds) is computed. In the "NO GO" movie/game, a higher response time reflects hazardous behavior. In the "GO" movie/game, a higher response time reflects safety behavior.

Figure 1. Examples of a "GO" task (on the left) and a "NO GO" task (on the right).
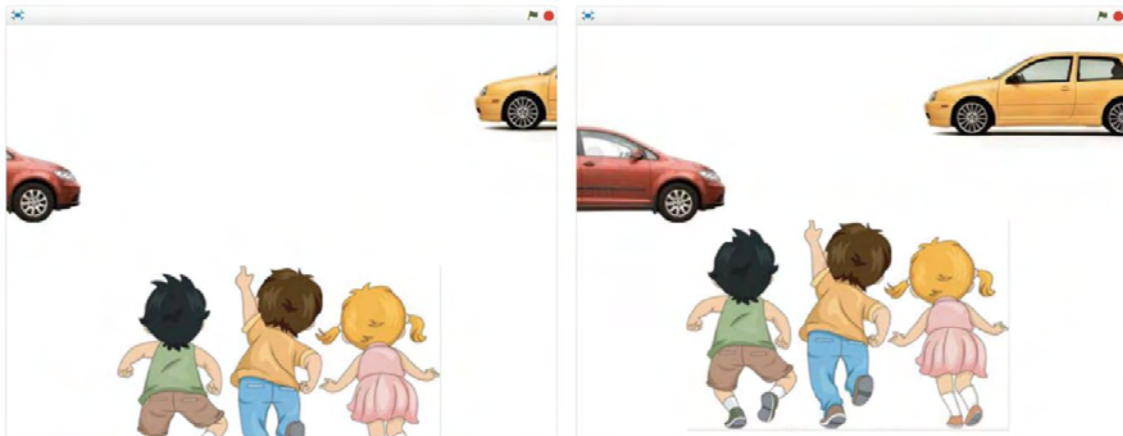
4. Main results

All statistical analyses were performed by means of the free statistical software R (R Core Team, 2016). We can note that analyses revealed no difference between the three age groups for the information processing speed ($F_{(2-195)} = 5.31$, $p<$.ns). For the "NO GO" digital environment/task, analyses have shown that the impact of Gender Role Behavior on response time is significant ($F_{(2-195)} = 199.6$, $p<$.0001; Feminine = 2847.6 *vs*. Masculine = 4910.7). Because in the "NO" digital environment/task, a higher response time reflects hazardous behavior, children with a masculine profile take more risk than children with a feminine profile. Always for the "NO GO" digital environment/task, there is no impact of Biological Gender ($F_{(2-195)} = 0.343$, $p=$.559; Girl = 3894 *vs*. Boy = 3772.3) and there is no significant impact of Age on response time ($F_{(2-195)} = 1.965$, $p=$.143) (Kindgarden = 4075.4 *vs*. Grade 1 = 3598.4 *vs*. Grade 3 = 3761.9). No significant interaction has been found.

For the "GO" digital environment/task (Figure 1, left side), analyses revealed two significant impacts: on the one hand, a significant impact of Gender Role Behavior on response time has been found $(F(2-195) = 32.16$, $p<.0001$; Feminine = 5382.4 vs. Masculine = 4974.2); on the other hand, a significant impact of Age has been also found $(F(2-195) = 32.52$, $p<.0001$; Kindgarden = 3737.4 vs. Grade 1 = 5612.8 vs. Grade 3 = 6714.3). No significant interaction has been found. Because in the "GO" environment/task, a higher response time reflects safety behavior, once again, children with a masculine profile take more risk than children with a feminine profile. Moreover, the younger the child is, the more risky s/he is. Always for the "GO" environment/task, there is no impact of Biological Genre $(F(2-195) = 1.287$, $p=.258$) (Girl = 5382.4 vs. Boys = 4974.283).

Moreover, there is a positive and significant correlation between the response time in the two digital environments/tasks (Response Time "NO GO" and RT "GO"): the faster the child is in one task, the faster s/he is in the other task. Moreover, there is a positive and significant correlation between the Gender Role Behavior's score (RGB) and the response time in the "NO GO" task (.557, $p<.001$) and a negative and significant correlation between the RGB's score and the response time in the "GO" task (-.309, $p<.01$). Because a higher response time reflects hazardous behavior for the "NO GO" task while it reflects a safety behavior for the "GO" task, and because a higher score in RGB is associated to a masculine profile, these correlations tend to indicate a significant link between the Gender Role Behavior and the risk taking for young children who have a masculine profile. Linear regression analyses revealed a significant multiple R-squared for the "GO" task (0.74, $p=.00012$) and for the "NO GO" task (0.56, $p=.00047$). In other words, Gender Role Behavior is the best predictor of the response time taken to make a decision in our two tasks related to urban navigation.

5. Discussion

Results obtained show that the Gender Role Behavior (Masculine vs. Feminine) has a significant impact on response time to make decision, while the biological gender (boy vs. girl) has no impact. In other words, our results confirm results obtained by Granié (Granié, 2007, 2009, 2010) who showed that boys' and girls' injury-risk behaviors are mainly predicted by masculine stereotype conformity and that girls' masculine behaviors decline with increasing age. So these results underline the impact of gender-roles - and of the differential socialization associated with those roles - on sex differences in children's risky behaviors as early as the preschool period.

Moreover, results obtained show that the younger the child is, the more risky s/he is, but only for one the two experimental tasks (i.e., in the "GO" task). Even if this impact of age concerns only one experimental task, this result attests that the youngest children adopt more risky behaviors. This result is contrary to results obtained hypothesis defended by other authors. For instance, for Morrongiello and her colleagues (Morrongiello & Dawber, 1999, 2004), the more experience a child has with an activity, the greater tolerance for risk taking the child shows for that activity and the more risky is the behavior. According to these authors, the basis for this increased risk taking could be a personal belief that they could successfully manage the increased risk. But results obtained in our study moderate this assumption by showing that the less experience a child has with an activity (i.e., to cross a street), the more risky behavior is. To explain our results, we hypothesize that the user experience as pedestrian is not sufficient for the youngest children (< 5 years) to be able to evaluate the risk associated to the situation with efficiency.

If our results confirm that the Gender Role Behavior is more important than the biological gender to explain risk taking behavior for children, the origins of this gender role behavior is always questioned. Traditionally, they are two types of origin theory: one of these implicates evolved psychological dispositions, and the other implicates social structure (for a synthesis, Eagly & Wood, 1999). According to the origin theory proposed by evolutionary psychologists, the sex differences came from evolutionary adaptations because females and males faced different pressures in primeval environments and the sexes' differing reproductive status was the key feature of ancestral life that framed sex-typed adaptive problems. In contrast, in the social structural structure theory, men and women tend to occupy different social roles, they become different in ways that adjust them to these roles. If evolutionary approach is really interesting to explain the gender differences in domains such as the domestic/social roles, the distribution in professional activities and mate selection/preference, the social cultural structure approach is more relevant to explain the difference between "Masculine" and "Feminine" profile in risk taking behavior for children (e.g., Dinet, 2015). So we need future investigations to determine the origins of this gender role behavior.

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ATTENTIONAL VARIABLES AND BCI PERFORMANCE: COMPARING TWO STRATEGIES

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Abstract

In order to study which attentional variables could be useful to identify fast- and slow-learners of the Brain-Computer Interface (BCI) tasks, 91 students (75 female and 16 male; Age: 19.46 ± 4.94) completed a standard attentional test (CPT-II) as well as a Virtual-reality Test (Nesplora) and took part in two sessions of a motor-imagery task (cursor-task) by means of Enobio 8 and BCI 2000. In the first one they were instructed to thinking about relaxing their arms when they wanted the cursor to go down and about straining the arms when they wanted to direct the cursor upwards (Action/Relaxation Instruction: ARI). In the second session, the instructions were to think about raising their arms to bring the cursor upwards and pressing-down with their feet (as if pressing a car's brake pedal) if they wanted to bring it downwards (Action/Action Instruction: AAI). In both sessions, any actual movement or muscular tension was precluded and only the second strategy was effective (p=.00) to increase BCI-related performance.

Our results with the Nesplora test show positive correlations between the variable Learning and (a) Reaction-Time in Mistakes (r= .654; p=.019); (b) average Reaction-Time to the hyper-stimulation task (r=.705; p= 0.014), and (c) Average Reaction-Time in Mistakes when no distractors were present (r=.692; p=0.051). For the CPT-II test Learning positive correlations were found with HRTISIC (Hit Reaction Time ISI Change) (r= .450; p=.046) and Detectability (r=.948; p= 0.008).

We conclude that (1) The AAI strategy is more useful than the ARI to learn the cursor-task through BCI; (2) The attentional variables that may affect the process of learning BCI tasks are processing speed, cognitive flexibility and the ability to control impulsivity.

Keywords: Brain computer interface, learning, instructions, attention, BCI 2000.

1. Introduction

To study the Brain-Computer-Interfaces (BCI) requires deep knowledge of brain as well as processors' functioning. BCIs are biofeedback systems which transform EEG-waves into actions that can be performed by a machine. It is a relatively new discovery (the term was coined by Jacques Vidal in 1973 (Vidal,1973) that may have interesting and possibly successful applications to therapeutical fields. It will be possible, for instance, developing exoskeletons that will allow those who have lost the ability to move their limbs just by using brain activity, as well as performing all sorts of domestic activities, or will facilitate the communication to those with severe speech disorders, among other possible utilities. Promising as it may look like, there are, however, a number of unknown aspects for which no solid explanations has been provided by now. A part of the future success of BCI-based therapeutical approaches relays on our ability to identify which variables affect the ability to interact with a machine by means of the mental activities that we can produce and control in highly variable conditions, as well as which are the conditions in which this ability can be most effectively acquired by learning (Vaadia & Birbaumer ,2009).

