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THE SPACE OF PHYSICAL CULTURE AND SPORTS

PHYSICAL CULTURE AND SPORT

HEALTH SAVING TECHNOLOGIES IN THE SPACE OF PHYSICAL CULTURE

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SOME RELEVANT ASPECTS OF THE PHYSICAL CULTURE THEORY

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Abstract. The article on the basis of the author's views is considered: the socio-semantic essence of physical culture and the theory of its providing; the role of personal development in physical culture as the target setting of the state educational standard and the value significance of pedagogical technologies in its implementation. The real presence in modern textbooks of representations on the theory of physical culture of the person from a position of the available scientific knowledge, empirical experience and technological approach is considered.

Key words: physical culture, education, system, theory, technology, physical culture of personality, contradiction, value.

The contents of concept "physical training" is represented by us as many-sided and multifunctional area of the general culture and a history of mankind, the social phenomenon representing historically certain level of material, spiritual, scientific-theoretical and practical achievements of a society, the systems of physical training received during specific activity, labour, professional - applied and military - physical preparation, sports, education and a science, embodied as values of physical perfection, culture of a healthy way of life, physical, mental, social and mental health of people, the nation and subjects of society.

It is known, that preconditions of the theory of physical education have been incorporated by one of founders of functional anatomy of P.F.Lesgaftom in 1896. The same year by him «Courses for preparation conductress physical exercises and games» were open for the first time in Russia. The term «physical education» belongs to him. During Soviet time it has been developed, in a context of scientific discipline, the theory and a technique of physical training (N.I.Ponomarev, L.P.Matveev, A.D.Novikov), and in 80th years of XX century she was transformed by L.P.Matveevym to the theory and a technique of physical training. The argument of the given phenomenon him spoke that: «Not looking on all doubtless importance of physical training, all physical training is not reduced only to it and that therefore the theory of physical training cannot apply for the status of the general theory of physical training», namely because the physical training is subdivided into main branches (theories and techniques of physical training, sports, professional - applied, improving - educational and other forms) [8]. In our opinion on the one hand the given argument relative, and with another absolutely true. For physical training is a multiple psycho-pedagogical process of impellent education and development of physical abilities in display of force, endurance, speed, flexibility and the dexterity, expressing, in a result, in their qualitative condition (quantitatively - criteria characteristics). The given process makes a specific field of activity in physical training as a whole, does not exclude knowledge - intellectual formation and formation of social - cultural wealth.

«The pedagogics of physical training» [3] clears the road to the general theory of physical training and a new subject matter. In other variants «Pedagogics of physical training and sports» [4]. At attentive perusal of them, you come to a conclusion that the general pedagogics is drawn to physical training, more precisely, great volume general pedagogical knowledge integrates physical training so, that is especial her and it is not visible. Undoubtedly, the given discipline is necessary for experts, but in more penetrating integration and, in our opinion, under the following name «General pedagogics in the theory and practice of physical training». But this author's opinion, at what on anything not applying. For we understand, that the judgement about something can be absolute or rather true, or not true, and by and large debatable and free, that, as a matter of fact, and gives development of a science.

In the general theory of physical training a special place should borrow and the theory of physical training of the person, and also pedagogical technology of her formation. For this purpose there are all bases.

First, formation of physical training of the person on all educational levels is the strategic purpose designated in state standards on discipline "Physical training". That is absolutely true, for essence of pedagogics and education as a whole, by and large and should consist in becoming and development of the person. In revealing endowments as genetic, hereditary predisposition to any activity (intellectual, art, creative, sports, etc.) And development on this fertile field of ability as genetically, socially and personal the certain and produced quality (or sets of properties and qualities) something effectively to do, operate and make. In pedagogics the given process refers to as an individualization (to not confuse to an individual approach). At a level of ability, and then talent and genius the pedagogical and philosophical essence of the person which is characterized by a creating orientation of activity and a high level of its productivity is defined.

