



Assessment of the psychoemotional sphere in students during the coronavirus pandemic

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Abstract- The article presents the results of a study on the assessment of the psycho-emotional sphere of the students during the coronavirus pandemic. The following psychodiagnostic techniques were used in the study: the COPE scale in Russian adaptation by E.I. Rasskazova, T.O. Gordeeva and E.N. Aspen; diagnosis of the level of neuroticization by L.A. Wasserman. The author's questionnaire, "Attitude of Students to the Coronavirus Pandemic (COVID-19)," was also used in the study. Statistical processing of the data was performed using the Spearman correlation coefficient, the SPSS-21.0 application package, and Microsoft Office Excel 2010. It was found that medical students use constructive coping strategies during the pandemic period. Positive correlations between the level of neuroticism in students, the state of anxiety and the coping strategy "Focusing on emotions and their ventilation" were revealed. Changes in the psychoemotional state of students during the coronavirus pandemic were shown.

Keywords: Students of a medical university, neuroticization, covid-19, pandemic, coronavirus infection, psycho-emotional sphere, overcoming stress, coping strategies

I. INTRODUCTION

The spread of the COVID-19 virus infection began in the Chinese city of Wuhan, in which an outbreak of this dangerous disease occurred in 2019. By July 10, 2020, 11,555,368 cases of coronavirus infection have been confirmed with 544,031 fatal outcomes. In particular, in the Astrakhan region more than 6 thousand cases of infection with COVID-19 and 35 deaths. COVID 19 is an infectious disease caused by a new type of coronavirus that humans have allegedly contracted from animals. In this difficult period, the personality undergoes a restructuring of the psychoemotional sphere, adaptation to new conditions, and the development of new coping strategies (Ivanov and Garanyan, 2010; Kukso and Kukso, 2018; Gordeeva, 2010). Under coping strategies we mean behavioral strategies that are characterized by flexibility and focus (Isaeva, 2009; Olennikova, 2010). A pandemic is a stress factor, a person is in a confined space. It was found that during a pandemic, a person increases the level of anxiety, affective changes, as well as the risk of depressive and neurotic states (Kotova, 2020; Kryukova, 2004). Neurotic disorders (F40-F48 according to ICD-10) arise in response to the action of stress and other psychogenic factors that cause mental stress, as well as endocrine-autonomic disorders (Vodopyanova, 2009). Students are also a risk group, as they had an emergency transition to a distance learning form (Romanov, 2020; Sokolov, 2012). Hence, there is an urgent need to study the psychoemotional state of students, since there are currently no research on the study of the emotional sphere during the coronavirus pandemic.

Objectives

The purpose of the study is to assess the psycho-emotional sphere of students during the coronavirus pandemic.

II. MATERIALS AND METHODS

An experimental study was conducted from May to June 2020 at the Astrakhan State Medical University. The students of the medical university in the amount of 70 of the 1st, 3rd, 4th, 5th courses of study on "General Medicine", "Pediatrics", "Dentistry", "Pharmacy" are presented in the sample. The average age is 21.3 years. The following psychodiagnostic techniques are used in the research: the COPE scale in the

growth, adaptation E.I. Rasskazova, T.O. Gordeeva and E.N. Aspen, including 15 scales, respectively; each of them corresponds to a separate, independent type of coping. COPE scales provide an opportunity to diagnose a wide range of productive and unproductive coping strategies; diagnostic technique for the level of neurotization L.A. Wasserman, which consists in determining high emotional excitability, causing various negative experiences and is reflected in anxiety, tension, anxiety, confusion, irritability, irritability. The author's questionnaire, "Attitude of Students to the Coronavirus Pandemic (COVID-19)", was also used in the study. The results of an experimental study are represented by a representative sample, as well as a comparative selection of standardized techniques. Statistical data processing was performed using the Spearman correlation coefficient, SPSS-21.0 application package, and Microsoft Office Excel 2010.