To go along those lines, we aim to study the strategies used by individuals having shown a high success at BCI tasks, since we have learned from previous studies that there are huge inter-individual differences in the ability to manipulate BCI devices (Jeunet, N'Kaoua, Subramanian, Hachet & Lotte, 2015). Some subjects display good performances, even after just a few trials, while others are almost unable to learn how to do it, a phenomenon that has been named 'BCI-illiteracy' and may affect an estimated 15 to 30% of the population (Vidaurre & Blankertz,2010) aptly manage a BCI (Brendan, &Neuper, 2010) (Climent, Banterla, & Iriarte, 2011), correctly identifying these skills could be a useful tool to predict 'BCI-literacy'. Additionally, we aim to ascertaining which kind of instruction may be more useful in order to facilitate learning to use a BCI-device.

2. Methods

2.1. Participants

A total of 91 second-year Psychology students (16 men and 75 women; age=19.46 ± 4.94). At the Universitat de València have participated in this study.

All of them provided a written informed consent and took part in the first phase of the study, while 53 of them also participated in the second.

2.2. Instruments

The following instruments and materials were used:

Initial Questionnaire. Designed by ourselves to explore daily activities usually performed by the participants (physical exercise, video games, music training...) that had been hypothetically related to the ability to manage a BCI-device

Virtual-Reality Test 'Aula Nesplora': Intended to evaluate sustained and selective attention to visual as well as auditive stimuli (Diaz-Orueta, Garcia-Lopez, Crespo-Eguilaz, Sanchez-Carpintero, Climent & Narbona, 2014). The participants are subjected to a variety of external distractors of both sensorial modalities, which allows an evaluation of their ability to inhibit the effect of distractions. The instruments also evaluate the ability to inhibit internal distractors, which has been considered as particularly relevant for our purposes (Diaz-Orueta et al, 2014)

CPT II Test: Provides an assessment of the general attentional capacities as well as concentration and alertness (Diaz-Orueta,2014); (Schalk, 2009). It offers, as well, a score of the participants' ability to inhibit a response.

- **Enobio (8-channels).** It is a BCI-device based on the recording of EEG-waves which are processed by means of BCI2000. It uses wireless technology. The dry electrodes make it easier and more comfortable for the participants and have shown similar levels of recording efficacy than the humid ones (Thorsten, Moritz, Klas, Sabine, Joao, Christian, Bernd &Femke,2011) The signal was acquired through channels F3, F4, C3, Cz, C4, T7, T8 and Pz, according to the international system10/20, placed on sensory-motor areas in order to apply the BCI paradigm of motor imagery. To implement the system, BCI 2000 (Schalk, McFarland, Hinterberger, Birbaumer, & Wolpaw 2004) was employed because of its contrasted results (Zulueta, Iriarte, Díaz-Orueta& Climent, 2013). A Cursor-Task was selected. It is based on the modulation of Mu and Beta rythms to control the position of a cursor on the computer's screen. The participants intentions should affect the cursor's position.

- **Cursor Task:** Computer application that provides feedback to the user. It is controlled by means of imagining actions. In our study, these actions have to follow the instructions received and are aimed to direct the cursor towards a bar that may appear in different parts of the screen. Being able to direct the cursor and to reach the bar is considered a succesful attempt. The cursor moves by itself and the participant just has to control the direction in which it is moving, in order to reach the bar.

2.3. Procedure

The study was performed in two phases.

First Phase:

a)   Participants completed the initial questionnaire.

b)   The Enobio 8-helmet was properly placed on their heads, by using the distance between Inion and Nasion as the reference, with the *Pz* point placed on the central point (Wilson, Schalk, Walton, & Williams, 2009). They listened at the instructions while the habituation period was going on. Every subject performed the instruction Action/Relaxation Instruction (ARI). While looking at the screen, they were asked to imagine their arms rising or feeling relaxed, in order to move the cursor upwards or downwards. They performed a total of three trials consisting of 15 attempts per trial.

c)   They performed the Aula Nesplora-Test and, after a five minutes-break, the CPT II.

Second Phase:

Two weeks later and following the same order that in the first phase, the participants came back to the laboratory to perform the BCI task. This time they were instructed to apply the Action/Action Instruction (AAI) consisting in imagining that they were raising their arms or pressing down with their feet, to direct the cursor upwards or downwards. They performed a total of five trials consisting of 15 attempts per trial.

2.4. Statistical tests

T-tests for related samples as well as for paired samples, and univariate variance analyses have been performed.

3. Results and discussion

For the ARI, no learning was observed among the participants, operationalized as an increase in the percentage of successful attempts between the first and the last trial: The difference between both attempts was not significant. For the AAI, though, an improvement was observed between the first and the third trial (t=-2.425; p= .010), as well as between the first and the fifth one (t=-4.135; p=.000).

A significant correlation *(r= .654; p=.019)* was found between AAI-based *Learning* and the variable *Response-Time in Mistakes* at the Nesplora-Test, meaning that those who are quicker at emitting a mistaken response (impulsive style) are the worst BCI-learners.

Similar results are found for the HRTISI variable (Hit Reaction Time ISI Change) from the CPT II-test *(r=.450; p=.046).* Which means that those subjects who respond faster and correctly to target stimuli also learn faster to do the Cursor Task.

There is a significant correlation between learning and average Response-Time to the hyperestimulation task of the Nesplora-Test *(r=.705;p=.014).* For this task, the participant has to respond every time a stimulus is shown on the slate or a name is said out loud, except when it is the target-stimulus. This result means that subjects who are quicker at answering during high-concentration tasks and are better at performing inhibition, are the ones who display a faster learning curve.

A significant correlation between *Detectability* (a CPT II score) and *Learning* of the Cursor Task *(r=.948; p=.008)* was found. *Detectability* assesses the participant's ability to quickly switch the attentional focus. This result can be interpreted in the sense that individuals with a high cognitive flexibility will be more likely to swiftly learn the task.

Last, there is a significant correlation *(r=.692; p=.051)* between the average Response-Time (Nesplora) when no distractors are present and *Learning:* individuals displaying a higher processing speed impulsive style and make mistakes because of that will be slower at learning the Cursor Task.

4. Conclusions

Instructions based on the Action/Relaxation constitute a worse strategy than Action/Action instructions in order to learn a BCI-task.

As it could be expected, increasing the number of training sessions produces better results.

Impulsivity is inversely related to the ability to master the Cursor Task.

Processing speed and cognitive flexibility can predict a faster learning of BCI-based tasks.

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SPEECH DISORDERS IN ALZHEIMER'S DISEASE: PRECLINICAL MARKERS OF DEMENTIA?

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Abstract

As has been shown in research, speech and language impairments are one of the key clinical manifestations of early-stage Alzheimer's Disease (AD). Currently, speech and language disorders are considered as important as other cognitive disruptions (memory loss, executive disfunction, learning problems or vision impairments) for early detection of AD and its discrimination from other age-related pathologies, like amnesic Mild Cognitive Impairment, depressive and mood disorders. Traditionally, AD language symptoms have been linked to difficulties in accessing lexicon and semantic networks. More recent studies, however, have emphasized that speech level impairs formerly in AD and therefore may have greater value in early diagnosis of this neurodegeneration. The aim of this work is to offer an overview of speech variables, which undergo significant changes under neurodegenerative processes of AD, and to attest how their assessment may allow detecting AD onset at preclinical stages of dementia. To that end, we draw upon the results from our speech analysis experiments with healthy elderly, persons with aMCI and AD sufferers, and discuss the potential predictivity of different temporal, acoustic and prosodic variables of vocal emission.

Keywords: Alzheimer's disease, speech, voice impairments, early diagnosis, automatic speech analysis.

1. Introduction

Alzheimer's disease (AD) is one of the most devastating neurodegenerative diseases, which currently affects more than 46 million people worldwide (Prince, Wirno, Guerchet, Ali, Wu & Prina, 2015). AD is an incurable disorder (Bookheimer & Burggren, 2009) that leads to important impairments of memory, vision, executive function and language (Ahmed, Haigh, Jager & Garrard, 2013; Fernández, Laubrock, Mandolesi, Colombo & Agamennoni, 2014). Although progressive impairment of anterograde episodic memory was traditionally seen as the key symptom of histopathological processes underlying AD (Corsi, 2004; Murdoch, 2010; Storey, Kinsella & Slavin, 2001), recent experimental studies have shown that language and speech disorders precede memory disorders in time (Schröder, Wendelstein & Felder, 2010). Language and speech-related changes in Alzheimer's patients appear as disrupted verbal fluency (Szatloczki, Hoffmann, Vincze, Kálmán & Pakaski, 2015), impairments in segmental and suprasegmental phonetics (Mesulman, Rogalski, Wieneke, Hurley, Geula, Bigio, Thompson & Weintraub, 2014), semantic paraphasias (Lima Silagi, Ferreira Bertolucci & Zazo Ortiz, 2015), grammar and lexical simplifaction (Ahmed, de Jager, Haigh & Garrard, 2012) and disorders in discourse expression (Pistono, Jucla, Barbeau, Saint-Aubet, Lemesle, Calvet, Köpke, Puel & Pariente, 2016). The abovementioned processes, which are possibly connected to lexical-semantic impairment, subsequently give rise to anomic aphasia (Garrard, Maloney, Hodges & Patterson, 2005), one of the most salient symptoms of moderate and severe AD consisting in multivariate impairment of semantic content and access (Reilly, Peelle, Antonucci & Grossman, 2011).

Language and speech impairments in AD are now considered by scientists for two major values. In the first place, disturbances in language and speech appear at early stages of dementia, which makes them a potential variable for bringing the moment of detection back to the preclinical phases of AD. This is of critical importance, since early diagnosis of AD is throughout considered to be the most efficient way to confront dementia-associated decay (Guerrero, Martínez-Tomás, Rincón & Peraita, 2016; Sharma & Lipincott, 2017) and to successfully slow down the processes of cognitive and functional deterioration (Rachel, Grela, Zyss, Zieba & Piekoszewski, 2014). As there is no known cure for AD, only an efficient

early diagnosis would allow to apply necessary neuropsychological and pharmacological therapies for delaying cognitive, executive and functional decays (Rachel, Grela, Zyss, Zieba & Piekoszewski, 2014) derived from neurodegeneration. At the same time, early diagnosis would permit to avoid the interference of disease impact in the quality of life (QoL) of both patients and their caregivers, for whom QoL optimization is the most attainable outcome given the absence cure (Zucchella, Bartolo, Bernini, Picascia & Sinforiani, 2015).

