

Adjustment of youth to military and professional activity in extreme conditions of Arctic region

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Abstract – The success of adaptation to service in military units places high demands on professional-applied physical and psychological training of the young generation. Three levels of adaptation to military units in the extreme conditions of the Arctic region are proposed.

Keywords – adaptation, youth, military and professional activity, extreme conditions of Arctic region.

I. INTRODUCTION

The Arctic vector of development of the state is positioned as one of the priorities. The government has adopted a state program for the socio-economic development of the Arctic zone. The relevance of ensuring the country's national security in the Arctic region is increasing. Expanding international cooperation in the sub-arctic region is an objective necessity. All this testifies to the specifics of preparing young people for military professional activities in the extreme conditions of the Arctic region [1].

Numerous studies of the problem of adaptation of servicemen of the Armed Forces of the Russian Federation in recent years have acquired relevance in connection with the further development of the process of complicating military equipment, increasing neuropsychic and physical stress, reducing the service life of youth. These changes in the organization of service in military units, in turn, largely require a reduction in the adaptation period of young people in military teams.

Physical training is one of the main subjects of combat training, an important and integral part of military training and education of personnel, an integral part and one of the significant directions of increasing the combat capability of the Russian Federation. The process of adaptation to new conditions is associated with a large physical and psychological stress on the body and, above all, on the central nervous system [2,3].

The complex effect of adaptation factors causes negative changes in the functional state of the body, a temporary

decrease in mental and physical performance, an increase in morbidity. If the period of adaptation of servicemen is delayed or runs too intense, then this circumstance has a negative impact on the success of young men's combat training, as well as the effectiveness of mastering military professional skills. In the general set of key provisions aimed at the successful adaptation of military personnel to military professional activities, the means and methods of physical and psychological preparation occupy an important place.

We assume that systematic exercises with the use of professional-applied physical training (PAPT) of servicemen will increase the psycho-physiological status and will help accelerate the adaptation processes of the body of young people to military-professional activities.

OBJECTIVE – verification of professional-applied physical conditioning and psycho-physiological status of students young people to military-professional activities in extreme conditions of the Arctic region.

II. RESEARCH TASKS:

1. Evaluation of professional-applied physical conditioning of young people of military age.
2. Determine the levels of energy-emission processes of students.
3. Compliance of professional-applied physical education and psycho-physiological potential of students of military professional activities.

To solve the research tasks, the following methods were used: motor testing: speed and speed-strength abilities and general endurance; psycho-physiological research: the level of Health Index, the levels Gas-discharge visualization Anxiety Index, indicators of energy-emission processes of students; mathematical statistical methods.

III. BACKGROUND:

The young students of 2-3 years of university, in the amount of 58 people (18-22 years) took part in the research Respondent selection condition: permanent residence in the Arctic region, a core group of health,

readiness to future military career. All respondents gave voluntary written consent for the research. Research was conducted during the university study process and consisted of two stages. At each stage, a comprehensive research was conducted: assessment of physical conditioning, assessment of the level of energy-emission processes of students.

IV. METHODS:

In research was used the scientific apparatus "Corona TV", which used a non-invasive method of gas discharge visualization of induced energy-emission processes, based on the Kirlian'effect [4]. The GDV-Stress Factor program images was used to extract quantitative information about the level of health and the level activation of psychological processes in the students.

V. RESEARCH RESULTS:

At the first stage in researching, background testing was carried out. Students were trained in the professional-applied physical conditioning program during the year at the university.

Assessment of the results of the research can preliminarily assess the physical condition of students of 2-3 courses, as well as consider the impact of a special program on their level of physical conditioning (Table 1.).

Table 1. Assessment of indexes of physical conditioning in students (n=58)

Indexes	1 stage	2 stage	growth rates,%
Running 100 m	13,32 ±0,25	11,72 ±0,23	12,7
Running 3000 m	807,66 ±10,96	817,68 ±11,19	-1,2
Crossbar exercise	5,31 ±0,14	6,19 ±0,15	15,1

When assessing the physical conditioning of students, it should be noted that at the first stage of the study, the indicators of the level of physical conditioning are ambiguous, indicating the influence of other criteria for physical education.

