Methods for increasing the distress tolerance of students of public high schools for the extreme future professions

On the basis of factors of influence, optimization of means and methods of the professionally-applied psychophysical preparation of students, the methodology of increasing self-esteem and stress resistance of future specialists in the field of transport has been scientifically grounded.

It is known that the adaptation of man to the conditions of production, without special psychophysical and psycho-emotional preparation, can last from 1 year to 5-7 years. Therefore, educational institutions that teach professional activity (universities, colleges, etc.) to improve the quality of graduates, develop specific physical and mental qualities, physiological functions, transfer the relevant knowledge, abilities and skills necessary to effectively master specific professions. However, there is information that more than 80% of the representatives of modern professions and specialties are physically and psychologically unprepared for work in the real conditions of professions. (1).

Professions of servicemen, rescuers, pilots, air traffic controllers, navigators, operators of nuclear power plants, etc. put forward increased demands on the capabilities of the human body, which is related with the extreme conditions of their work and situations that threaten not only their lives, but also the lives of others.

It is known that the extreme situation (ES) is characterized by a radical or instantaneous change in circumstances and the emergence of related, especially unfavorable or threatening factors for human life, high problems and risks in implementing effective actions. Successful activity in such conditions is possible only if there are functional reserves of the human body that are mobilized in difficult situations and practical professional knowledge that must be timely implemented. One of the important qualities of an employee is the stress resistance of his psyche, which depends not only on the innate abilities, but also on the acquired knowledge, skills and behavior in the ES.

In the higher education institutions’ system of the Ministry of Defense, the Ministry of Internal Affairs and the Ministry of Emergencies, the methodology of the PPPF for the activities in the future profession has been formed and is successfully functioning. Physical and special training of cadets is organized and conducted in the following forms: training sessions (4 school hours per week - 45 or
90 minutes per class), daily morning physical exercises (30-50 minutes), combat training, mass sports training (3-4 training sessions per week for 2 hours each) and independent physical training. The success of such a program is ensured by the conditions of a permanent common location, the general mode of life, the conditions for compulsory completion of tasks under orders of commanders. (2).

The educational volume of physical training in public universities (2-4 hours per week or less), low level of motivation and lack of living conditions for organizing independent training, does not contribute to improving the functional capabilities of the body systems of students.

The next difficulty in the training of highly qualified specialists is the inconsistency between the level of neuropsychic firmness of applicants for the desired profession. When entering military schools, admission is possible to start learning only after a special medical commission that determines the state of health and the absence of contraindications to employment by this professional activity. In civilian universities, the professional suitability of applicants is not diagnosed and enrollment is carried out on the basis of the results of the general competitive selection.

Studies have established that 35-60% of students have a level of anxiety and fears at which disruptions and inadequate panic reactions in ES are likely to occur, (1, 4).

Thus, the orientation towards high requirements regarding the readiness of graduate students to work in extreme situations of the profession, in conditions of studying in public educational institutions, is almost impossible today. This problem has long awaited its solution.

At the beginning of the development of the developed methodology, the question was considered of the forms of influence of the teacher (subject) on the student (object). Of the three basic forms of governance (coercion, persuasion, manipulation), in practical application, two were justified - conviction and pedagogical manipulation. Because of the absence of the possibility to order in the public (liberal) education system, persuasion, through lecture information and conversations, made it possible to maximize the practical implementation of the didactic principles of learning - consciousness and activity, accessibility, application, expediency and practicality.

According to the proposed methodology, the main motivating support in preparing for activities in stressful situations was not the desire to fulfill credit standards, but the desire to fulfill non-standard tasks, which became a tradition for most students of the educational institution.

As is known, the development of moral and strong-willed qualities and neuropsychic stability (stress resistance) is possible only with the use of high, intensity and emotional intensity, training and competitive loads.

However, this becomes impossible if the functional capabilities of the people involved and the conditions for fulfilling the tasks (loads) that they offer are irrelevant. The main role in this situation is played by the pedagogical keynote for the task.

Thus, the primary factor in the effectiveness of the work was the principle of accessibility ("do no harm"), and secondary - to do the job with dignity. The pedagogical attitude can be briefly expressed as to fulfill the task without fanaticism, but in full. It is precisely the fulfillment of a complex task in full that maximizes the level of students' self-esteem and increases the reliability of their activities in the
extreme conditions of their profession (8). To increase the motivation and effectiveness of the work performed, the curriculum was based on the methodological achievements (systems) of outstanding teachers of the nineteenth century, Niels Buk (1880-1950) and Georges Eber (1885-1957), which are represented at the present stage as such systems as: crossfit, street vorkut, TRX (Suspension Treining) and army functional multidiscipline competition (Ukraine). (3.9).

During the research, the possibility of correcting the level of stress resistance of young people, through the execution of programs of competitive exercises from the system of combat sports, was also determined and evaluated. (4).

As a result of the running training of students with the proposed methodology and pedagogical keynote, the annual state certification of the level of physical fitness of the population of Ukraine showed the results: a distance of 3000 meters with an "excellent" score was overcome by 13.9% of students; "Good" - 22.8%; "Satisfactory" - 17.7%; "Unsatisfactory", but received credits - 16.2%; "Very bad" - 23.5%; 5.9% of students left the distance. Thus, 94.1% of participants in the state attestation fulfilled the task in full and established a personal level of self-assessment, having determined for themselves new boundaries of self-improvement.

On the basis of the application of the pedagogical system, by optimizing the individual technique of swimming and controlling the psychoemotional state of swimmers (the methodological accompaniment of students at the distance by the teacher in matters of the style of navigation, speed of advancement, accentuation or switching of attention from the techniques of swimming to breathing and vice versa) 71% of students successfully overcame distances of 1000 meters, with a small number of study hours for swimming training (16 hours in the semester, test standards in - 300 meters freestyle, without time).

This methodical campaign allowed to hold a mass event on the formation of university traditions: on a voluntary basis, once, take part in the swim for one nautical mile (1852 meters). The condition of participation was - overcoming the entire distance in the 25-meter pool freestyle; constant and confident progress without time; prohibition of contact with the walls and the bottom of the pool.

In the swims of 2017 and 2018, 22 and 25 students took part (29% and 33% of the lists of second-year students). In 2017, the distance was successfully overcome by 19 people (2 participants were removed from the race for violation of the conditions of the swim and one swimmer withdrew from the race of his own choice). In 2018, the distance was overcome by 25 people. All students were awarded with the Rector's charter and commemorative medal "The Conqueror of the Sea Mile". It should be noted that of the participants in the swims, only two students had significant training in swimming (water polo and scuba diving), while other participants got the benefit of overcoming long distances only in classes I-IV semester. Optimum speed of swimming for most swimmers allowed to overcome the distance in 56 - 77 minutes.

Conclusions. In the process of forming the necessary level of resistance of the future specialists working in extreme conditions of professional activity, it is necessary:

1. To raise students' self-esteem level through a consistent and successful performance of tasks with heavy physical and psycho-emotional loads;
2. Wide use of universality (diversity) and, most importantly, modernity and attractiveness of means and methods of physical education;

3. The main method of managing a student in the course of classes is to use persuasion and pedagogical manipulation with the active use of deserved verbal encouragement;

4. In public higher education institutions with the extreme nature of future professions, on the basis of the departments of physical education, it is advisable to develop and introduce in the educational process professionally-forming disciplines: "Moral–volitional and physical training for activities in extreme conditions of the profession", "The course of survival in extreme conditions."

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