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STUDYING THE RELATIONSHIP BETWEEN THE MENTAL STATES OF STUDENTS ON THE EVE OF THE SESSION AND THE FEELING OF LONELINESS DURING THE PERIOD OF SELF-ISOLATION

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Abstract
The results of an ascertaining experiment conducted among students during the period of restrictive measures in May-June 2020 are presented, the sample consisted of 55 students, age - 19-22 years. The aim of the study was to study the existence of a connection between the mental states of students and forced restrictive measures, including those related to studies, to assess the potential risk for the psychological well-being of students. As a hypothesis, it was suggested that the situation of forced self-isolation is an additional factor causing a decrease in the mental activity of a person, which contributes to the manifestation of neurotic reactions and provokes a feeling of loneliness. The study was conducted online, the control group was not formed. As a result of statistical data processing using the r-Pearson correlation coefficient, a direct negative relationship was revealed between the experience of loneliness (forced self-isolation) and a decrease in mental activation and interest of students, as well as a direct positive relationship with states of anxiety, frustration and obsessive states on the eve of the session. The research results can be used to develop programs for psycho-correction and psychological and pedagogical support of students who are forced to be in restrictive conditions due to prolonged illness, special health opportunities, extreme situations and, finally, the transition to distance education.

Key words: *mental states, students, examination session, self-isolation, restrictive measures.*

Introduction

The problem of students' mental states in the learning process is of great theoretical and practical importance in the context of maintaining mental and psychological health. Increasingly, researchers are paying attention not only to the academic performance of students, but also to the state of their mental health. The results of many studies confirm the fact that mental states largely determine the success of a subject's activity. Considering the educational and professional activity of students, it is necessary to highlight its very important component - the examination session [1].

The period of the session is a rather strong factor in the manifestation of negative mental states in students, leads to an increase in the emotional load [2, p. 28-43]. The exam procedure is a very strong stress factor, in which the general emotional background takes on a negative connotation [3]. As indicated by Yu.V. Shcherbatykh indicates that if the exposure to the stressor is prolonged, the person becomes more anxious and may even experience depression [4].

The problem of studying the mental states of students on the eve of the session acquires particular relevance in the conditions of self-isolation, announced as a result of the spread of coronavirus infection COVID-19, for the development of programs for psychoprophylaxis, psychocorrection and psychological and pedagogical support of students who are forced to be in restrictive conditions due to a prolonged illness, special health opportunities, extreme situations and, finally, the transition to distance learning.

Self-isolation is not only a rupture of habitual social ties, but also a situation of uncertainty. Such alienation negatively affects the mental health of a person. It was revealed that various negative mental states are more pronounced in young people, including students [5].

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The period of preparation and waiting for the session is a typical situation of uncertainty for students, because they don't know if the outcome of the session will be favorable. Of course, students want to get good and excellent grades, which will provide them with a scholarship, but at the same time, many are prone to doubt, feelings of uncertainty, and growing anxiety.

Methods

In order to identify the peculiarities of the mental states of students in the conditions of self-isolation on the eve of the session and to predict the risks and potential difficulties of adapting students to educational situations characterized by a high degree of uncertainty, we conducted an ascertaining experiment among students of 2-3 courses of TSPU. L.N. Tolstoy. The sample consisted of 55 students (age - 19-22 years) studying in the direction of training "Psychological and pedagogical education." The study was conducted online from May to June 2020, during the test week and on the eve of the exam session, which were held remotely using information technology.

As the main task, we identified the identification of the presence of a connection between the mental states of students and forced restrictive measures, including those related to studies, the assessment of the potential risk for the psychological well-being of students. We assumed that the current situation of forced self-isolation is an additional factor causing a decrease in the mental activity of the individual, which contributes to the manifestation of neurotic reactions and provokes a feeling of loneliness.

Analysis of works on the study of the mental properties of a person determined the choice of diagnostic methods:

- assessment of mental activation, interest, emotional tone, tension and comfort (N.A. Kurgan, T.A. Nemchin);
- the scale of situational (reactive) anxiety (Ch.D. Spielberger, Yu.L. Khanin);
- test for self-assessment of mental states (according to G. Eysenck);
- scale of types of neurotic reaction (K.K. Yakhin, D.M. Mendelevich);
- scale of subjective feelings of loneliness (D. Russell, M. Ferguson).

Taking into account the peculiarities of the situation of self-isolation, the diagnostic examination was carried out on the website Psychological tests online https://psytests.org. The empirical data obtained were processed using Kendall's rank correlation coefficient and Pearson's linear correlation coefficient.

Results

Analysis of the results obtained by the method of N.A. Kurgan and T.A. Nemchina shows that the subjects have a decreased level of mental activation with a pronounced high tension (Table 1).

Table 1

The results of assessing mental activation, interest, emotional tone, tension and comfort

Mental state	Points	Degree of severity (%)	Level of severity
Mental activation	17	80,9	low
Interest	12	57,1	medium
Emotional tone	13	61,9	medium
Tension	16	76,1	high
Comfort	11	52,3	medium

We explain the decrease in the level of mental activity by the influence of an external stress factor - the uncertainty of the situation, which is understood as critical, on the eve of the session. Many students, describing their condition, noted a lack of enthusiasm and desire to engage in educational activities, pointed to frequent mood changes, while emphasizing high internal tension and excitement.

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According to the Spielberger-Khanin test, 59% of students showed a high level of personal anxiety (the severity of the feature - 52.7 points), and the level of situational anxiety was higher than the norm in 62% (the severity of the feature - 63.2 points).

