

FEATURES OF THE PEOPLE REHABILITATION POTENTIAL WITH DIFFERENT CHARACTERISTICS OF LEARNED HELPLESSNESS AND HUMAN LIFE-WORLD STABILITY

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Abstract

Rehabilitation potential is considered as the ability of a person to activate his biological and socio-psychological mechanisms for restoring destroyed health, employability, personal status and estate. It can be realized under the certain conditions and the consolidated assistance of rehabilitation services and society. The efforts of specialists (ergotherapists, social workers, clinical psychologists) and the closest social environment can be effective in specific conditions. The major participant of the rehabilitation activity is initially the person who needs rehabilitation. It is suggested that the problem of rehabilitation potential correlates with problem of learned helplessness of the person and problem of human life-world stability (constructive, unconstructive, stagnant). These two phenomena are similar in their definition and revealing the level of responsibility of the person for his life (Deci & Ryan, 2000). 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 (Volkova, 2016). It is very important for a person to have successful experience in overcoming difficulties. Then rehabilitation activities can rely on this positive experience and provide more confident progress of a person towards the restoration of lost functions. The human life-world stability is considered in psychology as an essential indicator of the success of the life self-fulfillment and transference of abilities inherent in him (human) into reality (Loginova, 2012). The important indicator of rehabilitation success is patients’ ability to use the newly obtained functions in everyday life.

Keywords: *Rehabilitation potential, learned helplessness, human life-world stability.*

1. Introduction

In the last decade rehabilitation as the direction of medicine is constantly developing, modifying, obtaining the new features and aspects. At the same time, violation of health acts as an important condition of this concept applicability, which in this connection allows to appear various aspects of rehabilitation (“recovery treatment”, “medical rehabilitation”, “recovery medicine”, etc.). Rehabilitation in medicine is understood as restoration of organismic functions to adequate (normal) values after any organic injury (stroke).

Nevertheless, nowadays the idea that different people are restored differently becomes obvious: with different speed, with different staging of groups of muscles inclusion, with different opportunities of result maintaining after hospital treatment. For the description of the above listed parameters of rehabilitation course the term “rehabilitation potential” was endenized into a scientific lexicon. Rehabilitation potential includes possibilities of an organism to restoration, motivation of the patient, possibility of patient’s adaptation to the world around, his socialization process, etc. The idea of rehabilitation potential is being formed according to ICF (International Classification of Functioning, restrictions of activity and health), NIHHS (National Institutes of Health Stroke Scale), Renkin scale, ICD-10 (International Statistical Classification of Diseases and Related Health Problems) and other important for ergotherapy parameters. These scales widely clasp all spheres of the patient, but can mean absolutely different defeats at the same level: for example, sedentary in a carriage and able to operate it

perfectly patient is as well socialized, as patient walking with a unilateral support; or the patient with aphasia is as deeply struck, as the patient confined to the bed.

The analysis of scientific definition of the term “rehabilitation potential” allowed us to reveal several essential positions:

1) The concept of “the rehabilitation potential” is inexact, insufficiently clear and is affected by the influence of not clinical context (Enderby, Pandyan, Bowen, et al., 2017).

2) Rehabilitation potential is considered as the ability of a person to activate his biological and socio-psychological mechanisms for restoring destroyed health, employability, personal status and estate, but not medical stuff activity (Sivukha, Enikeeva, 1997).

3) Representation and specification of patient rehabilitation potential is necessary not only for the correct rehabilitation program development, but also for forecasting the potential efficiency of the held rehabilitation activity (Haselbach, Renggli, Carda, et al., 2014), for estimation of the possible restoration level of a broken function and, therefore, the rehabilitation forecast.

4) The described in the contemporary studies clinical cases indicate the possibility of gradual change concerning the rehabilitation potential level: initially all patients by default have high rehabilitation potential and take a usual rehabilitation course, but during the subsequent hospitalization at the same medical institution doctors can estimate the remote results and change the level of rehabilitation potential. However, patients with various psychological characteristics can have problems with restoration of functions already at the first stage of rehabilitation that demands inclusion of the clinical psychologist in multidisciplinary team on a constant basis (Petryaeva, Shnayder, Artyukhov, Sapronova, Loginova, 2017).

We suggested that the problem of rehabilitation potential correlates with problem of learned helplessness of the person and problem of human life-world stability (constructive, unconstructive, stagnant). These two phenomena are similar in their definition and revealing the level of responsibility of the person for his life (Deci & Ryan, 2000).

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 (Volkova, 2017).

It is very important for a person to have successful experience in overcoming difficulties. Then rehabilitation activities can rely on this positive experience and provide more confident progress of a person towards the restoration of lost functions.

The human life-world stability is considered in psychology as an essential indicator of the success of the life self-fulfillment and transference of abilities inherent in him (human) into reality (Loginova, 2012).

