MENTAL HEALTH DIFFICULTIES AND RELATED PERSONAL FACTORS (ACCORDING TO PEOPLE DURING COVID-19 PANDEMIC)

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Abstract

This paper aims to scrutinize people's mental health issues (stress, anxiety, and depression) in the conditions of the Coronavirus pandemic and personal factors linked to them: unique traits, maladaptive cognitive schemes, and defense mechanisms. Through an online survey, we gathered information from 343 individuals aged 16 through 73. We used self-report questionnaires including DASS-21, Hexaco, maladaptive cognitive schemes, and defense mechanisms. Statistical analysis of the data revealed that women, young people, single individuals, and people with low income and poor education level report to have experienced more psychological distress during the pandemic. Also, the study results show that mental health difficulties are positively related to maladaptive cognitive schemes, immature and neurotic defense mechanisms, and Emotionality while negatively correlating with mature defense mechanisms and personal traits such as - Extraversion, Agreeableness, Conscientiousness, and Honesty-Humility. According to the study, there is a positive correlation between maladaptive cognitive schemas, neurotic and immature defense mechanisms, and Emotionality. Mediation analysis has shown that the personal trait "emotionality" partly mediates the link between maladaptive schemes and mental health difficulties.

Keywords: Maladaptive, schemas, defense, mental, traits.

1. Introduction

Over the past few years, epidemics and pandemics have become a significant concern for physical health and mental well-being (Harvard Global Health Institute, 2018) (Bloom & Cadarette, 2019). WHO declared the COVID-19 pandemic on March 11, 2020, quickly spreading to 114 countries. Social isolation became necessary from the beginning to prevent the spread of the virus. As a result of the current circumstances, there has been a notable rise in psychological stress caused by factors such as personal identification and economic downturn. The Georgian government documented the initial COVID-19 case on February 26. As a result of the pandemic protocols, there has been a significant transformation in the living conditions of the populace due to the requirement for physical distancing. The government has enforced a state of emergency that included a curfew, shutting down non-essential businesses, and other measures to prevent the spread of the virus.

However, only a specific part of people was affected by psychological difficulties, including stress, anxiety, and depression, during the pandemic. It is essential to understand which personal factors contribute to mental health issues. These factors include personality traits, which are stable, consistent, and enduring internal characteristics connected to behaviors, attitudes, and habits. Apart from them, the role of maladaptive cognitive schemes and defense mechanisms in mental health issues is interesting. Maladaptive cognitive schemas are rigid cognitive structures formed in early life and containing maladaptive cognitive and emotional patterns (Young, Klosko, & Weishaar, 2006).

No research discusses the connection between personality traits, maladaptive cognitive schemes, defense mechanisms, and mental health difficulties. Integrating different theoretical models and psychological interventions can lead to better results and increased popularity of combined therapy. It helps us to utilize better the knowledge acquired in the field of psychology and to approach existing issues in a more eclectic manner.

The study aims to determine whether it is possible or not to predict mental health difficulties (stress, anxiety, and depression) based on personal traits, maladaptive cognitive schemas, and coping mechanisms (during the pandemic period). Additionally, studying the interactions between personality

traits, cognitive schemas, and coping mechanisms can provide a more comprehensive understanding of the situation.

2. Literature review

Individuals with different personality traits react differently to daily life stressors (including those related to the pandemic), resulting in varying levels of psychological distress. People with a high level of Emotionality exhibit high levels of anxiety (Mazza, 2020).

Maladaptive cognitive schemes play an essential role in the development of psychological distress. Maladaptive cognitive schemas are composed of beliefs, emotions, cognitions, and physical experiences and connect with the self and others. Schemes emerge in childhood and adolescence and develop throughout the lifespan (Young, Klosko, & Weishaar, 2003). Here are four main categories of maladaptive cognitive schemas: Disconnection & Rejection; Impaired Autonomy & Performance; Impaired Limits; Other Directedness; Over-vigilance & Inhibition. There is a significant correlation between dysfunctional schemes and psychological distress (anxiety and depression). Research shows a positive correlation between schemas and neuroticism (Shojaati, Kalantari, & Mulavi, 2019).

The defense mechanisms are "mechanisms that allow individuals to manage emotional conflict and react to external stressors" (American Psychiatric Association, 2013). These mechanisms protect individuals from situations that may not be manageable for their cognition, self, or ego during this stage (Vaillant G. E., 1993). It may be considered both a beneficial and therapeutic outcome, as well as a consequence of these mechanisms' type and frequency of use. Defense mechanisms play an essential role in coping with psychological distress. Mature defense mechanisms improve functioning (Vaillant G. E., 2000). Research conducted during the COVID-19 pandemic found a negative correlation between psychological distress and the level of defense mechanisms, particularly regarding stress, anxiety, and depression.