On the other hand, language and speech markers of AD provide a promising solution to the well-known problem of differentiating persons with early AD from people with other clinical pictures, like non-pathological senescence with cognitive decline due to aging (NPS) (Harris, Davies, Luciano et al., 2014); minor neurocognitive disorders (MND), like amnesic mild cognitive impairment (aMCI), with no evolution into AD (López, Turrero, Cuesta et al., 2016; Ruy, Lee, Kim & Lee, 2016); major depressive disorders (MDD) (Geerlings, den Heijer, Koudstaal, Hofman & Breteler, 2008; Vilalta-Franch, López-Pousa, Llinàs-Reglà, Calvo-Perxas, Merino-Aguado & Garre-Olmo, 2013); or mood disorders (Babulal, Ghoshal, Head et al., 2016). These cohorts frequently show non-discriminating results on different cognitive batteries, what hinders the necessary differentiation between people who will not suffer from pathological ageing and those who will develop AD.

It now seems undeniable that early discriminant prediction of AD is of great importance, in which language and speech alterations could play an essential role. Notably, speech changes affecting verbal emissions and voice – apparently normal – are different in MCI and early AD (Belleville, Gauthier, Lepage, Kergoat & Gilbert, 2014) and other age-related pathologies. In AD, speech impairments are suggested to stem from orofacial apraxia, which entails alterations in face, lips, tongue and pharynx movements, and from changes in the ability to control facial muscles (Luchesi Cera, Zazo Ortiz, Ferreira-Bertolucci & Cianciarullo Minett, 2013). As a result, opposite to other aged persons with similar symptomatic pictures, AD suffers show discriminant phonological errors, sequential lengthening, discourse ability loss and, finally, the global impairment of informational content in communication (Singh, Bucks & Cuerden, 2001).

2. Objectives

Perceptively, it is quite easy to tell out the voice of a person with ongoing AD in full swing from the voices of healthy elderly and even persons with aMCI. However, it is a real challenge to make such differentiation for people at initial stages of dementia since speech and voice impairments are imperceptible to the human ear. With this in mind, we decided to find out what the speech and voice features defining preclinical AD are, and how they may be used for early discrimination and diagnosis of dementia. The main objective of our research was formulated as follows: to detect segmental and suprasegmental variables, which get impaired over the course of neurodegeneration, and to determine their predictive value in early detection of Alzheimer's disease.

3. Methods

To achieve the stated objectives, we recurred to speech analysis: a tool, which automatically associates specific speech variables of any person to statistical calculations from average speech characteristics (Waserbla & Eilam, 2014). As a method, speech analysis was already successfully used in clinical studies on depression, psychotic impairments, bipolar disorders, ADHD or Parkinson's disease. In AD, speech analysis is currently being used by several research groups (Hoffmann, Nemeth, Dye, Pákáski, Irinyi & Kálmán, 2010; López-de-Ipiña, Alonso, Travieso et al., 2013; König, Satt, Sorin et al., 2015; Khodabakhsh & Demiroglu, 2015), including ours (Martínez-Sánchez, Meilán, García-Sevilla, Carro & Arana, 2013; Meilán, Martínez-Sánchez, Carro, López, Millian-Morell & Arana, 2014; Martínez-Sánchez, Meilán, Vera-Ferrandiz, Carro, Pujante-Valverde, Ivanova & Carcavilla, 2017), for testing the reliability of different speech variables in diagnosing AD and its discriminating from non-pathological aging and aMCI.

The key speech variables measured through speech analysis in AD are sound amplitude, glottal rhythm, syllabic rhythm, articulatory rhythm, voice breaks and pauses, spectral frequencies and vocal noise. These variables were considered because of their direct implication in other language processes, which are impaired in AD, such as phonetic pace, semantic access and processing, syntactic planification and conceptualization. Altogether, these variables were grouped under the name *VAD-AD: Voice Analysis Diagnosis of Alzheimer's Disease* and explored in the following way. A voice recording system, which quality characteristics allowed to process single-frequency files of human voice, was embedded into an Ipad with a built-in microphone Apogee MIC Digital (96Khz/24bits). A total sample of 182 older people (102 healty subjects; 38 persons with aMCI; 42 persons with AD) participated in recording an induced

task, consisting in reading the first paragraph of the novel Th*e Ingenious Nobleman Sir Quixote of La Mancha*, by Miguel de Cervantes. All sound files were processed in Praat, an open source software for speech analysis, and further assessed for their relation to the neurocognitive marks of AD.

4. Results and discussion

As a result of our study, we obtained a set of speech and voice variables, which are characteristic of preclinical AD. The associated markers of language impairment in early AD are: increased percentage of deaf segments, increased proportion and number of pauses, increased number of voice breaks, reduced pitch, reduced syllabic structure, reduced elocution pace, and reduced phonation time. Additionally, opposite to control groups, AD sufferers show major variability in F1 and a larger decibels spectrum in F3; major rhythmic variability and minor noise variability. These prosodic and acoustic parameters proved to be able to jointly predict AD at 92,4% (Meilán, Martínez-Sánchez, Carro, Carcavilla & Ivanova, 2018) and underpinned the creation of the prototype VAD-AD. Figure 1 shows differences in speech production in a healthy 84-year-old male (A) and 80-year-old male with AD for the first sentence of the reading task (*In a village of La Mancha…*). The upper panel shows the waveform; the lower panel shows the broadband spectogram with pitch track overlaid for the sentence *In a village of La Mancha*, with spectral energy of the sound over time. Below, the speaker's pitch contour is superimposed. A person with AD, as showed on Part B, presents flat, low-intensity, monotonous speech without inflection. The spectral fine structure of the speech signal is highly degraded (presence of noise between harmonics, substitution of harmonics by noise, and reduced series of harmonics) and results in the loss of speech clarity.

Figure 1.
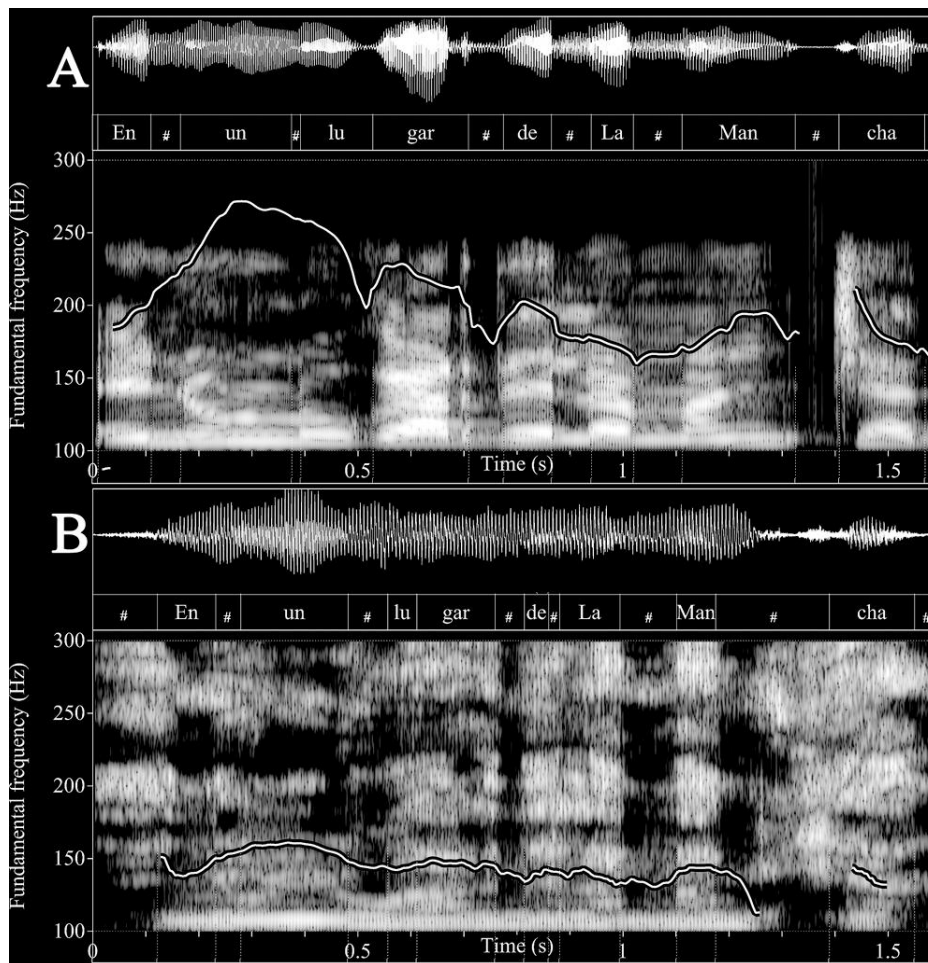
VAD-AD is a portable device, which accomplishes automated mathematical analysis of prosodic and acoustic characteristics of vocal sequences provided by oral uninterrupted verbal emission. This device contains a microphone, which allows to record any voice under controlled conditions; and a

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specifically-designed processor, which processes audio files based on statistical algorythm, and which delivers the percentage of probability of being developing AD in view of voice-associated features. In this respect, VAD-AD meets an important scientific and social need: to bring the moment of detection of AD back to the early preclinical stages of dementia when no other discriminant symptoms are yet clear.

Despite this practical value of VAD-AD, the results of our research give rise to several considerations in both the area of AD studies and the area of voice studies. Regarding AD, the strong relationship between underlying neurodegenerative processes and speech alterations highlights the need to reconsider both the clinical picture and the diagnostic methods currently applied elsewhere to this disease. Language and speech impairments must be definitely considered as unquestionable preclinical symptoms of all stages of dementia, which is not yet the case. Therefore, it seems important to include speech assessment in evaluation protocols used by neuropsychologists and other professionals who work with elderly.

Furthermore, the results of VAD-AD force us to think about the importance of voice analysis in scientific fields outside different areas of linguistics. Voice and speech are universal human properties, which have a very strong relationship with motor and cognitive functions. Their impairments may reflect different alterations in the human brain and mind, and studies like ours are a good proof of it.