Today in the world community practically in all spheres, deficiency of persons is ascertained. By way of progress it is the serious problem removing on a Shakespearian question (to be or to not be?). To have the strategy of a life, the opinion or to be the slave to circumstances. To be as all or to rise above all on higher level of perfection. For example, in a science makes opening only the one who is beyond the standard thinking traditionally imposed by scientific community, and also for frameworks of personal ambitions of own achievements.

In this plan it is possible to confirm confidently, that formation of physical training of the person as the pedagogical purpose in physical training, is strategic and universal, including and all previous purposes declared in the previous curriculums on discipline "Physical training" till 1994 (physical perfection, harmonious physical development, preparation for work and protection of the Native land and other). All these purposes, as a matter of fact, are individual problems of physical training the persons determined by its only specific component of physical perfection.

Second, necessity of presence for the general theory of physical training of the developed representation on physical training of the person is determined by presence of set of clauses on the given problematics, published not only in materials of a various level scientific - practical conferences, and also the form of author's abstracts and monographies candidate and theses for a doctor's degree, manuals [5, 6, 7, 8], revealing essence of physical training of the person, both in general-theoretical, and in technological aspect of its formation.

And, nevertheless, at studying the modern textbooks concerning physical training (and all of them from themselves, undoubtedly, represent the certain scientific and educational value) the contradiction is found out: between available knowledge about logic it is system the organized essence of the maintenance of physical training of the person (its basic components, components of their qualities and criteria of an estimation of these qualities) and absence of due reflection of the given knowledge practically in all textbooks (behind exception, the textbook under J.F.Kuramshina issued in 2003 [9] and textbook under edition by M.J.Vilenskogo's edition, 2013 [10]).

All this completely concerns also pedagogical technology of formation of physical training of the person. So, in the textbook « the Pedagogics of physical training and sports » [4] is considered general essence and evolution of pedagogical technology. However only general essence, but not concretized, by and large to discipline "Physical training". Pays special attention to pedagogical technologies, their version, in pedagogical activity and in the textbook «Pedagogics of physical training », but again in the generalized kind [3].

We consider pedagogical technology of formation of physical training of the person from two positions, first, as complete conceptually - organized the multipurpose process providing practice -guided immersing in the special scientific - educational environment, display of culture of the person of civilized, harmonious unity in it physical, mental, social, spiritual, mental and is competent - operation. Second, from a position of functional system of organizational ways algorithmic managements educational - cognitive and practical activities trained. She is considered as the ordered set of psycho - pedagogical actions, operations and procedures, instrumentally, functionally, achievement of the positive result, the predicted and diagnosed (checked) purpose is scientifically-grounded providing in any case.

That is, as emphasized V.P.Bespalko [1], achievement in any pedagogical case of the positive result, predicted and diagnosed (criterial checked) the purposes is and there is an essence of any pedagogical technology. As physical training of the person us it is understood, that it is sphere of the general culture of the person, his system - stable, qualitative, dynamic, competence - creative, active, spontaneous and the independent condition described by a certain level of special knowledge and mental abilities, motivational - valuable orientations, social - cultural wealth and the physical perfection, got as a result of education, formation and embodied by means of emotional - strong-willed displays in various kinds of gymnastic - sports activity, culture of a healthy way of life, self-education, physical self-improvement, spirituality, psychophysical health and individualized style of ability to live. This general and during too time concrete on its basic components. In the theoretical and the technology - pedagogical plan it is detailed is opened in works [5, 6, 7, 8].

It is necessary to note, that in the contents of the majority of textbooks available today there is no also a reflection competence the approach (except for the textbook on pedagogics of physical training under общей V.I.Krilichevskogo's [3] edition, and also the textbook on physical training under M.J.Vilenskogo's general edition [10]. Many authors of textbooks do not take into account for a long time the established requirements to a spelling of textbooks and manuals in which since introduction of the textbook, and then in the beginning of each chapter and the unit the set competences' is formulated, and at the end of each chapter the list (structure) of control questions for check of the acquired knowledge which are a basis for offsets, and in the booking contents - for examinations under the theory of discipline.