III. RESULTS

According to the results of the "Attitude of students to the coronavirus infection pandemic (COVID-19)" questionnaire, two categories of students with psychological problems during the pandemic were identified. The first category included 19 students (27.1%) who rated their condition during quarantine as alarming. The constant state of anxiety during the quarantine period was felt by respondents who rated their anxiety level above 7 points on a 10-point scale. The second category included 18 respondents (25.7%) who mentioned difficulties in adapting to distance learning in quarantine. The level of anxiety in this group is average - 4-6 points on a 10 point scale, the presence of constant anxiety is not noted. 26 students (37.2%) considered self-isolation as an opportunity for self-development, 24 people (34.4%) as a time of hard study, 10 people (14.2%) as another 10 students (14.2%) as a time of restoration of strength and energy %) reacted to quarantine - as an excruciating pastime. During the study period 10 respondents (14.2%) had a disease in their family environment.

The main stress factor during the quarantine period of 36 students (51.4%) I consider the duration of quarantine, 20 people (28.6%) - fear of infection and 14 respondents (20%) - inadequate information.

In the author's questionnaire, we included questions that reveal the presence of critical thinking and psychological defenses regarding information about COVID-19. Respondents could choose one or more answer options for these items. The presence of anxiety due to the uncertain timing of quarantine completion and the timing of the development of effective treatment methods for COVID-19 was noted by 47 students (67.1%). The unpredictable development of the situation and the lack of control contribute to anxiety during the quarantine period.

26 students (37.1%) are concerned about the possibility of getting sick, and they take all precautions. Respondents from this group choose the most productive behavioral strategy in a pandemic. The economic crisis after the end of the pandemic is alarming in 21 respondents (30.0%). The fact that the danger of COVID-19 is exaggerated is considered by 17 people (24.2%). These answers and the following fall into the category of dysfunctional thinking during a pandemic. This type of thinking is closely associated with risky behavior, not compliance with anti-epidemic measures. The situation with a pandemic is considered a conspiracy of world elites by 14 people (20%), they are characterized by manifestations of conspiracy theological type of thinking, which aggravates in people during times of world crisis. Low chances of getting COVID-19 due to the fact that they are young and healthy are noted by 11 students (15.7%). These respondents are characterized by the creation of the illusion of their own invulnerability, the denial of the possibility of getting sick. The fact that a positive attitude and lack of concentration on negative thoughts about COVID-19 will protect them from the disease, 10 people (14.2%) note, showing a magical type of thinking.

They are much worried that the authorities indicate what to do and deprive them of free movement because of COVID-19 - 8 people (11.2%). These respondents show excessive defending of their borders in a pandemic situation. The same number - 8 people (11.2%) trust those Internet sources that state that the situation with COVID-19 is artificially created. In this case, we are faced with a decrease in critical thinking, denial of the disease, and inability to identify reliable and unreliable sources of information.

Figure 1 presents the results of the diagnosis of neurotization according to the method of Wasserman in the students of a medical university. It was found that 34 students (48.5%) had a low level of neurotization. This result indicates emotional stability, a positive emotional background of experiencing. The average level of neurotization was in 21 students (30.0%). A clearly expressed level of neurotization was in 8 people (11.7%). Based on the results, it was found that a high neurotic rate was observed in 7 people (10.0%), which indicates a pronounced emotional excitability, which is expressed in negative experiences, such as anxiety, tension and irritability, which probably accompanied by increased fatigue, decreased mood, apathy.

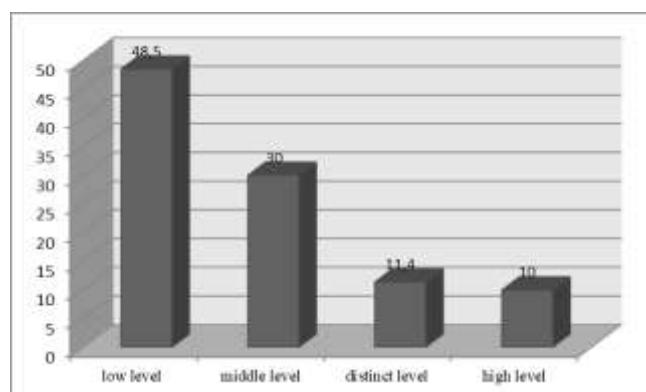


FIGURE 1. The results of the diagnosis of neurotization according to the method of Wasserman in students of a medical university