2. Design

The study was of comparative type and was organized in the two samples to reveal the degree of difference manifestation. All respondents subscribed voluntary informed consent to participate in the study in accordance with the norms of the Local Ethics Committee of Krasnoyarsk State Medical University. The study was conducted from 2017 until 2018.

Criteria of inclusion in the research:

- patients with a trauma of cervical section of the spine as one of the most severe injuries on consequences for the human;
- agreement to participate in the study subscribed in the informed consent;
- duration of a disease is no more than two years;
- status of a graduate (to provide high cognitive inclusiveness);
- age up to 50 years (to avoid cases of dementia processes influence on the research data);
- existence of close social environment for providing psychological support in rehabilitation process;
- the number of hospitalizations is more than one previous (that indicates adaptability to rehabilitation process);
- no more than one serious associated disease in anamnesis.

40 people were involved in the study.

The general number of patients was divided into two groups according to the level of rehabilitation potential.

- The first group – patients with low level of rehabilitation potential.
- The second group – patients with high level of rehabilitation potential.

3. Objectives

The aim of the research is to study the features of the patients' rehabilitation potential with different characteristics of learned helplessness and human life-world stability:

The main objectives of the research are:

- 1) To explore how the state of the learned helplessness influences the features of rehabilitation potential?
- 2) To reveal how the specifics of human life-world stability influence the features of rehabilitation potential?

4. Methods

At the preparatory investigation stage, the assessment of rehabilitation potential was carried out by means of the following methods:

- neurologic (Renkin Scale, Bartel Index, OSS (Orgogozo Stroke Scale), ECOG (Karnovsky Index), RMI (Rivermead Mobility Index)),
 - psychological (SF36, Riff scale, EPQ, E.B. Fantalova's questionnaire, BAI (Beck Anxiety Inventory), Cattel Sixteen Personality Factor Questionnaire, Dembo-Rubenstein test),
 - neuropsychological techniques (MMSE, MOCA)
- with deciphering of their result.

These scales are validated and have clear evidential base. The assessment of rehabilitation potential (high, average or low) was provided on the basis of the obtained data.

The open-type questionnaire "Learned Helplessness Genesis Value Judgment" (Volkova, 2016) was applied to study the unique ways of learned helplessness development and identification of its place in life of a specific person.

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

Mathematical processing of the obtained results was carried out with use of the SPSS Statistics 21 software packaging.

5. Discussion

All data (responses and quotations) obtained in the two groups of respondents by means of the open-type questionnaire "Learned Helplessness Genesis Value Judgment" (Volkova, 2016) were systematized in accordance with the instruction and are presented in Table 1.

Table 1. Results of the questionnaire "Learned Helplessness Genesis Value Judgment".

Learned helplessness criteria	1 st group		2 nd group	
	Before disease	During disease	Before disease	During disease
Estimation of the health state (somatic status)	I was diagnosed with prematurity at my birth Frequent diseases of various genesis Asthenia	I feel deeply sick I do not feel healthy I'm not alive, there is no life in me	Sometimes I suffered from viral diseases Something rarely happened I always considered myself as healthy	I'm overcoming the disease I do not define myself as a patient I'm restoring
Estimation of the emotional state	I was morally humiliated in my family I suffered from experiencing difficult life periods Life has broken me, I'm broken	The trauma cracked me even more I am emotionally devastated I have no energy for emotion	Positive experiences of joy from openings, communication, achievements	Experiences of impossibility to be active, other emotional reactions remained the same
Estimation of the motivation level	I always wanted to be active, but it was impossible	There is no desire to be active I accepted this situation (disease), there is no motivation on changing it	I was active, I clearly understood what I want I was strongly motivated on achievements I always competed with others and myself	I am ready to fight for health I have experience of achievements, I use it for achieving results

Estimation of the will-power level	Everything came easily for me, I never trained my will-power The will was weak – I could achieve nothing through efforts	If someone who would direct me is absent, I do nothing	I was always a strong-willed person I was always on friendly terms with my will-power: I can do everything overcoming my thought “I do not want” to complete anything I’ve started doing	Now I became weaker, wanted to give up smoking, but didn’t succeed in it I try to overcome the situation: it’s impossible to reach anything without efforts
Locus of control estimation	While parents were alive, they controlled me. When they died – it was necessary to become independent Support of people around me was always necessary	Now external control is very important (the doctor, the nurse) Without someone who “adjusts” I cannot do anything	Generally, it was 50/50 It differs from situation to situation, but I tried to control everything myself I was accustomed to rely on opinion of only the closest – that’s the way I lived	Now in those aspects where I am not an expert (concerning treatment), I do not interfere – I trust experts Situational, about 50-70% is of my control
Estimation of cognitive sphere	Though I was ill in the childhood, I was smart I studied well at school I was a middling	I try to maintain my wits working I puzzle crosswords	My development was normal I never had problems with study I had excellent memory	I do not notice any deterioration so far Everything is interesting, I read a lot
General atmosphere in child-parental relations	In my childhood I was beaten by parents I was afraid of parents I did everything my parents wanted only because of their rigid style of education	I do not want to be a burden to my children I have difficult relations with my relatives	We had a great family, I have built my own family by this example Parents always understood me I was never shouted at, parents explained me everything	My relations with family remained wonderful I feel support All relatives are ready to help me
General characteristic of relations with social environment	I had no friends I was a soul of any company It was pleasant to communicate	I limited communication because of the defect I am ashamed of friends as I am a disabled person I do not communicate with anybody, except relatives	Communication brought me pleasure I always was in the center of events, possessed all the information I trusted to my social environment	My friends and acquaintances often visit me I communicate actively in social networks People often ask me for advice