In conclusion of clause it is necessary to emphasize, that the physical training, education and a science its providing represent conclusive social and personal value which is treated by us as ideologically and the requirement -motivational semantic importance of system of attitudes, behaviour, activity of a society or separately taken individual in the certain sphere of the human life, shown in personal, social or personal -social interests and inquiries, spiritual and material phenomena (culture, a politics, economy, education, a science, religion, physical training, art, consumption and possession, etc.), Differently, all this to what concern yours faithfully, a recognition, respect or preference, is conformed to all spheres of ability to live of mankind. Represent historically developed system of sights and attitudes on material and an inner world of the society, the certain generality of people, the nations, nationalities, the states, group, activity, etc.

As to textbooks, we shall give M.J. Vilenskogo's of word, the founder of the cardinal ideas connected to value of physical training of the person, that objective necessity and requirement of a science and education for creation of the textbook of new generation which basis is made with the theory of physical training of the person and pedagogical technology its providing today has ripened.

The purposes, and, not only in education, but also in a politics, economy, public health services, etc., determine the maintenance contents of an orientation of activity of a society and the state. The purpose is a leading component of ideology of any social system. When she it the way on which it is necessary to go is clear, clear also, and when there is no - the life of a society turns to chaos. In particular, the physical training associates in consciousness of youth as a set of various physical exercises and kinds of sports, instead of as the scientifically-grounded both logically ordered and multipurpose system of activity in a society, education and a science.

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THE NEW PARADIGM OF PHYSICAL EDUCATION OF STUDENTS IS STUDY OR TRAINING PROCESS

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Abstract. The article discusses the organization of physical education of students in universities. It is shown that the new aim, designated by the state standard – the formation of competences in the field of physical culture and sports, puts the teacher in this academic discipline the need to find new approaches to the implementation of individual practices of physical development of students. .

The possibility of separating the educational and training processes of students' physical preparation during education is noted.

Key words: physical education, student, university, state standard, individual practices, educational or training process.

The introduction of a new federal standard in the system of high school in Russia in all areas of education has made significant changes in the technology of teaching. In particular, in the field of physical education, the purpose of training has changed significantly. In the latest edition of the standard, a new aim is formulated as the formation of competences in the field of physical culture and sports for the effective use of the means and methods of physical culture and sports in future professional activities. Achieving this aim involves the wide use of self-training work of students on the widest range of physical activity.

These aims and objectives are mainly formulated in the OK-8 general cultural competence, which includes most of the requirements for mastering the values of physical culture and other competency numbers.

In the FSES (federal state education standard) 3+, OK-8 is formulated as: "The ability to independently, methodically correctly use methods of physical education and health promotion, readiness to achieve an adequate level of physical fitness to ensure a full-fledged social and professional activity. Ability to organize your life in accordance with socially significant ideas about healthy lifestyles; the ability to independently apply the methods and means of training and self-control, building and implementing promising lines of intellectual, cultural, moral, physical and professional self-development and self-improvement ".

New aims and objectives have changed the entire system of physical education of students. In accordance with the Order of the Ministry of Education of the Russian Federation, No. 301 of April 5, 2017, the distribution of hours for classroom and distance education, that is, self-training time is determined by local university acts.

In particular, in KNRTU-KAI, the distribution of hours in physical culture is approved as follows. The basic course consists of 18 hours of classroom lectures and 54 hours of independent study in the first year of study. Elective discipline, in the form of practices in a chosen kind of sport, is conducted on three courses of bachelors in the total amount of 328 hours, that is, 1.5 hours per week [1].

A small amount of classroom training makes teachers further motivate students to self-assimilate and introduce into their daily life the skills and abilities acquired in physical education classes.

The purpose of the article is to examine the question of how the requirements of the standard of education are implemented in the context of the actual educational process in physical culture in the areas of bachelor studies.

Within the framework of the modern standard of education, the subject of physical culture has been divided into two parts - "Physical culture and sport", the basic course, the theoretical part, and the second part of the subject with the same name, only with the definition - "elective discipline", where practical classes are held on the sports fields.