The results of studies of coping strategies in medical school students on the COPE scale during the coronavirus pandemic showed that the dominant coping strategies are Active Co-Ownership (13.5%), Co-Planning (12.9%) and Positive Redefinition and personal growth (12.9%). It should be noted that these copings are productive and are characterized by an average frequency of use. Coping “Active coping” among students, however, indicates that they have a source of stress, to which students direct efforts to eliminate the stressor and overcome it. “Positive redefinition and personal growth” shows that students in a pandemic and self-isolation period try to find positive aspects in this situation, as well as opportunities for self-development and personal growth. Active use by students of such coping as “Planning for coping” indicates that students define self-isolation and distance learning as a stressful situation, while they are actively looking for new alternative ways of coping with this situation and ways to solve it.

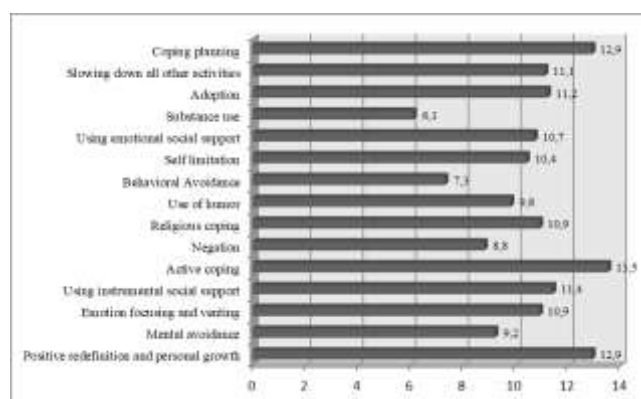


FIGURE 2. The results of the diagnosis of coping strategies in medical students

These priority copying by students of a medical university indicate that students are trying to actively cope with the “unusual” and stressful situation for them, using constructive copings.

The least preferred among students are coping strategies that are less productive, such as: “Using instrumental social support” (11.4%), “Acceptance” (11.2%) and “Slowing down all other activities” (11.1%). This means that students tend to ignore other types of activities, narrowing their own field of respondents.

To identify the relationship between the level of students’ neuroticism during the quarantine period with indicators of the coping strategy and subjective assessments of anxiety, a correlation analysis was used. The correlation analysis was performed with the calculation of the Spearman rank correlation coefficient, the correlation results are presented in Table 1.

Table 1. Correlation analysis results between neurotization and coping strategies and anxiety

Indicators	Anxiety	"Positive redefinition and personal growth"	"Active coping"	"Planning Conquest"	"Focusing on emotions and their ventilated"
Correlation coefficient, r	0.586	-0.465	-0.343	-0.351	0.372
Significance level, p	0.001	0.001	0.01	0.01	0.01

Positive correlations were revealed between the level of neuroticism in students, the state of anxiety ($r = 0.586$) and the copying strategy "Focusing on emotions and their ventilation" ($r = 0.372$). The higher the level of neuroticism in students, the higher their assessment of their own anxiety, and they are more likely to have a coping strategy called "Focusing on emotions and their ventilation". These respondents tend to concentrate on unpleasant emotions and actively express them. Negative correlation relationships between the level of neurotization and such coping strategies as "Positive redefinition and personal growth" ($r = -0.465$), "Active coping" ($r = -0.343$) and "Planning for coping" ($r = -0.351$) were revealed. The lower the level of neuroticism in students, the more they tend to rethink the situation in a positive way, develop strategies for behavior in a difficult pandemic situation and take active steps to overcome stress.

IV. CONCLUSIONS

Thus, it should be noted that a comprehensive study of the psychoemotional sphere of medical university students during the coronavirus pandemic, including the determination of the level of neurotization and coping strategies, will help to manage the mental state associated with the reduction of unpleasant emotional experience during the pandemic and the distance learning format.

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