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STUDY OF MENTAL DISORDERS, NEUROPSYCHOLOGICAL AND COGNITIVE AMONG A SAMPLE OF PROFESSIONAL DRIVERS IN MOROCCO

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Abstract

Road accidents are a major public health problem in Morocco. These accidents have a very heavy cost, both human in terms of the number of deaths caused, and social as to the degradation of the mental health of drivers. This work moving towards highlighting the depressive and mental disorders profiles of drivers, with their different characteristics, and searching for associated factors, especially the risk of road accidents. The study is a descriptive transversal type, carried out with 60 non-professional drivers and 60 drivers of small taxis in Kenitra, Morocco. The study conducted using a questionnaire and the test Mini International Neuropsychiatric Interview (MINI). The results indicate that drivers work 8 to 12 hours per day and 65% of them take a break after 5 to 6 hours of work. In addition, 16.67% of drivers have a severe depressive profile compared to 6.67% of non-professional drivers. Likewise, clinical analyzes have shown mnemonic and perceptual changes and attention disorders in professional drivers. A strong correlation ($p < 0.001$) is found between this depressive profile and the rate of road accidents (approximately 33% of PD have a single accident versus 18% of NPD respectively). These results highlight the importance of emergency response for professional drivers to reduce or eliminate accidents and promote mental health at work.

Keywords: Accident, public health, depressive profile, professional drivers, Morocco.

1. Introduction

The World Health Organization (WHO) has defined health as "a state of complete physical, mental and social well-being" (OMS, 1946), and not just an absence of sickness or infirmity. In the context of professional driving, taxi drivers face several risks that are sometimes harmful to their health, Mainly Road Accidents (MRA), which present a major public health problem in the world and in Morocco. These accidents have a very heavy cost, both human in terms of the number of deaths caused, economic in terms of material damage, and social in terms of the deterioration of the mental health of drivers. They result in approximately 1.25 million deaths per year, the majority (90%) of which occur in low- and middle-income countries (OMS, 2015). This can be explained by the intense global development of transport (Philip & Mange, 2004). Mental health is an essential component of people's overall health, well-being and personal development. In this regard, the evaluation of cognitive and psychological components in professional drivers, including depressive disorders, not yet developed in Morocco. Thus, these disorders have important consequences on the quality of life and well-being. In addition, taxi drivers spend most of their time on the roads. They represent an indispensable part of the public transport system (Dalziel & Soames, 1997). They qualify as a special group of PD, with cognitive components more developed than in NPD (Dalziel & Soames, 1997) and with specific behavioral characteristics (Rosenbloom & Shahar, 2007). In addition, they have "personalities who prefer to drive in excessive speeds and carelessly change lanes" (Burns & Wilde, 1995). Moreover, taxi driving is a profession with a high level of stress and is among the most dangerous jobs because of the many risks involved (Machin & De Souza, 2004). In fact, taxi drivers are exposed to difficult working conditions such as lack of health coverage, lack of organization of work schedules, low salary, absence of social security, etc. which generate several disorders whether mental or psychological. Thus, most drivers must bring a daily gate to the owner of the taxi at the expense of hours of work / rest. Thus, the issuance of taxi approvals does not comply with well-defined criteria in the legislation by assessing social needs. The aim of this study is therefore to highlight the depressive profiles of drivers, with their different characteristics and to look for associated factors, in particular the risk of road accidents.

2. Methodology

2.1. Participants

This study is a cross-sectional study, which took place in June 2017, looked at 120 male drivers: a group of drivers of small taxis "professional drivers (PD) and other drivers of non-professional drivers (NPD)", the same recruitment methods used to recruit these participants. The same recruitment methods used to recruit these participants. Taxi drivers are between 29 and 57 years old (M = 41.87, SD = 6.27), and have been working as taxi drivers for at least 8 years. In addition, more than half (57%) of these drivers traveled at least 15,000 kilometers per year. In fact, half of the PD have a short education (Collegial / Secondary), 30% have a bachelor's degree and 20% have completed their higher education. However, non-professional drivers are aged 27 to 54 (M = 41.83, SD = 5.03) with a driving experience greater than 7 years. In addition, 62.4% of NPD have a short education (Primary, College / Secondary), 26% have a Bachelor's degree and 11.6% have completed their higher education (Table 1). The rate of participation in this study estimated at 8% of the total population of drivers of small taxis in the city of Kenitra.

2.2. Measuring instruments

2.2.1. Questionnaire. The questionnaire on participant data collection consisted of two parts: socio-demographic information on drivers and analyzes of clinical information.

2.2.2. Mini international neuropsychiatric interview (MINI). The MINI (DSM-V) is a diagnostic tool for mental disorders by interview with 10 items. Developed for clinical research or for use by clinicians, doctors, psychiatrists and psychologists in France and the United States (Lecrubier et al., 1997; Sheehan et al., 1997). It has better psychometric qualities when administered by a clinician than in self-questionnaires. The MINI is the worlds most widely used psychiatric structured diagnostic instrument of the world interview. It used by health professionals and mental health organizations in more than 100 countries. It presents a structured diagnostic interview, of a short duration of exploration exploring in a standardized way, the main psychiatric disorders of Axis I of the DSM-V. There are two ratings: DSM-V or ICD-10. In the first, the investigator must have made sure that the subject in his answer has taken each of the terms formulated in the question into account, (Tow YES among the first seven cases presents a sign of mental disorder). In this study, the ICD-10 rating used, there were three depressive episodes: mild depressive episode: at least two or three of the symptoms; average depressive episode: at least four of the symptoms; severe depressive episode: more than five of the symptoms (Sheehan et al., 1997; Sheehan et al., 1998).

2.3. Procedure & statistical analysis

The administration of the questionnaire and the MINI test was done at the main taxis stations throughout the city of Kenitra, and at the moment when the drivers were waiting for their tours to replace them with their colleagues. Indeed, clinical analysis was conducted during the interview with the drivers and, if necessary, some questions were explained in simple terms and accessible to all. Otherwise, Coding, processing and statistical analysis of the data were done with the SPSS V.20 software. Statistical tests were considered significant for a degree of significance $p < 0.05$.

3. Results

The average age of drivers of small taxis is 41.87 ± 6.27 years compared to 41.83 ± 5.03 years for NPD. The drivers worked 8 to 12 hours per day, 66.7% travelled on average 230 ± 53 km and the majority (93.3%) did not have other trades. In addition, average driving license seniority is significant between the two groups of drivers ($p < 0.001$). On the other hand, the majority (80%) of taxi drivers are married, 8.33% are single, 8.33% are divorced and 3.33% are widowed (Table 1). Also, the perceived health score is significantly different between the two groups of drivers ($p < 0.01$). In fact, the results also show that the majority of drivers surveyed said they were good to very good health (91.7% versus 77% of NPD). In addition, 18.3% of drivers reported smoking and 10% were alcoholics (Table 1). It indicates also that 26.67% of small taxis drivers reported feeling uncomfortable and one-third suffer from headaches. Symptoms of anxiety and irritability were reported by just over half (55%) of the drivers. (20% of them are discouraged), versus 30% of NPD ($p < 0.001$). In fact, 18.3% of drivers said they had switched to a red light versus 10% of NPD ($p < 0.001$) and 30.70% did not respect the prohibitions, versus a very low percentage of NPD ($p < 0.001$).

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Table 1. Prevalence of characteristics and various neuropsychological disorders and symptoms of the driver population.

	Chauffeurs of small taxis (PD)		Non-professional drivers (NPD)		χ^2	p
	n=60		n=60			
	M	SD	M	SD		
Age	41.87	6.27	41.83	5.03		
	n	%	n	%		
Level of study & Degrees					1.845	.398
Primary studies	19	31.66	19	31.66		
Secondary studies, High school	28	46.66	22	36.66		
Higher Education	13	21.66	19	31.66		
Permit seniority					22.051	.001
>18 ans	15	25	0	0		
>11 ans	27	45	25	41.66		
11 ans > A >7 ans	18	30	35	58.33		
Perceived health					12.681	<.01
Very good	25	15	41.7	25		
Good	66.7	40	35	21		
Bad	8.3	5	23.3	14		
Very bad	0	0	0	0		
Tired	66.60	40	30	20	10.390	.006
Tension disorders					21.053	<.001
Feeling of tension	19	31.67	14	23.33		
Feeling uncomfortable	16	26.67	6	10		
tremor of extremities	5	8,33	6	10		
Headache	20	33,33	6.67	6.67		
No sign	0	0	30	50		
Mood disorders					29.357	<.001
Anxiety	28	46,67	9	15		
Irritability	5	8.33	9	15		
Discouragement	12	20	1	1,7		
No sign	15	25	41	68.3		
Quality of work	34	56.67	7	11.67	34.660	<.001
Cellphone	32	53.30	39	65	0.543	.461
Past the red light	10	18.30	6	10	23.457	<.001
Non-respect of prohibition	18	30.70	7	11.60	30.452	<.001

M: Mean; SD: Standard deviation

The χ^2 test revealed a significant difference between the increase in the number of road accidents during the telephone conversation during driving ($\chi^2 = 24.251$, p <0.001). In this study, we have highlighted subjects who suffer from tired. A little more than two-thirds (66.60%) of drivers suffer from tired during and at the end of driving, compared to 30% of non-professional drivers (p = 0.006). Thus, a significant difference was shown by the χ^2 test between the feeling of tired in front of the wheel and the production of road accidents in drivers ($\chi^2 = 31.285$, p <0.001) and in non-professional drivers ($\chi^2 = 30.362$, p <0.001). According to the MINI, PD shows signs of mental disorders (severe depressive episode) significantly different from NPD (p <0.001). The psychopathological evaluation by MINI, according to International Classification of Diseases (CID-10), revealed the findings in (Table 2) 16.67% of PD have a severe depressive profile, 26.67% have moderate depressive episodes, and slightly more than half have mild depressive episodes. As for a small proportion 6.67% of NPD have a severe depressive profile, the majority 73.33% has mild depressive episodes and 20% has moderate depressive episodes. In addition, the χ^2 test allowed us to find a highly significant correlation between the MINI score and the production of road accidents (p <0.001), that is to say drivers who show signs of trouble. (Severe depressive profile) are more vulnerable to accidents.

Table 2. Representation of the various depressive episodes, according to the MINI, found in PD & NPD.