In the field of obtaining the necessary knowledge, the problem is solved at a typical level for all students equally within the framework of the basic course of the discipline. However, the volume of this knowledge depends on the adopted local acts at each university, which determine the ratio of classroom and self-study. It is clear that even with the most favorable case for the teacher - the active study of theoretical material by students and close monitoring of the knowledge gained at the test, the acquired knowledge will not be long remembered. However, in this direction the features of the educational process are clear and can be planned, and the competence can be assessed.

A more difficult task is faced by teachers in the formation of competencies in the framework of skills. During the formation of the standard, it was assumed that the work programs included seminars and methodological exercises, which could individually show how physical exercises are performed, how exercise complexes are formed to improve, for example, strength, flexibility or speed, what exercises are used for various illnesses, give practical advice on health problems. In Russian universities, the so-called space of physical culture and sports [2] has been formed, in which students are physically educated in an effective way.

In universities, physical education classes are conducted by real teacher with a certain classroom load,

with an individual plan, and now with the need to fulfill the requirements under an effective contract, which includes requirements for scientific research. In addition, publication of research results in journals with a high level of citation is required.

Along with the traditional classes, students are offered classes in sports sections, but by completely different rules, like in sports schools, with the need to improve sports skills and take part in competitions. In the real conditions of an elective course, a student chooses one or another group and sport that the university offers him, based on the capabilities of his material base.

At the time of selection, the student solves his main task - determining the trajectory of his physical development, what skills and abilities he can get at the university. Here comes the so-called bifurcation point in his training. Either he goes to the sports section and is engaged in the framework of the training process, or remains within the framework of the traditional educational process under the guidance of a physical education teacher. The accepted definition of the subject as an elective discipline seems to allow such a division.

It can be noted that after the point of separation the learning process can be transformed into a training one, already with its own rules and requirements. In this case, new problems arise before the management of the department, in particular in the field of security.

While the student performs in domestic competitions and trains twice a week, he is in the system of teaching general physical culture according to the plan of the teacher. But the transition to the sports section and participation in the composition of the national teams of the university or the republic is already accompanied by a number of difficulties. At the same time, the level of expected competencies cannot always be monitored and evaluated. Moreover, in active sports the possibility of injury is not excluded.

However, the choice of students and the possibilities of universities may not always coincide; hence the opportunity to practice your favorite sport outside of the university is appeared. For example, the choice of sports such as billiards, chess, or cheerleading, can hardly form the expected indicators of physical development, although it is quite possible to instill a love for the sport.

In recent years in universities sport basis essentially improved and students may study any sports and modern physical exercise complexes In the first year, and then in each course, the student can choose how to realize his physical development trajectory within the framework of the elective discipline and, therefore, what skills he will receive upon graduation.

Considering the individual interests of students, the university offers them a wide range of sports, including a standard set of sports for general physical training. In these groups, the learning process is implemented according to the traditional scheme with warm-ups, elements of athletics and gymnastics, game exercises, regular sessions in the pool and at the ski base.

Organization of the educational process in practical classes begins with the distribution of students in selected sports that are cultivated at the university. A number of groups use traditional general physical training or fitness classes. Several groups are formed by game sports and swimming. Some students go to national teams and train outside the school schedule on a sports club schedule.

Recently, in the structure of the departments of physical culture are realized significant changes. Study-training centers are being formed, on the basis of which study classes are combined with training ones. An association of student sports clubs (ASSC) has been formed, which include mass competitions in their calendar and attract a large number of students who have not found themselves in sports, even at the level of university teams. The ASSC holds mass streetball, workout and yard sports competitions. Include in their sphere of interest first-year students, for whom a special spartaciada is held.

Nevertheless, the assessment of students work in practical classes, taking into account the chosen type of realization of their physical activity trajectory, also passes according to a points rating system. The main focus of the assessment of the student's work is based on the number of classes attended. The student is invited to participate in the competition for the delivery of the standards of the GTO, for three or four kinds per semester. In the case of classes in the sports sections for students developed technical standards. Students also receive additional points for participating in mass competitions.