3. Objectives

In the survey, 113 males and 221 females participated. Individuals aged 16-73 were represented during the study, and 343 participated. The following categories are Age 16-18 years: 47 individuals; Age 19-29 years: 153 individuals; Age 30-44 years: 99 individuals Age 45-73 years: 44 individuals.

In light of the restrictions arising from the COVID-19 pandemic, research has moved online using the "crowdsourcing" principle. We provided selected participants with information about the study and the possibility of participation in it, as well as information about the confidentiality and anonymity of the research.

4. Methods

The HEXACO-PI-R (HEXACO Personality Inventory-Revised) questionnaire assesses personality traits. Kibeom Lee, Ph.D., and Michael C. Ashton, Ph created it. The questionnaire consists of 100 items, and responses are rated on a Likert scale ranging from 0 (strongly disagree) to 5 (strongly agree). It includes six broad domains (Honesty-Humility, Emotionality, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience), each further divided into four facets and an additional factor (Altruism) with 25 parts.

YSQ-SF3, a maladaptive cognitive schema questionnaire, was created by J. Young in 1990 and revised in 2003, with 90 items (J. Young., 1990, 2003). The questionnaire is on a Likert scale from 1 (not at all) to 6 (totally), with five scales and 19 sub-scales.

The Questionnaire on Defense Mechanisms, DSQ-40, is a 40-item questionnaire created by Andrews, Singh, and Bond in 1993, which is a modified version of the original Defense Style Questionnaire (DSQ; Bond, Gardner, & Sigal, 1983). The instrument consists of three scales (mature, neurotic, and immature defense mechanisms) and includes 20 subscales. The items are scored on a Likert scale ranging from 1 (strongly disagree) to 9 (strongly agree) (not applicable).

5. Results

The questionnaire related to mental health difficulty indicated high internal consistency (α=.918) and maladaptive cognitive schemes (α=.964). Defense mechanisms have an above-average internal consistency (α=.828). In Hexaco, six main personality traits (factors)- Honesty-Humility (α=.810),

Emotionality (α=.782), extraversion (α=.802), Agreeableness (versus Anger) (α=.759), Conscientiousness (α=.712), Openness to Experience (α=.779).

Mental health difficulties correlate statistically significantly with the following indicators: positively associated with emotional instability (r=.444 p=.000), while negatively correlated with extraversion (r=-.415 p=.000) on average.

The relationship between maladaptive cognitive schemas and the severity of psychological distress (stress, anxiety, and depression)- As we found at the beginning of the study, the severity of psychological distress significantly and positively correlates with maladaptive cognitive schemas (r=.653 p=.000), and its scales: disconnection and rejection (r=.653 p=.000), impaired Autonomy (r=.626 p=.000), while the average positive correlation with the following rankings was observed: over-vigilance (r=.475 p=.000), orientation toward others (r=.488 p=.000), and self-blame (r=.499 p=.000). Regarding specific subscales, a high positive correlation was found with social isolation (r=.549 p=.000), helplessness (r=.547 p=.000), instability (r=.552 p=.000).

The relationship between the defense mechanisms and mental health difficulties (stress, anxiety, and depression)- Mental health difficulties are positively and significantly correlated with immature defense mechanisms (r=.546, p=.000) and negatively and significantly associated with neurotic defense mechanisms (r=.172, p=.001). The statistical relationships between them are essential. Specifically, regarding the sub-scales, a significant positive correlation was found between mental health difficulties and projection (r=.549, p=.000), as well as autistic fantasy (r=.506, p=.000)

To determine differences between groups based on gender, we used the T-test for independent samples. Based on the average scores, females have significantly higher levels of protection against infections (M=7.3, SD=5.0) compared to males (M=6.2, SD=4.3) (t (311.210)=9.104, p=.003). However, the effect size is small at .03, indicating that gender differences explain only 3% of the variance.

Based on the average indicators of mental health problems (F(3,339)= 11.676 p=.000), statistically significant differences are among different age groups. Adolescents aged 16-18 showed higher levels of psychological distress (M=31.2, SD= 13.4) compared to individuals aged 19-29 (M=23.8, SD=12.5), 30-44 (M=19.1, SD=11.4), and 45-73 (M=20.0, SD=10.3). Moreover, the individuals aged 19-29 (M=23.8, SD=12.5) showed higher mental health problems than those aged 30-44 (M=19.1, SD=11.4). The significant effect size (eta squared=.09) indicates that age differences can explain 9% of the variance in mental health problems.

Regression analysis is an approach used to determine how much change in dependent variables can be attributed to changes in independent variables to predict the most significant predictors of psychological health.