	PD		NPD		χ^2	p
Depressive episode	n	%	n	%	32.634	<.001
Low	34	56,67	44	73,33		
Average	16	26,67	12	20,00		
Sever	10	16,67	4	6,67		

4. Discussion

The study showed that the level of signs of mental disorders is relatively high in this professional category of drivers compared to non-professional drivers. Small taxi drivers have severe depressive episodes significantly different from NPD. Clarifying that a professional driver must have a strong practice of resistance to time pressure and overwork during driving. This study indicates that PD or NPD with signs of mental disorder are more vulnerable to accidents. The analysis of the results obtained by using the MINI and the clinical interview, reveals the existence of disorders of anxio-depressive behavior and behaviors associated with neuropsychological disorders of the perceptive and mnemonic type. Moreover, in a recent study, on the same sample, it was found that 17.5% of professional drivers complain of memory, perceptual and attentional changes (Echerbaoui et al., 2017). Otherwise, our results are consistent with that of the national survey of the Minister of Public Health which reveals that 48.9% of Moroccans suffer or have already suffered from mental disorders (Repère medical, 2006). Also, that which appears in the report of the National Council of the Rights of the 'Man in 2012, which announces that 48% of Moroccans suffer from mental disorders, 26.5% of them are victims of depressions (CNDH, 2012). Due to shortcomings or lack of research in this field in Morocco, we undertook this study within Kenitra city (North of Morocco). One of the riches of this study lies in its originality. It should note that it is rare work in Morocco was interested in identifying depressive profiles in a population of professional drivers as a factor generating accidents on public roads and especially with drivers of small taxis. Moreover, the notion of pressure or time constrains the feeling that the individual has to work under the pressure of time and to have to do too much work in too short a time (Brosset & Muller, 1999). In this study, 78.3% of drivers say they feel time pressure and 53%, say they do not have the time to work. These findings are consistent with a study conducted in Japan by taxi drivers that showed that driver' concerns about their daily gain increased stress and affected the quality of work (Nakano et al., 1998). This situation leads to competitions between taxis with negative consequences for road safety (CNPAC, 1999). Other factors associated with the production of road accidents highlighted such as the perceived health of drivers, the taking of breaks, and the use of mobile phones while driving and tired during and at the end of the driving. Indeed, it is inevitable that taking the break is another decisive factor and is essential to the work of professional drivers. The maximum duration of daily, driving and driving breaks aren't yet regulated in Morocco. In fact, 65% of drivers said they took a break after 5-6 hours of work, which is still far from global recommendations. According to the Ordinance on hours of work and rest (OWR or OTR), the driver must take a break of at least 45 minutes after 4½ hours of driving (OTR, 1995). Another study shows that the risk of being involved in a double accident after 11 hours of driving and the risk of an accident due to fatigue is 10 times higher at night than during the day (OTSC, 2001). Otherwise, difficult working conditions were also associated with the difficulty in maintaining the quality of work that reported in about 57% of cases. Thus, tired is particularly common among professional drivers, slightly more than two thirds of DP suffer from tired during and at the end of driving, versus 30% of NPD. These findings are consistent with several studies of drivers. In this regard, a study has highlighted the fact of driving over long distances, under pressure, on monotonous or poorly known roads, contributing to driver tired and their possible involvement in road accidents. (Hartley et al., 1996). Also, another study showed that tired accounts for 30% of fatal accidents in heavy goods vehicles and 52% of all truck accidents (Washington, 1999). The literature has also identified the negative impact of distractions during driving such as mobile phone use while driving (Backer-Grondahl & Sagberg, 2011). Previous work has shown that a natural telephone conversation can disrupt the detection of change in complex static road scenes (McCarley et al., 2004). Most of these results are consistent with our data, particularly in relation to mobile phone use: there was a significant difference between the increases in the number of road accidents during the telephone conversation during conduct. Morocco, so far, has not yet developed its vision on informative and applicative actions in the field of road safety to reduce or eliminate road accidents.

5. Conclusion

The present study identified the presence of mental disorders associated with behavioral problems of pace or depressive profiles involved in the occurrence of public road accidents related to the professional environment of drivers. Moreover, the clinical analyzes reveal the existence of the alterations of mnemonic processes, perceptive and attentional. These results highlight the need for emergency response from road safety and public health officials to this class of professional drivers to reduce or eliminate the number of road accidents and promote mental health at work.

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DO TIME-RELATED CUES SHIFT SPATIAL ATTENTION?

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Abstract

When a cue such as an arrow is presented at the center of a screen, participants typically respond faster to a subsequently presented target that is presented in the direction of that cue. This attentional shift has also been demonstrated for semantic cues such as pictures or words that refer to a spatial direction (e.g., the word "sky" has been shown to shift attention upwards). Here we investigated whether time-related words are also able to trigger attentional shifts. There is evidence that we represent temporal relationships on a mental left-to-right line such that events in the past are represented more left on this line whereas events in the future are represented on the right. We presented words as cues that either referred to the past ("yesterday", "previously"), the future ("tomorrow", "subsequently") or the presence ("today", "now") as the neutral condition at the center of a screen and had participants respond to a target presented after 150, 300, or 1250 ms either to the left or to the right side of the cue. We expected faster response times for congruent cue-target combinations (e.g., "tomorrow" and a target on the right side) compared to incongruent cue-target combinations (e.g., "yesterday", target right) for the 150 ms delay. For the longer delays, we expected the opposite effect, because of inhibition of return. However, the results revealed that the congruency of the cue type had no effect on the manual response times to the target. This suggests that time-related cues do not trigger shifts of spatial attention. Our results therefore shed some doubt on the assumed left-to-right association of time-related words.

Keywords: Spatial attention, time-related cues, attentional shift, cueing paradigm.

1. Introduction

Previous research has shown that attention can be shifted without moving our eyes (covert visual attention, Posner, 1980). Such covert orienting can be either exogenously (e.g., when a stimulus appears in the periphery and attention shifts reflexively to that location) or endogenously (i.e., when orienting is voluntary in response to a centrally presented stimulus, Jonides 1981; Müller & Rabbitt, 1989). For instance, if an arrow cue pointing to the right is presented at the center of a screen, participants respond faster to a subsequently presented target on the right (congruent target) than to a target presented on the left of the cue (incongruent target; e.g., Posner, Snyder, & Davidson, 1980). Often, this early effect of facilitation is followed by an inhibition of the previously attended stimulus (inhibition of return, IOR), when the delay between the cue and the target exceeds a certain time (about 250 ms; see Klein, 2000, for a review).

Attention can be shifted not only by centrally presented spatial cues such as arrows but also by gaze cues (e.g., Driver et al., 1999; see Frischen, Bayliss, & Tipper, 2007, for a review), and by digits (e.g., Fischer, Castel, Dodd & Pratt, 2003; Hoffmann, Goffaux, Schuller, & Schiltz, 2016). Words that refer to spatial locations can also shift spatial attention. Thornton, Loetscher, Yates and Nicholls (2013) presented either words or pictures of objects that are associated with a location in space (e.g. airplane is associated with up). The participants' task was to decide whether this object was "natural" or "man-made" by pressing either the upper or lower button. Thornton et al. (2013) found, for pictures as well as for words, that responses were faster when the response was given with the congruent button (see however, Estes, Verges, & Barsalou, 2008; Verges & Duffy, 2009 who observed opposite effects). A congruency effect for up and down responses could also be shown for abstract spatial cues such as "god" or "devil" (Chasteen, Burdzy, & Pratt, 2010).

A similar congruency effect might be expected for words related to time. There is some evidence that we represent time-related objects/stimuli on a mental line that is oriented from left to right. Santiago, Lupiáñez, Pérez and Funes (2007) showed that participants were faster when words that referred to the past were presented on the left rather than on the right. The reverse was found for words that referred to the future. This effect could be shown even for more indirect temporal associations. Weger and Pratt (2008) presented names of famous actors who lived either in the first or in the second half of the 20th century (e.g., Charlie Chaplin or Tom Cruise) and had each participant decide whether those actors were famous either before or after his or her own date of birth. The authors found faster "before" responses when the response was given with the left button and faster "later" responses when the response was given with the right button. Together, these findings suggest that we represent the concept of time on a left-to-right mental line.

In the present experiment we used a simple cueing paradigm to test whether words related to time are able to trigger a shift of spatial attention. We presented a word that either referred to the past, the future or, for control, the presence. The participants were instructed to respond to a target stimulus presented to the right or to the left of this cue. The cue was not informative, that is, targets could appear to the right or left side of the cue with equal probability regardless of the cue word. The target was presented either 150 ms, 300 ms or 1250 ms after the cue had disappeared. If time-related cues guide visual attention, responses should be faster for targets on the side implicitly associated with the cue (e.g., "past"-left or "future"-right, congruent condition) compared to targets on the other side (incongruent condition). No congruency effects should be observed for words indicating the presence (e.g., "now"). Congruency effects were also expected to depend on the time between the onset of the cue and the target (CTOA). That is, we expected to find faster responses for congruent compared to incongruent cue-target combinations only for the shortest CTOAs (150 ms). For the longer CTOAs we expected a reversal of this effect because of inhibition of return.

2. Methods

2.1. Design & participants

A 3 × 3 within-subject design with congruency (congruent, incongruent, and neutral) and CTOA (150 ms, 300 ms, 1250 ms) as factors was used. We measured the manual response time from the onset of the target stimulus.

In total, 20 participants (13 female) were tested for course credit (and vouchers) in this experiment. They were 24.7 years on average ($SD = 4.28$; range: $21 - 35$ years). Most of them (i.e., 18 persons) were right-handed. All participants had normal or corrected-to-normal-vision. The experiment was approved by the local ethics committee.

2.2. Stimuli & procedure

Six German words were selected as cues. Two of these words referred to the past ("gestern" yesterday, "vorher" previously), two to the future ("morgen" tomorrow, "nachher" subsequently) and two referred to the presence ("heute" today, "jetzt" now). The words were presented in grey on a black screen in "Franklin Gothic Book" in uppercase letters. They were about 1.1° to 1.8° wide and about 0.3° high. Each cue word was surrounded by a rectangle (1.9° × 0.7°, see Figure 1). In addition, both to the left and the right side of this central rectangle, in a distance of about 1.6°, two empty squares were presented (size: 0.7°). The experiment took place in a sound-proof booth. Stimuli were presented on a 21" monitor with a resolution of 1,024 x 768 px. The participants sat about 57 cm in front of the monitor. A chin rest was used for stable distance. Participants responded via the keyboard. They were instructed to press the space-button in response to the target using both hands. Stimuli were presented using Experiment Builder (SR Research, Canada).