E.G. Petrova notes that personal anxiety indicates a person's tendency to perceive the current situation as threatening and dangerous for his self-esteem [6; 7]. A.M. Prikhozhan, referring to the results of the studies conducted after the Chernobyl disaster, says that human anxiety is directly related to information uncertainty and inconsistency of information, recommendations, etc. [8, p. 69]. With regard to our research, it can be argued that the source of students' anxiety is not so much the approaching session as the uncertainty and ambiguity of the situation associated with the self-isolation regime.

In our study, anxiety correlates with tension (direct correlation r = 0.69) and mental activation (inverse correlation r = -0.54). A state of tension can be caused by a disturbance in interpersonal relationships.

An increased level of anxiety is also characteristic of situations associated with an attempt to predict events that contain the danger of frustration of an actualized need [9].

In our study, the level of frustration (according to the method of G. Eysenck) of the subjects is defined as high - the average group indicator is 16.7 points - and reveals a direct correlation with anxiety (r = 0.65).

To analyze neurotic manifestations, we used the scale of types of neurotic response (K.K. Yakhin, D.M. Mendelevich). On the whole, in the experimental sample, the manifestations of neurotic reaction are quite high: certain neurotic reactions were found in 29 students. The quantitative and percentage ratio of manifestations of neurotic reactions in the sample (in decreasing order) is presented in table. 2.

Table 2

Manifestations of types of neurotic response in the sample

Type of neurotic reaction	Number of cases	Number of cases,%
Obsessive-phobic disorders	16	29
Vegetative disorders	15	27
Asthenia	13	24
Neurotic depression	11	20
Alarm	9	16
Conversion disorders	7	13

The obsessive, anxious-phobic state of students is due to the emotional shock caused by the onset of the pandemic. Many students experience fatigue and apathy. A certain part of students is characterized by a decrease in motivation to learn.

Adaptive reactions of a neurotic type found in the sample are characterized by the presence of a pronounced affective component (fear), obsessive thoughts and actions (possibly aimed at compensating for fear); and also, the presence of somatic symptoms (weakness, sleep disturbances, etc.).

After analyzing the average group values for all the studied mental states, we took the arithmetic mean as a starting point, then the "raw" points were transferred to the "walls" and the Kendall rank correlation coefficient was calculated (Table 3).

Table 3

The relationship between the mental states of students based on Kendall's rank correlation coefficient

Mental states	*X*	Y	rank X, d_x	rank Y, d_y	P	Q
Mental activation	2	9	1	11	1	10

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Emotional tone	2	9	2	12	0	10
Interest	5	8	3	9	1	8
Tension	6	8	4	10	0	8
Anxiety	6	7	5	7	1	6
Comfort	6	7	6	8	0	6
Frustration	7	6	7	4	2	3
Obsessive-phobic disorders	7	6	8	5	1	3
Vegetative disorders	8	6	9	6	0	3
Asthenia	8	5	10	3	0	2
Neurotic depression	9	2	11	1	1	0
Conversion disorders	9	2	12	2	0	0

Note. The following designations are adopted in the table: X – a sign of ranks forming a direct order; Y – a sign of the ranks forming the reverse order; P – the number of positive, and Q – negative units, assigned to pairs when comparing their ranks for both signs.

At a significance level of $\alpha < 0.05$, there is a significant rank correlation between qualitative signs (mental states) ($T = 0.736$).

Self-isolation mode involves breaking the usual social ties, a secluded and detached way of life, in which a person experiences a feeling of loneliness. If a person experiences loneliness as a negative feeling, then he is characterized by anxiety, uncertainty, a feeling of helplessness, weakness. In the period of forced loneliness, there is concern about their mental state [10]. To identify the relationship between mental states and the experience of loneliness, as social isolation, we applied the scale of subjective feelings of loneliness (D. Russell, M. Ferguson).

The indicators of feeling of loneliness correspond to the average level and are in the range of 20-40 points (the average group indicator is 31.7 points). The results obtained indicate that students, being in self-isolation, do not feel a sense of loneliness. This can be explained by both age characteristics and the ability to maintain contacts through social networks. Nevertheless, we revealed correlations between the level of subjective experience of loneliness and individual mental states of students (Table 4).

Table 4

Correlation relationships between the level of subjective experience of loneliness and mental states according to the r-Pearson criterion

(level of statistical significance p <0.05)

	Mental states				
	Anxiety	Frustration	Psychic activation	Interest	Obsessive-phobic disorders
The level of subjective experience of loneliness	0,46	0,50	-0,61	-0,52	0,50

As a result of the correlation analysis, it can be concluded that the experience of loneliness (forced self-isolation) causes a decrease in mental activation and interest of students, while increasing the state of anxiety, frustration and obsessive states on the eve of the session.

Conclusion

The study made it possible to reveal the presence of a connection between forced restrictive measures and the mental states of students on the eve of the session. The period of waiting and preparation for the session, when students' anxiety reaches their highest point, the transition to a regime of self-isolation, uncertainty of conditions, changing habits and breaking social contacts seriously affect mental health.

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The results of the study and their analysis can be used in the study of the psychological characteristics of the impact of forced self-isolation on the personality, in improving the methods of regulation of mental states of university students, in the practical work of educational psychologists in organizing psychological and pedagogical support not only for students, but also for students, who are forced to be in restrictive conditions due to prolonged illness or special health opportunities.

The research carried out does not exhaust all aspects of the problem, but significantly complements the sections of the study of mental states and opens up prospects for further research of this problem in educational psychology.

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