A model combining maladaptive cognitive scheme combinations revealed 45.2% (R2=.452, F (5,297)= 49.067, p=.000) of the variance in severity of psychological distress. Two out of the five variables included in the model statistically contributed to the significant predictors, namely avoidance and rejection (β=.345, p=.000) and encapsulated self (β=.286, p=.000). Individual contributions of avoidance and rejection and encapsulated self to the variance were 4% and 3%, respectively.

The individual contribution of maladaptive cognitive schemas is 7%, emotions - 6%, unhelpful coping mechanisms - 4%, and extraversion - 0.8%. The model of the combination of personal factors (maladaptive cognitive schemes, defense mechanisms, extraversion, and Emotionality) explains 53.9% of the variance of mental health levels (R2=.539, F(4, 298)= 87.275, p=.000). All variables included in the model are statistically significant. Based on the beta coefficient, the strongest predictor of mental health levels is maladaptive cognitive schemes (β=.383, p=.000), followed by defense mechanisms (β=.262, p=.000) and Emotionality (β=.261, p=.000), while extraversion has the lowest predictive value (β =-.104, p=.017).

To study the medial effect of maladaptive cognitive schemes and their connection with the severity of psychopathology, we used the PROCESS macro by Andrew F. Hayes. According to the results of the medical analysis, maladaptive cognitive schemes are a significant predictor of the severity of psychopathology through the mediator of emotion, with a statistically significant coefficient of b = .23, t(301) = 5.0, p < .001 (F(1, 301) = 24.73, p < .001, R2 = .08). The predictor was maladaptive cognitive schemes, the mediator was emotion, and the dependent variable was the severity of mental health difficulty.

The second model, which includes a unique predictor variable for the mediator and the moderator, is statistically significant in predicting the variance in psychological well-being (F(2, 300)=143.01, P<.001, R2=.49). Maladaptive cognitive schemes are not significant predictors of psychological well-being (b=10.0, t(301)=13.5, p<.001). In contrast, emotion is a significant predictor (b=5.2, t(301)=6.0, p<.001) of psychological well-being. Therefore, emotion partially mediates the relationship between maladaptive cognitive schemes and psychological well-being with an indirect effect

of IE=.07, 95% CI [.04, 1.1]. The unique predictive power of maladaptive cognitive schemes diminishes considerably when controlling for the mediator.

6. Discussion

Regarding the severity of mental illness, the intensity of stress is directly and negatively related to good health, well-being, and self-esteem. A positive correlation (r=.444 p=.000) was between psychological distress and emotions, and a negative correlation (r=-.415 p=.000) was between emotional difficulties and extraversion. It is because extroverts are more stable to stress and need stimulation (Eysenck & Eysenck, 1991).

Wealth, social status, and resources are essential to people. Therefore, they may be susceptible to constant anxiety and stress related to these issues. As indicated, low income and education levels are associated with stress, depression, and overall psychological distress.

There is a significant correlation between mental health difficulties, immature (r=.546 p=.000), and neurotic (r=.172 p=.001) defense mechanisms. Immature and neurotic defense mechanisms are less complex than mature ones. Individuals are less likely to recognize them when used. Their psychological-social stressors, ideas, and results logically lead to psychological distress. The projection (r=.549 p=.000) and autistic fantasy (r=.506 p=.000) are significantly related to the severity of psychological well-being, including depression. The psychodynamic approach explains the activation of the defense mechanism of projection during the depression (Bond, Gardner, Christian, & Sigal, 1983). Regarding the mechanism of autistic fantasy defense, during times of depression, individuals with low energy and anhedonia tend to withdraw and experience less motivation and interest in real life and therefore rely on their fantasies more. It is logical to assume they may turn to fantasies instead of real-life changes.

The study found a significant positive correlation (r=.653, p=.000) between maladaptive cognitive schemas and the severity of psychological distress (anxiety, stress, depression) in the general population, which supports previous research findings (Noei, L., & Ashouri, 2010). Maladaptive cognitive schemas are negative patterns, including negative views about oneself and the world.

Medial analysis has determined that emotional regulation plays a partially mediated role among maladaptive cognitive schemas and the severity of psychological distress. This significant result suggests that changes in maladaptive cognitive schemas as a result of schema therapy may lead to a reduction in psychological distress and an improvement in an individual's psychological well-being.

7. Conclusions

The study results show that the severity of mental health difficulties is significantly related to maladaptive cognitive schemes, immature and neurotic defense mechanisms, and Emotionality. The personality trait Emotionality partially contributes to the development of maladaptive schemas, which can exacerbate psychological health issues.

8. Limits

We conducted the study online, and the questions used in the survey may increase the chance that participants should have reported truthfully, which could result in inaccurate or biased results.

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