At the beginning of a trial, a fixation cross was presented for 850 ms at the centre of the screen. Participants were instructed to fixate this fixation cross throughout the whole trial. The fixation cross was followed by the cue word which was presented for 550 ms. This cue word related either to the past, the presence or the future on respectively one third of all trials. On the disappearance of the cue, the fixation cross was again presented for 150 ms, 300 ms or 1250 ms before the target appeared in the square located to the left or to the right of the cue. Targets were presented in 75 % of the trials. The participants were instructed to respond as fast and as accurately as possible to the target and to withhold their response when no target was presented. If they did not respond within 1,500 ms, the target disappeared and a new trial started.

Participants completed four blocks of 144 trials each (36 per congruency condition and 36 catch trials without target). Each block lasted about seven minutes, with breaks in between. Before the first block, participants completed 12 practice trials (using other time-related words such as "earlier", "later", "currently"; in German: "früher", "später", "gerade"). The whole experiment lasted about 40 minutes.

*Figure 1. Sequence of events in a trial (incongruent condition).*
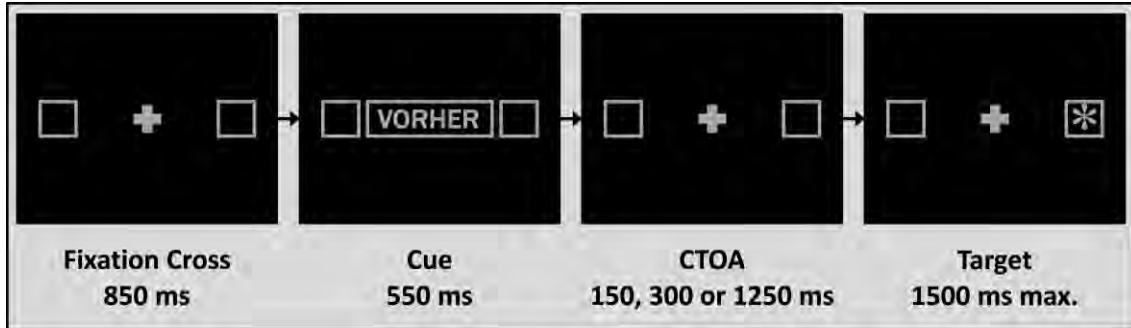
3. Results

Statistical analysis was conducted with JASP (Version 0.8.1.1). The data of all 20 participants were included in the analysis. Wrong responses (M = 0.2%, *SD* = 0.2) were excluded from further analysis.

Figure 2 shows the mean response times for the three cueing conditions and the three CTOAs. For a CTOA of 150 ms, participants needed 389 ms (*SD* = 42) for the congruent, 387 ms (*SD* = 38) for the incongruent and 382 ms (*SD* = 42) for the neutral condition. For a CTOA of 300 ms the findings were quite similar: Participants needed 384 ms (*SD* =44) for the congruent, 383 ms (*SD* = 38) for the incongruent and 387 ms (*SD* = 46) for the neutral condition. Finally, for a CTOA of 1250 ms, response times were 425 ms (*SD* = 45) for the congruent, 429 ms (*SD* = 44) for the incongruent and 429 ms (*SD* = 46) for the neutral condition. We conducted a 3 x 3 repeated-measures ANOVA with congruency (neutral, congruent and incongruent) and CTOA (150 ms, 300 ms, 1250 ms) as within-subjects factors. The ANOVA showed no effect of congruency, $F < 1$, but an effect of CTOA, $F(1.44, 27.26) = 62.23$; $p < .001$. Furthermore, also a significant interaction was observed, $F(2.91, 55.37) = 2.91$; p = .044, Greenhouse-Geisser corrected. Post-hoc tests for the main effect of CTOA (Bonferroni-corrected *t*-tests) showed that participants were in general slower for the 1250 ms CTOA compared to the 150 ms, $t(19) = 14.39$; $p < .001$ und 300 ms, $t(19) = 12.84$; $p < .001$ whereas there was no difference between the latter two conditions, $p >.05$. In order to investigate the interaction between CTOA and congruency in greater detail, we conducted separately for each CTOA a one-way ANOVA for repeated measures, followed by Bonferroni-Holm corrected *t*-Tests. For a CTOA of 150 ms, we found a significant effect, $F(2, 38) = 5.51$; $p = .008$, such that participants were faster in the neutral as compared to the congruent condition, $t(19) = 3.35$; $p = .01$. None of the other differences were significant. For the CTOAs of 300 ms and 1250 ms we found no differences with regard to congruency condition, all Fs < 1.

Figure 2. Mean response times for the three cueing conditions and CTOAs
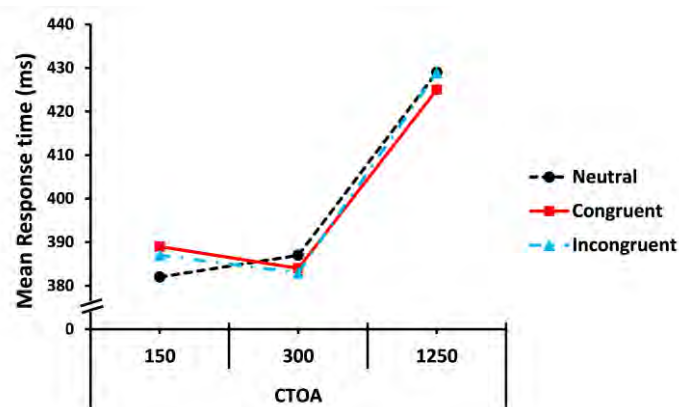
4. Discussion

We investigated whether time-related cues are able to trigger a shift of spatial attention to the left or the right side of space. Based on previous evidence (Santiago et al., 2007, Weger & Pratt, 2008) we had assumed that past-related words are associated with the left side of space, whereas future-related words are associated with the right side of space. To this end, we presented time-related words such as "yesterday" or "tomorrow" as uninformative central cues and had participants respond to a target presented after the cue either to the right or to the left side of space. We also varied the time between the onset of the cue and the target.

We did not find any evidence for an influence of word meaning on spatial attention. Targets on the congruent side of space (e.g. "yesterday" – left) were not responded differently from targets on the incongruent side of space. There was also no interaction with CTOA. We had hypothesized that congruency effects reversed for later CTOAs, but this was not observed. CTOA influenced response times regardless of congruency: Participants needed generally longer to respond to a target presented 1250 ms than 150 ms or 300 ms after the cue. At a CTOA of 1250 ms the participants probably did no longer expect the appearance of a target. The lack of a congruency effect is in contrast to previous results (Santiago et al., 2007, Weger & Pratt, 2008). This could be due to our use of a simple target detection task. Weger & Pratt (2008) had participants explicitly judge the life time of the actor depicted. This is similar to Thornton et al (2013) who showed congruency effects only when an explicit decision task was used on the cues but not in a simple target detection task. They suggested that their decision task enhanced the spatial meaning of the words. It should be noted, however, that words or symbols can shift spatial attention also in simple detection tasks. Fisher, Castel, Dodd and Pratt (2003) had used a simple target detection task with digits. They found that large digits (8, 9) direct spatial attention to the right side of space whereas small digits (1, 2) direct spatial attention to the left side of space. It is possible that the association of time-related words with space is not as strong as between numbers and space.

Unexpectedly, we found faster responses after neutral cues as compared to congruent cues at the shortest CTOA of 150 ms. It is possible that this is due to the words that we had selected for the neutral condition. Words such as "today" and "now" might trigger faster responses in general because they signal immediate attention. Correa, Lupiáñez, Milliken and Tudela (2004) showed that response to a target is affected when the cue provides information about the time of appearance of the target. In particular, participants responded faster after short CTOAs when this was indicated by a previously presented cue.

5. Conclusion

Our findings do not indicate that time-related words trigger shifts of spatial attention, at least not in a simple target detection task. It is possible that a shift of spatial attention might be observed in experiments that put more demands on the processing of the cue word. The findings here, however, speak against a direct and automatic association of time-related information and space.

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Workshops

SELF-CARE FOR THERAPISTS: USING CREATIVITY TO EXPLORE SELF-AS-THERAPIST

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Abstract

The purpose of this workshop is to help psychotherapists, psychologists, psychiatrists, social workers, and other mental health professionals increase their awareness of how the self of the therapist plays a role in the therapeutic relationship and impacts their own self-care needs. Therapists who actively engage in their own self-care are typically more able to be fully present in the treatment room. The ideal workshop would be limited to 20 participants.

Mental health professionals are highly skilled at giving care, attention and time to others. No matter the theoretical approach, we all have one thing in common – we show up for other people, and this use of self guides the process of change.

In this workshop we will creatively explore the ways in which sharing parts of yourself, also known as how you show up, is present in the therapy space. We will also look at how we take care of ourselves, how we acknowledge our own vulnerability, and how we take care of ourselves within this context of self-as-therapist. These concepts will be explored via an arts-based approach (no experience necessary!) and combined with writing and group discussion.

Participants can expect to leave the workshop with a clearer idea of how our personhood shows up in the work we do. Participants will also learn to identify what they currently do, or what they need to do in terms of self-care, and how to continue to meet those needs.

Keywords: Self-care, mental health, workshop, self-as-therapist, creativity.

1. Self-as-Therapist

The concepts of self-as-therapist, the wounded healer, and person-of-the-therapist are united with the idea that the experiences of the therapist as an individual can impact the ways in which the therapeutic alliance is forged and how effective the therapist is at connecting with client needs. Awareness of one's sense of self is integral to the process; "When I am in touch with myself, my feelings, my thoughts, with what I see and hear, I am growing toward becoming a more integrated self." (Satir, 1987, p. 23) A more integrated self can lead to the ability to more fully accept one's own faults or challenges, thus helping to deepen the potential connection with the client. In order for that type of connection to be of valid therapeutic use, it needs to be appropriate to the context and a conscious choice, which is actively directed by the therapist (Aponte & Kissil, 2016).

