

**PSYCHOLOGICAL AND PSYCHO-PHYSICAL TRAINING AS A PART OF PHYSICAL EDUCATION OF STUDENTS IN HIGHER EDUCATIONAL ESTABLISHMENTS**

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**Annotation.** *Purpose:* to analyze the phenomenon of psychological and psycho-physical training as part of physical education of students. *Material:* literary sources about problem investigation. *Results:* are given and analyzed a number of factors that determine the need for higher education in the special psychological and psycho-physical preparation for professional work. The question of psychological and psycho-physical preparation of students for professional work in the structure of physical education has considered. The difference has shown in the proposed concept of "psychological and psycho-physical training" known in physical education concept of "professionally applied physical training" and "psycho-physical preparation". Psychological and psycho-physical readiness is considered in the work as a kind of substructure overall personality structure. A model of psychological and psycho-physical preparedness of the student has proposed in this work. *Conclusions:* psychological and psycho-physical preparation of students for professional work can be done in physical education. It should be considered as part of physical education students in relation to specialized psychological and psychophysical characteristics of future careers.

**Key words:** physical education, training, readiness, personality, students.

**Introduction**

Psychological and psycho-physical training is practicing in different spheres of people's functioning. For example it is actively practiced in armed forces, (especially in detachments of special purpose). There psycho-physical exercises are called those exercises, which train simultaneously psychic and organism of military officers. They are complex of actions, which shall be fulfilled in conditions of danger and are connected with significant physical and psychic loads. V.V. Yagudov [13] notes that sense and content of military officers' psychological trainings are determined by conditions of modern combat. Among them he calls: a) danger (for life of a person); b) sudden character of situation; c) deficit of time and information (contradictory information); d) enormously complicated management of troops; e) discomfort. Character of influence of the above mentioned factors determines content of military officers' psychological training. Psychological training of military officers is oriented on formation of psychic stability and psychological alertness. It is formed in process of military lessons and classes in conditions close to combat.

Home affairs board also pay great attention to psychological training. Here it is regulated by orders of ministry of home affairs (Order of Ministry of Home affair Np.1444, dt. 25.11.2003 "On organization of professional training of tankers and junior officers of home affairs departments"; Order of Ministry of Home affairs of Ukraine, dt. 28.07.2004, № 842 "On further development of service of psychological maintenance of home affair boards' service functioning"). In these documents psychological training is defined as complex of measures of psychological-pedagogic character, oriented on formation, support and development of officers' professionally important psychological skills.

Psychological training is also paid great attention in State board guard service of Ukraine and in the Ministry of Emergency situations. In theses boards it is also regulated by special orders (instructions on procedure of organization and practicing of psychological prevention work with staff of State board guard service of Ukraine. Approved by: Order of Administration of State board guard service of Ukraine, dt. 14.04.2008, № 318; Instructions on organization of psychological maintenance of rescue services. Approved by: Order of the Ministry of Emergency situations of Ukraine, dt. 23.02.2004, № 89).

Psychological training, as certain direction of work, is actively realized in sphere of sports. Theoretical solution of the problem has been greatly contributed by A.Ts. Puni, P.A. Rudyk, A.V. Rodionov, Ye.P. Ilyin, V.I. Voronova et al. Psychological training is regarded as one of kinds (sides) of sportsman's training, which has the same significance for sport perfection as other components. They mark out two kinds of sportsmen's psychological training: general psychological training and special psychological preparation for participation in future competitions. General training is regarded as comprehensive development of psychic functions and abilities of a personality, which are required for a sportsman for successful sport functioning, in process of systemic sport trainings. It is also the basis for special psychological training.

Recent time understanding of significance of psychological training has been becoming more profound in sphere of sports. There appear ideas about psychological maintenance as compulsory component of sportsmen's training. Such approach, for example is shared by V.V. Smirnova, who reasonably includes in psychological maintenance the following: general psychological training, special psychological training for certain competitions, operative psychological influencing, psychological preparation for many years' training process. As an indicator of psychological maintenance's effectiveness she offers to evaluate psychological readiness of a sportsman in the whole.

In our opinion, it is high time to set question about psychological and psycho-physical training in other spheres of human functioning. First of all it concerns its including in training of future specialists in higher educational establishments. Demand in special psychological and psycho-physical training for certain profession at higher

educational establishments is determined by a number of factors. The first is specific influence of work on a person at present time. Fulfillment of work is not connected with sufficient motion functioning, but it is accompanied by tensed emotional state, unfavorable influence of environment and so on. Influence of these factors disturbs natural physiological adaptation and results in a number of negative for health and workability after effects. Second factor is determined by changing of place and person's functional role in modern production process. Object of specialist's labor efforts is purposeful usage of machinery and automatic systems. So responsibility of a subject for results of his work substantially increases. Modern production also sets increased requirements to such psycho-physical characteristics as stability, selectiveness, re-switching or distribution of attention, quickness, accuracy of response. Third factor is connected with demand in high intensity and productivity of specialist's labor. These indicators are limited by specialist's psychological and psycho-physical potentials but they can be improved in the process of specialized training. The forth factor is demand in psychological and psycho-physical reliability of future specialists in the process of their future work.

