

SECTION VII. BIOLOGY

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CHARACTERISTICS OF ANXIETY IN THE CONDITIONS OF STRENUOUS ACTIVITY

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UKRAINE

Introduction. In our time, a man is the main element of productive forces and social relations. The rapid acceleration of scientific and technological progress requires increased work efficiency, and hence the activation of the human factor. At the same time, there is no special progress in the study and real consideration of psychological qualities of personality, including anxiety, physiological properties to improve working conditions, prevent accidents, reduce stressors and optimize professional performance.

Anxiety is a person's persistent tendency to worry. The constant feeling of anxiety, as a result of constant anticipation of troubles, is reflected in the mechanisms of auto regulation, adaptive reactivity and manifested by certain behaviors. High level of anxiety creates conditions for depletion of psychophysiological resources, reduces efficiency of activity and provokes somatic pathology. [1]. Current research indicates a steady increase in anxiety among young people. The main reasons are: accelerating the rhythm of life, reassessment of priorities and values, environmental and social aspects of life. The sad consequence is an increase in cases of the development of psychopathy, depression and deterioration of the gene pool [2]. Today, a comprehensive study of the characteristics of anxiety, determining its prognostic criteria, identifying its applied value and the creation of corrective techniques do not lose urgency [3].

The purpose of the study: to determine the characteristics of anxiety during strenuous human activity under conditions of high motivation.

Research methods. The study involved 89 male students aged 18-25 years of biological and psychological specialties. Initially, the level of personal (PA) and reactive (RA) anxiety was determined according to the method of Ch.D. Spielberg (adapted version by Y.L. Khanin) [2]. Subsequently, the subject was offered to perform a test on the computer system "Diagnost-1M" "reaction to a moving object" (RMO) according to the method of M.V. Makarenko [4]. To do this, it was necessary to stop the graphic object at the specified location as accurately as possible on a computer monitor. The graphic object was moved with a uniform speed. The beginning of the movement of the object took place according to the program settings, the interval between individual starts varied within 0.5-2.5 s. The number of tests was 30 launches in a series, which there were three of them. The accuracy of the task was taken into account. The smaller the sum of all deviations and the mean value of the reactions (in ms), the higher the accuracy was considered. To motivate of doing the task, the following propositions were offered: the highest

accuracy of reaction to a moving object corresponded to obtaining the highest score of the intermediate test discipline. The experimental material was processed by the method of variation statistics according to the Microsoft Excel - 2010 software package.

Research results. According to the results of reactions to a moving object, the subjects were divided into three groups. The 1st group (N = 19 men) included people with the highest and high accuracy of the task performance. The second group (N = 48) consisted of subjects with an average level of accuracy of reaction to a moving object. The 3rd group (N = 22) included subjects with low levels of sensorimotor reactivity and below-average response accuracy. It was found that RA in the subjects of the 3rd group was the highest compared to the other two groups ($p < 0.05-0.01$), (Table 1). Probably, the obtained results indicated the existence of insufficient mental autoregulation in these individuals. In addition, the level of PA in the subjects of the 3rd group was also the highest, although not reliable ($p > 0.05$). Also, a high level of PA may indicate a trend of the development of anxiety in the future.

Table 1

Psychophysiological indicators of the examined groups

Indicators	1st group	2nd group	3rd group
Personal anxiety (c.u.)	29.6	32.4	33.7
Reactive anxiety (c.u.)	36.8	43.2*	57.6**#
Reaction to a moving object (ms)	15.8	27.9*	38.8**#

* - reliability of differences $p < 0,05$, ** - $p < 0,01$ relative to the 1st group; # - the reliability of differences $p < 0.05$ relative to the 2nd group [received by the author].

It is likely that high RA in the people of the 3rd group, associated with high arousal, reduced the effectiveness of the test performance and contributed to low RMO [2]. Reliable differences between RA indicators were found in the examined 2nd and 3rd groups in favor of less anxiety and better adaptive properties in the 2nd group ($p < 0.05$).

So, the most anxious are students with low sensorimotor reactivity to a moving object. In conditions of emotional stress, such individuals are not able to ensure the unmistakable task performance, are characterized with lability of mental processes and low stress resistance in conditions of strenuous activity.

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