How each individual therapist chooses to integrate their use of self into their practice depends a great deal on the theoretical approaches utilized. If one practices from a feminist approach, the use of self-disclosure is seen as an extended part of the use of self and adds value to the therapy process. In narrative therapy, the therapist looks at the stories they tell themselves and others, how they are told, and the context in which these stories may impact therapy. Who a therapist is, and how they exercise their professional power is a major theme of this perspective (Cheon & Murphy, 2007). These approaches move away from viewing personal experiences as a problem and towards answering the question how can your experiences be helpful (Timm & Blow, 1999).

By viewing personal experiences as both potential obstacles as well as strengths, a therapist can be afforded the opportunity to take a both/and perspective: to see how an experience can get in the way of successful therapy, and how it can help one to become a better therapist (Timm & Blow, 1999). Keeping context and the question *"What purpose does this serve?"* in mind may assist one in deciding if revealing a part of ourselves or our experience will benefit the therapeutic relationship.

2. How therapists show up

Aponte (2016) states, "As therapists, we need to be able to work with all of who we are within the various component tasks of the therapeutic process at the appropriate clinical moment" (p. 5). In order to achieve this goal of working with all of who we are, it is vitally important that we learn to be aware of how we show up. As discussed by Yalom, without being in one's authentic self, using techniques have little consequence and may even be harmful (1980).

Paying attention to how we show up, and being in our authentic self sounds like a lot of pressure and work. But it is important to remember that our relationship with our work has a tremendous impact on both our personal life and our experiences with others (Lipsky & Burk, 2009), and in recognizing how we show up we can be better able to maintain our self-care and level of health necessary for responsible therapy. To remain open and at the same time aware, creative thinking and flexibility is essential. Too much structure, either in our personal life or therapeutic approach, can shut down our ability to connect with the client, or may not allow for the space for them to feel seen by the therapist.

3. Creative self-care

Helping professionals are highly skilled at explaining the benefits of self-care to the people they work with. However, it is easy to put ourselves at risk of overlooking our own physical and emotional needs. Engaging in a creative self-care process can create a safe place to hold and process what comes up for us, and transform abstract thoughts and feelings into something concrete that can become a focus of reflection (Deaver & McAuliffe, 2009). Creativity and art making are deeply personal experiences, and because most adults have not engaged with art making since childhood, they may lack the confidence to experiment with expressing themselves through art or crafting (Harter, 2007). In order to move beyond the fear that we aren't "good enough" or "don't know how", we need to set aside the expectations of technique and engage in the fun and joy of the experience. It is the process of making of the imagery that has the value, not the product.

Creative self-care can encompass anything from the currently very popular adult coloring books to paint-by-number kits, knitting or crocheting, taking an art class, or scrapbooking. Art making can help to reduce the stressors of both everyday life and more traumatic experiences. Art helps people to express thoughts and feelings that they don't have the language for, and creates an opportunity to build an emotional vocabulary (Stuckey & Nobel, 2009).

Self-care and attunement to how we show up is a never-ending process. Learning to engage creatively with these processes can allow for experimentation with new ways of seeing and experiencing. Practicing art is just that; a continuous practice that evolves and changes with us as we learn and grow, and aids in our ability to hold complexity.

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HOW TO REACH THE SUBJECTIVITY THROUGH COGNITIVE TESTS

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Abstract

We show issues of evaluation today. We will defend the idea that assessment is primarily in the service of the human subject regardless of demand.
From the Wechsler test, we will discuss using cross-quantitative and qualitative evaluation to understand and facilitate the clinical encounter with a child.
Our goal lies in the approach of the functioning of the child's subjectivity.
Through two clinical examples, we will illustrate how the subtests of this test speak about the investment of the child in terms of its internal and external objects.
The first example will highlight the problem of the subject through the geography of its investment areas.
The second example will come to question the nature of the anxieties and their significance.
In conclusion, this test brings an original perspective on the mental, psychic processing of the child which discusses the initial demand.

Keywords: Evaluation, cognitive & projective tests, subjectivity, external & internal environment.

1. Introduction

We show issues of evaluation today. Our environments, social, school, professional, sportive pay a strong attention to the evaluation but we never take enough time to analyze the impact of these assessments on the human subject, in his subjectivity.
We will defend the idea that assessment is primarily in the service of the human subject regardless of demand. But, how to reach this goal when all are waiting for scores regardless the internal objects of the human subject!
Our perspective is Psychanalytic and developmental Psychology.

2. Objective

From the Wechsler test and others which support or highlight particular points for a better understanding of the patient, we will discuss, using cross-quantitative and qualitative evaluation to understand and facilitate the clinical encounter with a child.
Our goal lies in the approach of the functioning of the child's subjectivity.

3. Methods

Through two clinical examples and tests like the Wechsler tests, TAT, we will illustrate how the subtests of these tests speak about the investment of the child in terms of its internal and external objects.

4. Discussion

The first example will highlight the problem of the subject through the geography of its investment areas.
The second example will come to question the nature of the anxiety and its significance.
These two clinical cases show the crucial role in listening and meeting to avoid and to prevent some pathological trajectories, like the intellectual debilitation process for the first clinical case and the hyperactive trouble for the second clinical case.
The first clinical case is about Georges, 9 years old:

From the situation of Georges, the questioning is about the relevance of the WISC 3 in relation to the questioning of child psychiatry unit nurse team. This boy had to be admitted to the hospital (only the day). He presented a hyper motor agitation which aroused the irritation of professionals. These professionals questioned the indications of this admission because they were impatient in front the behavior of George.

The introduction and use of the WISC Test have to defer their impatience and enable them to meet Georges differently. Their representations on this child could be redesigned during the psychometric assessment.

The psychometric subtests help to approach the internal world of Georges and question his orientation in child psychiatry hospital. The main scores is 7.4. This boy seems to present some difficulties in terms of body restraint. He is very agitated. He mobilizes auto-soothing processes to reduce the distress generated in the relationship to the other.

He seems to not be able to rely on internal representations. The conflict at work is the translation of point of suffering that stills active, which expresses and is derived by the body. The significant weak is met in the resolution to the subtest "cubes" (score=4); it refers to an early anguish or early separation that was organized around the fear of losing the link.

Georges overinvests which is concrete and this can be heard as a defense against the narcissistic collapse. He has the characteristics of a child whose suffering and manic events would be an over compensation to fight risk of depressive collapse.

He uses the eagerness to avoid conflicts. A process of debilitation is underway as though Georges preferred to be silly rather than suffer. However, the sympathy that he releases, the "seduction" attempted in the relationship that he invests, and the success to the subtest of "arrangement of images" (score =11) are indicators of good predictions for a possible psychological support.

Second clinical case about Victoria, 6 years old:

Her psychological assessment highlights a level of verbal intelligence very above the standard expected at his age (2.2% pop). Victoria has success to solve "Similarities", "Vocabulary" subtests and to the optional subtests "Understanding" and "Information". I note that this little girl has a strong sense of what is fair and unfair. She gives responses and has behaviors that can sometimes express themselves excessively. Youngest, she wished to exercise the profession of cop, one who straightens the wrongs.

As the level of fluid intelligence, scores place her at a level above the average area (between 16, 1% and 6.7% of the population of reference). This level shows that this form of intelligence associated with verbal intelligence is a general standard which is also ranked between 16, 1% and 6.7% of the reference population. This general ability factor indicates a good development of abstract of visual-perceptive reasoning and spatial thinking (cf. 'Cubes'; "Puzzles") and verbal problems solving.

This general ability factor indicates a good development of abstract of visual-perceptive reasoning and spatial thinking (cf. 'Cubes'; "Puzzles") and verbal problems solving.

In order to complete the cognitive aspect of this profile, I add the idea that she puts more time than others to make the notes written on the Board on his notebook for example. She makes her written and/or drawn productions in more long time than average. This fact increases her agitated behavior.

This little girl has a good ability to imagine stories from photos, but some of them highlight anxiety. Victoria was trying to escape from feeling powerless and agonizing of ending up alone and neglected. However, she can deploy strategies to contain their emotions that beset her like the fact of being forgotten; being able to find another way to achieve her goal.

The TAT projective test confirms anxiety items found in the Wechsler Test. A tyrannical power is internalized in the psyche of this child and explains in part her behavioral agitation. In addition, the practice of Psychology brings a space-time framework that promotes the problematics of the subject and his psycho-emotional pace.

5. Conclusion

In conclusion, these tests bring an original perspective on the mental, psychic processing of the child because their results discuss the original demand. They finally make a spotlight on the authentic meeting between a clinical psychologist and a patient and enable to overcome the illusory or limited power of scores resulted from cognitive tests.

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CHRONIC PAIN SYNDROME: CONTINUUM OF ASSESSMENT, TREATMENT, AND TREATMENT OUTCOME EVALUATION

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Abstract

Continuum of assessment, treatment and treatment outcome evaluation of chronic pain syndrome (CPS) will cover objective pain assessment procedures for psychological consultations/pre-surgical psychological clearance, Med/legal evaluations, evidence based treatment planning and biopsychosocial rehabilitation model of pain management approach(s) (Gatchell, 1997 & 2006). The assessment sections will include the initial screening and advanced differential diagnostic batteries. The Initial screening, in addition to clinical interview, mental status examination, medical records review and thorough background history will also include Millon Behavioural Medicine Diagnostic(MBMD) (Millon, etal., 2001), Pain Patient Profile (P-3) (Tollison, etal., 1995) and Pain Disability Index (PDI). This brief battery will be also used for treatment outcome evaluations. The advance battery will include Minnesota Multiphasic Personality Inventory (MMPI-2) (Hathaway, etal., 1989) and Millon Clinical Multiaxial Inventory (MCMI-III & IV) (Millon, etal., 1997 & 2015) for differential diagnosis to rule out comorbidity of severe mental and or personality disorders and malingering. Each instrument's utility and incremental validities will be discussed along with case vinyetes, relevance to Med/legal evaluations. The vinyetes will include psychologically/psychiatrically disabling, conversion and neurotic patterns on MMPI-2 (Gatchell, 1997 & 2004; Turk, etal., 2002; Gatchell, etal., 2006) and MCMI-III (Argun, etal., 2008; Argun,2013 & 2017). Cases from newer version of Millon Clinical Multiaxial inventory (MCMI-IV) will be also compared to MCMI-III. Target audience may include clinical, medical, health psychologists interested in pain assessment, treatment, treatment outcome evaluation, pre-surgical consultations and med/legal evaluations.