Such discipline as physical education can make substantial contribution in solution of tasks of psychological and psycho-physical training of future specialists. Physical culture and sport activity of students can be effective in this aspect, being properly and purposefully organized.

The research has been fulfilled in compliance with topical plans of scientific and research works of physical education department of Dnipropetrovsk national railway university, named after V.A. Lazarian and is a component of topic "Theoretical-methodological and pedagogic principles of students' psychological and psycho-physical training in process of physical education", (state registration number 0113U006237).

### **Purpose, tasks of the work, material and methods**

*The purpose of the research* is determination of sphere of psychological and psycho-physical training as a component of students' physical education.

*The tasks of the research:*

1. Analyze the sense of concepts "professional-applied physical training", "psycho-physical trainings". Definition of concept "psychological and psycho-physical training".
2. Analyze existing experience of physical education's application for solution of tasks of psychological and psycho-physical training.
3. Working out of model of student's psychological and psycho-physical training for future professional functioning.

The methods of the research are theoretical analysis of modern state of this problem's solution, simulation.

### **Results of the research**

Application of physical education for training for professional functioning is traditionally connected with professional-applied physical training. It is regarded as pedagogically oriented process of ensuring of specialized physical readiness for future professional functioning [9, pg. 3], as system of organizational-pedagogic measures, oriented on formation and improvement of professionally significant skills, knowledge and features of a personality, which are rather important for his (her) successful work in certain specialty. There have been published a lot of works, devoted o these problem. Among the most recent it is necessary to mark out the works by L.P. Pylypey, V.A. Ovchinnikov, G.V. Rudenko, V.A. Sadovskiy, R.T. Rayevskiy et al.

In scientific literature there is also concept "psychological training". It is interpreted as process of formation, fixing and activation of personality's readiness for certain functioning [2].

In scientific literature there can also be met concept "psycho-physical training". Analysis of it permits to see different understanding of it by different authors. There are approaches, when "psycho-physical training" is understood as purely "physical" (in the sense as it always was regarded in theory and practice of physical education and connected with development of person's physical characteristics). With it dexterity is regarded as the highest human psycho-physical level. This position is taken by, for example, I.M. Turevskiy [10]. Approach of S.M. Borschova [3]. A.O. Yegorychev [5] is close to it; they use "psycho-physical training" for combining of subsystems of physical and psychic fitness in one system. I.M. Turevskiy includes in psycho-physical training the following components: somatic health, motion skills, special professional skills, characteristics of nervous system. In some works [11] psycho-physical and professional-applied physical trainings are practically equated.

In our opinion it is purposeful to combine psychological and psycho-physical training in one block, when they are realized in students' physical education We base on the fact that physical culture and sport activities are effective both: in the aspect of psychological components' formation (for example features of a personality) and in the aspect of development of psycho-physical skills (for example psycho-motor characteristics). In this case there is no sense in separating these kinds of training in course of physical education. It is also purposeful to call properly this process. To express the mentioned sides we offer term "psychological and psycho-physical training".

In present research psychological and psycho-physical training s are regarded as a part (side) of physical education of students, which is oriented on psychological and psycho-physical features of their future professional functioning. Such training shall result in psychological and psycho-physical fitness. There appears a question "what is the difference between conceptions "professional-applied physical training" and "psycho-physical training" from the offered by us concept "Psychological and psycho-physical training". In our opinion in the first case accent was made, mainly, on applied (in relation to profession) orientation of, first of all, physical training of a specialist. In the second the task is different; it is formation of professionally-significant psychological and psycho-physical components.

Psychological and psycho-physical training supplement general and special physical and professional-applied physical training in students' physical education.

It should be noted that in recent researches we can see clear interest to usage of physical education's potentials in formation of personality's components. In this context we can name works by A.O.Artyushenko, S.O. Sychova, V.G. Vitun, Ye.G. Matveyeva, O.M. Sergeeva, V.Yu. Solonskiy, L.K. Solntseva et al. An interesting research of personality's development of healthy students was made by I.Ye. Kramida [6]. Among foreign works the most interesting are works by F.H.Asci [14], A.Byrne [15] and many other.

Analysis of psychological readiness for professional functioning was made in works by A.O. Avershin, L.O. Makhotniuk, V.A. Molotay, S.A. Mul, T.L. Panchenko, N.O. Priadko, V.A. Tereschenko, O.V.Tiuptia, N.V. Khmel, O.V. Khurtenko, O.A. Cherepkhina et al. They set important questions of psychological fitness for different professional functioning. At the same time complex of questions about using of physical culture in formation of psychological and psycho-physical readiness for professional function has still remained insufficiently solved. In this direction the highest progress was achieved by scientists, who studied application of physical exercises for psychological training of military or home affairs officers.