Thus, the assessment of average test results in the running 3000 m. higher than the average test scores than in the running 100 m., which makes it possible to assume that the general endurance of the young men is high enough.

Assessment of 2 stages of testing the results of physical training, it can be argued that the physical conditioning of respondents to increase growth rates besides running 3000 m. We guess that the program for professional-applied physical conditioning of university students contributes to the acceleration of adaptation processes to physical loads during the period of study.

In order the psychophysiological Assessment adequacy and effectiveness of the applied system of physical conditioning of students, we was used the method of gas-discharge visualization, which allowed to determine quantitative indicators of the level of gas-discharge visualization Health Index and adaptation levels gas-discharge visualization Anxiety Index (Fig. 1, 2).

To assessment of Gas-discharge visualization Health Index at the first and second stages differs slightly. The Health Index is an indicator individual human health. At the Optimal level - Health Index physiological systems function at the minimum tension of regulatory functions (Fig. 1).

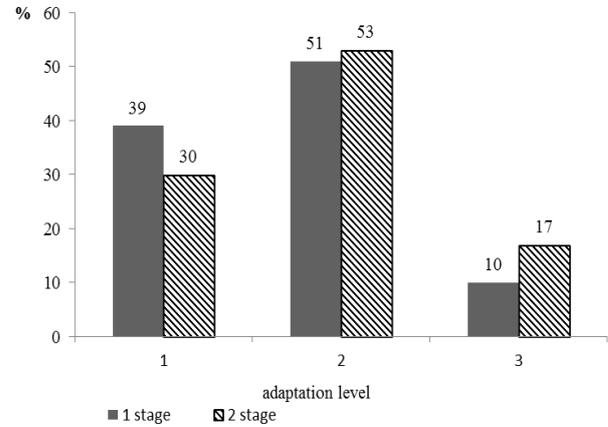


Fig.1 Gas-discharge visualization Health Index

Assessment of adaptation levels Gas-discharge visualization Anxiety Index has the considerable differences. Anxiety Index allows to reflect the psychophysiological status of the person by means of identification of factors of induced energy-emission processes of an organism (Fig. 2).

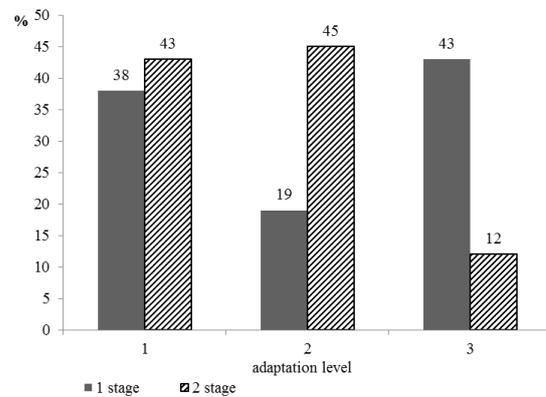


Fig.2 Adaptation levels Gas-discharge visualization Anxiety Index

Levels of adaptation are an integrated indicator of interaction of all indexes. The Health Index, the Anxiety Index and physical condition of students leads to fast and successful adaptation of military professional activities. The problem of adaptation to the extreme conditions of the Arctic region, we decided to establish three levels of adaptation:

1. Basic level - one of the mechanisms of socialization, which allows individuals to actively participate in various elements of the social environment through systematic training on the program of professional-applied physical conditioning of university students

2. Optimal level - considered as a process of organizing social interaction, contributing to the fullest realization of the psycho-physiological status to the conditions to military and professional activity.
3. Limiting level - the process of establishing higher rates of energy-emission processes in students, at which it is possible to go to the optimal level with a minimum level gas-discharge visualization Anxiety Index.

VI. CONCLUSIONS:

1. Physical condition of students is caused by insignificant influence of Health Index, but at the same time influences actively Anxiety Index. The young men differing in more high level physical condition quicker adapt to future military and professional activity
2. Rational application of tools and methods of professional-applied physical conditioning for students significantly accelerates process of social and psychological adaptation of young men.
3. Three levels of adaptation are determined: Basic level, Optimal level and Limiting level. Our scientific distribution of levels allow to allocate adaptation of young men to military service in extreme conditions of the Arctic region.

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