All results of the two groups of respondents obtained by means of 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 method “Investigation of the Human Life-World Stability”

Options	1 st group	2 nd group
Temporality of events tendency	The present 30% The past 40% The past - the present 30%	The present - the future 70% The past - the present - the future 30%
The ratio of verbs	The present 40% The past 40% The past - the present 20%	The present - the future 70% The past - the present - the future 30%
Criterion for the described events content selecting	Chronotopic 10% Topological 30% Biographical 60%	Chronotopic 40% Topological 50% Biographical 10%
General emotional background of events	Positive 10% Neutral 40% Negative 50%	Positive 70% Neutral 20% Negative 10%

The meaning of the described life events	The overall direction of the development line is conserved 20% General orientation is not withheld 20% Center of the development line 20% Completion of the development line 40%	The overall direction of the development line is conserved 60% General orientation is not withheld 30% The beginning of the development line 10%
Attitude to events	Valuable 10% Responsible 10% Rational 80 %	Valuable 70% Responsible 20% Rational 10%
Continuity of personal story	Retained 10% Situational 30% Missing 60%	Retained 70% Situational 20% Missing 10%
Creative reflexive position	Holistic reflexive position 10% Situational reflexive attitude 30% Absence of a reflexive relation 60%	Holistic reflexive position 70% Situational reflexive attitude 20% Absence of a reflexive relation 10%

6. Conclusions

It was revealed that people with low rehabilitation potential had problems during the childhood or youth period which promoted formation of the learned helplessness syndrome. The difficulties in the course of personality development significantly reduce possibilities of present recovery period. It is hard for such patients to cope with difficulties independently, as an active person, from the subjective position. They narrow life space because of defect, experience mainly negative feelings and emotions. Besides, their life has fragmentary character: it is broken into two parts “before the disease” and “during the disease”. They feel fear thinking about their future. They are not focused on the reflexive attitude to life and themselves. Their critical thinking is reduced.

As for patients with high rehabilitation potential they have resource for restoration during disease: they are optimistic, capable to control their own life, keep social contacts, try to be useful to others. Their life is represented as more complete, complex, filled with sense. They are capable to learn experience from current situation and to give support to people around.

The important indicator of rehabilitation success is patients’ ability to use the newly obtained functions in everyday life. However, only 60% of patients with low rehabilitation potential demonstrate the ability to transfer the mastered skills to everyday life. We suppose that there are two major obstacles to it: the learned helplessness manifestations and not constructive or stagnant human life-world stability.

References

- Deci, E.L., Ryan, R.M. (2000). The “What” and “Why” of goal pursuits: human needs and the self-determination of behavior. *Psychological Inquiry*, Vol. 11, 4, 227-268.
- Enderby, P., Pandyan, A., Bowen, A., Hearnden, D., Ashburn, A., Conroy, P., Logan, P., Thompson, C., Winter, J. (2017). Accessing Rehabilitation after Stroke - A Guessing Game? *Disability Rehabilitation*, 39 (7), 709-713. doi: 10.3109/09638288.2016.1160448.
- Haselbach, D., Renggli, A., Carda, S., Croquelois, A. (2014). Determinants of neurological functional recovery potential after stroke in young adults. *Cerebrovasc Dis Extra*, 4, 77–83. doi: 10.1159/000360218.
- Loginova, I.O. (2012). Research of stability of the vital world of the person: technique and psychometric characteristics. *Psychological Science and Education*, 3, 18-28.
- Petryaeva, O.V., Shnayder, N.A., Artyukhov, I.P., Saponova, M.R., Loginova, I.O. (2017). The role of orthotic service in modern rehabilitation of patients with Charcot-Marie-Tooth disease. *Journal of Biosciences and Medicines*, 6, 23-34.
- Sivukha, T.A., Enikeeva, A.A. (1997). Methodical approaches to determining the rehabilitation of the brain vascular pathology. *Medico-social examination and rehabilitation of disabled people*, 21, 63-69.
- Volkova, O.V. (2016). Prospects of a complex research model application in designing the program aimed to diagnostics, correction and prevention of the learned helplessness in ontogenesis. *Siberian psychological journal*, 61, 47-63.