Keywords: *Assessment, Pain, MMPI-2, MCMI-III-IV, MBMD, P-3.*

1. Introduction

The necessity and significant contributions of psychological assessment and bio-psychosocial approach to differential diagnosis and treatment of patients with chronic pain syndrome (CPS) are increasingly being recognized, especially, in the light of the recent crisis in medical model in medication alone approach to pain management-opioid Crisis. Medical psychology has important role and responsibility in becoming as an essential part of quality care, preventive medicine and interdisciplinary functional restoration programs. The "medicine" is overdue, to update, upgrade and integrate mind-body and get rid of the antiquated dualism in education, training and practice. Educational and training programs in clinical psychology, psychology boards and many state legislators are beginning to recognize the need for training medical/clinical psychologists in the United States. Increasing Prescriptive Authority, RxP Licensure for trained psychologists, is a result of such recognition and realization. Psychotropics, including pain medications, would be soon considered as one of the treatment modalities in practicing medical psychology and psychiatry.

Medical model alone has led to high rates of permanent total disabilities (PTD) and deaths due to chronic pain and overdose on opioids in the recent decades. According to Centre for Disease Control and Prevention (CDC: December 30, 2016) 61% of 47055 drug overdose deaths involved an opioid in 2014. Unintentional opioid overdose related deaths, driven by commonly prescribed opioids, heroin and synthetic opioids like Fentanyl have continued to increase to more than 59000 deaths in 2016, that President Trump on October 26, 2017 directed the Department of Health and Human Services to declare the opioid crisis a public health emergency. Among other contributing factors personality and or mental disorders seem to be playing significant role in pain becoming chronic (CPS) and building dependency on opioids.

2. Chronic pain & fibromyalgia

Research in different areas of pain assessment, in recent years, has led us to new understandings of CPS and fibromyalgia syndrome (FMS). Neurochemistry and endocrinology of acute and chronic pain are totally different throughout the peripheral, autonomic nervous and central nervous system. The perception of the injury and pain as a life changing traumatic and catastrophic accident, changes the neurochemistry of the central nervous system (Mails-Gagnon, Granolas, Downer, & Kwan 2003; Nijis, J & Van Houdenhove, 2009). Not every acute injury and pain, regardless of the severity of the injury, becomes a CPS or FMS. There seem to be significant differences between localized acute pain and generalized CPS&FMS neuro-physiologically (Nijis, J, & Van Hoodenhove, 2009) and psychosocially/psychometrically (Gatchel, 1997; Turk & Gatchel ,2002; Gatchel, Kishino, & Robinson, 2006). In the process of pain becoming chronic and generalized central pain pathways get over-sensitized. Functional MRI studies on patients with CPS also, have shown altered somatosensory –evoked responses in specific forebrain areas (Mailis-Gagnon, Granolas, Downar, & Kwan, 2003).

3. Bio-psycho-social model

Bio-psychosocial studies on injured medical patients and their responses to and coping with chronic pain date back to 1980s and 90s. Amongst many contributing factors, personality traits and disorders seem to play very significant roles in the patient's abilities to cope with the injury and pain differently. Gatchel and his colleagues have found a psycho- pathologically disabling pattern on MMPI-2, associated with CPS and FMS. In his view, patients with borderline personality disorders are more likely to become disabled due to chronic pain (Gatchel, 1997 & 2006). Three distinct patterns on the MMPI-2 profiles of CPS: have been identified as **a**. The Classic "conversion V" where MMPI-2 Scales 1, 3, 2 are significantly elevated-above TS of 65 with 1&3 significantly more severe than Scale 2; **b.** The "Neurotic Triad" pattern in which the MMPI-2 Scale 2 is significantly more elevated than the Scales 1 and 3; and **c**. The "pathologically disabling" pattern where the MMPI-2 has four or more clinical scales significantly elevated, including but not limited to Scales 1, 2, 3, 4, 6, 7, &8 (Gatchel, 1997 & 2006). Millon Clinical Multiaxial Inventory (MCMI-III) appears to compliment and add to the incremental validity and specificity of the MMPI-2 (Argun and Singleton, 2008 & Argun, 2013 & 2017).

4. Recommended pain assessment battery

In addition to a thorough clinical interview, mental status examination, history, medical records review, Millon Behavioral Medicine Diagnostic (MBMD), and Pain-Patient-Profile (p-3) along with subjective rating checklists of Pain Disability Index (PDI), Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Neuropsychological Symptoms Checklist (NSC) Whaler Physical Symptoms Inventory (WPSI) and Insomnia Severity Index (ISI) were used for the initial screening. Advanced differential diagnosis MMPI-2 and MCMI-III or IV were used.

. Some have criticized the MMPI-2 for its length (567 items) and some do not see it as useful and relevant to pain/injury patients. Most Qualified Medical Evaluators, however, use the MMPI-2 or MMPI-2-RF and MCMI-III for their abilities for differential diagnosis, ruling out comorbidity, especially exaggeration and malingering tendencies. MMPI-2 and MCMI-III together are able also tease out the gender and culture/ethnicity factors affecting CPS and FMS (Argun, 2015 and 2017). Several studies have looked into the effects of gender, age, ethnicity/race/genetics and culture on pain perception, coping with and adjustment to chronic pain and disability issues (Unruh, 1996), but mostly based on interviews and or self rated pain perception measurements or biological, genetic models. Most psychological research in this area have focused on the assessment (Gatchel, 2004) of self efficacy, depression and disability (Amstein, Wells-Federman, & Caudill, 2001) and cognitive behavioral treatment and management of chronic pain (Jensen, etal. 1999).

5. Clinical and personality patterns

A great deal of discussion and time will be spent on the utility of the MMPI-2 and MCMI-III with pain patients. Two decades of clinical and research work with this population have shown complimentary incremental validity and utility between these two tests with this population. For example, CPS and FMS patient common MMPI-2 profile tends to be significantly elevated (T-Scores > 65) on scales of 3,1, 2, 8, 7 & RC1. Both men and women's significant scores on the MMPI-2, from the most severe to the least, were on the scales 3, 1, 2 (Conversion Valley), RC1 (Som = Somatic Complaints), 8, &7(Cognitive and emotional problems).

Correlation analysis between the MMPI-2 basic clinical and MCMI-III severe personality disorder scales of Schizotypal (S), Borderline (C), and Paranoid (P) indicated the strongest correlations

between the Scales 2 (D), 6(Pa), 8(Sc) & 0(Si) on the MMPI-2 and three scales of S, C, and P on the MCMI-III. There was also a strong correlation between the scale 4 (Pd) of the MMPI-2 and the scale C of the MCMI-III. The scales S and C of the MCMI-III also correlated strongly with the scale 7(Pt) of the MMPI-2. Scale 9 (Ma) on MMPI-2, also, correlated strongly with the C scale of the MCMI-III. In putting the strongest correlations above in order, the Borderline personality disorder scale (C) correlated with seven of the MMPI-2 scales respectively, from high to low, with scales 8, 7,6,2,4, 9, &0, a psychiatrically disabling pattern. The schizotypal personality disorder scale (S) correlated highly with 5 of the MMPI-2 scales of 0, 9, 7, 6, &2. The Paranoid personality disorder scale (P) only correlated with 4 of the MMPI-2 scales 0, 6, 8, & 2.

The MCMI's Borderline personality disorder scale (C) had the highest correlation of .100 with the scale 8 (Sc), of the MMPI-2. Both Schizotypal (S) and Paranoid (P) scales of the MCMI's highest correlations of .74 - .80 were with the scale 0 (Si) (social isolation) of the MMPI-2. RC1 (Somatic Complaints) of the MMPI-2 correlated highly and consistently with all three severity groups of Schizotypal (S), Borderline (C) and Paranoid (P). Other findings suggested the MCMI-III "Low" group associating with the MMPI-2 "Conversion V". The "Moderate" and "Elevated" groups of scores were not significantly different and correlated with both the neurotic triad and psycho-pathologically disabling patterns (Table2).

6. Vignettes & protocols

The handouts will include protocols and vignettes for illustrations and for interactive discussions throughout the workshop presentation.

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IDENTIFICATION AND TREATMENT OF CHILDHOOD ANXIETY

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Abstract

Purpose
- Identify ways to effectively assess and specific anxiety disorders and issues in children
- Discuss and demonstrate various treatment strategies
- Provide guidance on selection from among different anxiety treatment strategies
Background
- Estimates of lifetime prevalence of childhood anxiety problems ranges from 20-30 percent. About 5% of those are considered severe. Anxiety, a normal and adaptive mechanism, becomes problematic when it is excessive, becomes unmanageable, and causes interference in one's functioning.
- To effectively assess anxiety in children, it is important for clinicians to understand the mechanism of anxiety for each individual, the factors influencing the anxiety, and typical patterns of anxiety in children. Moreover, it is important to effectively select from various types of interventions based on evidence.
Key points
- This workshop will cover identification of anxiety in children and understanding how it corresponds to developmental patterns.
- Strategies will include exposure and response prevention (ERP), changing cognition, behavioral responses, and decision-making, with brief demonstration of each technique.
- We will briefly review evidence for pharmacological treatment for various types of anxiety.
- We will discuss how to manage complicated and challenging types of presentations.
Procedure
- Information will be presented in a discussion format, with interaction and questions from attendees. There will be interactive demonstration of several of the major techniques for anxiety treatment. Finally, we will discuss as a group challenges and complications in childhood anxiety treatment.
Description of the participants
Participants will be mental health professionals (psychologists, psychiatrists, therapists, counsellors, etc.) who wish to develop skills in understanding and providing evidence-based treatment for anxiety in children. Maximum number will be 30.

Keywords: Anxiety, children, cognitive-behavioral therapy, exposure therapy.

AUTHOR INDEX