In scientific researches of this direction it was stated that physical exercises are one of means of active influence on military officers' mentality (V.L. Marischuk, Yu.P. Blazhko, V.A. Schogolyev, I.M. Yevdokimov, S.M. Ashkinazi, A.N. Potapchuk, A.G. Sarakul, V.S. Khagay et al.). For example, A.G. Sarakul [8] researched psychological fitness of special purpose military officers, trained with physical exercises, combined with techniques of psycho-emotional self-regulation. He found dependence of military officers' stability on level of their physical fitness. The author also determined that multiple repetitions of physical exercises in conditions of actual danger, physical tiredness and psychogenous influence of combat irritators, being combined with techniques of psycho-emotional self-control, facilitate formation of military officers' psychological adaptation to service-combat functioning.

V.S. Khagay[12] fulfilled work, in which he analyzed using of martial arts as a mean of formation of military officers' psycho-emotional stability. The data, rendered by the scientists, prove effectiveness of complex application of accelerated moving, overcoming of obstacles and martial arts in formation of psycho-emotional stability.

An interesting research of formation and support of psychological state of military-transport university's cadets by means of physical exercises and mental training was conducted by O.V. Prystav [7]. She determined that combination of mental training with previously conducted physical training for muscular relaxation, permits to receive higher indicators of dynamic of cadets' psychic state. The latter, in its turn, results in rising of effectiveness of educational and military-professional functioning.

Physical culture means are effective in formation of socially significant social-psychological characteristics of military officers. It was proved in works by Yu.Yu. Andreyev [1]. The scientist registered that high level of physical and sport fitness positively influences on character of inter-personal relations. He also detected that high physical fitness facilitates increasing of other cadets' respect, strengthening of personal status and self-determination in collective.

In spite of evident progress, it is necessary to note that problem of psychological and psycho-physical training of higher educational establishments' students for professional functioning, as a component of physical education, has not been yet the subject of special researches.

In the present work the most important principle of research of student's psychological and psycho-physical readiness for professional functioning is its analysis as certain sub-structure of a personality. In this connection for building of model of personality's psychological and psycho-physical readiness it is necessary to base on one or another model of personality. In the author's opinion the most appropriate for this purpose, extensive-ring model of personality by M.S. Burgin will be. Basing on it, it is possible to construct model of student's psychological and psycho-physical fitness. The main feature of this model is its hierarchic character. The basis of this model is composed of professionally significant personality's features, motivation of professional functioning and emotional stability of a personality. These components determine to large extent first of all psychological readiness for work. Above them there is a system of knowledge about structure of human psychic, person's abilities to control own emotions and relations with surrounding people. This level is also rather important for psychological readiness for labor. Next level includes specific features of some psychic processes (attention, senses, perception, memory, thinking, imagination). These components characterize mainly psycho-physical side of readiness for labor. The next level of psycho-physical fitness is psycho-motor abilities of a person. Schematically this model is shown in fig.1. Structuralizing of psychological and psycho-physical personality's fitness facilitates working out of effective methods of its formation, permits to more purposefully realize pedagogic influence.

Psycho-motor features of specialists
Characteristics of psychic processes ( attention, senses, perception, memory, thinking, imagination)
System of knowledge about structure of human psychic, abilities to control own emotions and relations with surrounding people
Professionally significant features of a personality, motivation of professional functioning, emotional stability

*Fig.1. Structure of psychological and psycho-physical specialist's fitness*

Basing on the offered model of psychological and psycho-physical fitness of specialist's fitness, psychological and psycho-physical training of students in process of physical education can conventionally be divided into two

components. The first is psychological training. It includes formation of professionally significant features of a personality and emotional stability, formation of professionally significant motivation for professional functioning, students' work on mastering of professionally significant psychological knowledge. The second component is psycho-physical training. It includes development of psychic processes and psycho-motor skills of future specialist in professional direction..

#### Conclusions:

1. Physical culture and sport functioning is actively used for solution of tasks of psychological and psycho-physical training in different spheres of professional functioning (armed forces, Home Affairs Ministry and etc.).
2. Demand in special psychological and psycho-physical training at higher educational establishments is connected with influence of such factors as: a) specific influence of conditions of work at present time on a person; b) demand in ensuring high intensity and productivity of modern specialist's labor; c) demand in psychological reliability of future specialists.
3. Psychological and psycho-physical training of students can be realized in process of physical education. It is purposeful to regard it as a part of student's physical education, specialized for psychological and psycho-physical characteristics of future professional functioning.
4. Psychological and psycho-physical trainings supplement general and special physical and professional-applied training in students' physical education.
5. Results of psychological and psycho-physical training shall be psychological and psycho-physical readiness of a student for professional functioning. It should be regarded as sub-structure of general structure of a personality. For construction of model of personality's psychological and psych-physical readiness it is necessary to base on one or another model of personality's structure.

The further research shall be connected with foundation of theoretical-methodological principles of students' psychological and psycho-physical training in process of physical education and with experimental testing of such approach.

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