Thus, the active interaction of the teacher and the student will allow controlling the formation of the required competencies during the entire period of study.

Obviously, the acquired skills in physical education classes can only be checked by the life of a person after graduation. Whether a person will be able to carry and preserve the values of physical culture obtained at the university, whether the acquired skills will help him in his professional activities, whether he will accept the principles of a healthy lifestyle, this largely depends on the individual, and not on the teacher and the assessment that he will be given when passing the test.

Thus, the modern educational process in physical culture, divided into two directions, however, presupposes the preservation of the main goal - the formation in the process of learning the required competencies defined by the Federal State Education Standard.

The noted features of the implementation of the requirements, which appear when choosing individual trajectories of physical development, can be solved already in modern conditions. Given the rapid development of the material base of universities and the sports infrastructure of Russian cities such changes can be expected in the near future.

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SOCIALIZATION OF FRESHMEN STUDENTS IN A TECHNICAL UNIVERSITY BY MEANS OF PHYSICAL CULTURE AND SPORTS

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Abstract. This article discusses the problems of socialization of first-year students in a technical University. Today, educational institutions in addition to the main goals, education and training, there is another task – to promote the comprehensive personal development of students. Through education, the young generation is transferred to social, cultural and moral values, social norms of behavior characteristic of a particular society, the mastery of these knowledge and skills contributes to the formation and development of qualities that help in self-realization, i.e., in essence, contributes to the socialization of young people as future professionals. The study (questionnaire) made it possible to identify problems, determine causes and solutions to this issue.

Key words: first-year students, socialization of students, physical culture and sport, University.

In modern conditions, future specialists are presented with significant demands for personal, intellectual and physical development, possession of a significant degree of professional skills, knowledge, skills, creative abilities – all this together is one of the key tasks of the modern education system [4].

Education is a historically formed configuration of organization and regulation of collective life, which provides a vital function for society – the transfer of knowledge, which includes a set of rules and regulations, patterns of behavior, special institutions, a system of control.

The purpose of education is to help students to adapt to the existing social system, integration into the professional environment, to determine their place in modern society. At the same time, the socio-cultural and socio-economic reorganization of modern society, the active formation of the modern labor market, the rapid development and complexity of high-tech mode of production dictate new requirements for the training of graduates of educational institutions of higher education. Such graduates should have significant qualifications, be competent in professional activities, able to maintain and maintain the authority of the profession, able to quickly adapt to the transformations in the production and social processes, clearly imagine the results of their work.

The increase in the requirements for professional training of students in demand in the labor market, activate the search and implementation of fresh approaches to the implementation of new functionality of a competitive system of higher education, providing the best entry of young professionals into society, better adaptation and effective professional self-realization [3].

In the process of studying at a technical University, to future professionals have great demands: physical endurance, psychological stability. Students need to study a much larger amount of information, in comparison with the school volume, in the process of learning technical subjects prevail over the Humanities, students are required to be able to work independently in order to gain knowledge [1]. As a result, universities, in addition to the main goals - education and upbringing, comprehensive personal development of first-year students to the learning process, the task of social adaptation or socialization of students is acute.

Education at the University begins for young people with the adaptation to the unusual social role of the student, which is interconnected with the introduction of new responsibilities and requirements in the student team. To evaluate the results of socialization of the student can be by how he is successful in the student environment, in the acquisition of life skills in adult society.

The essence of socialization is revealed in such processes as adaptation, integration, self-development and self-realization. Socialization of the personality of future specialists is largely due to the success of adaptation to the new conditions of the educational environment, i.e. the transition of students from one sphere of activity to another [2].

Adaptation concerns all processes occurring in the human body (biological, mental). Speeding up the process of adaptation in the student environment can be implemented subject to the manifestation of skills and development of those properties of the individual that she needs in the process of getting used to the new youth environment. Therefore, one of the main directions in the organization of conditions of successful adaptation of students is physical culture and sports (FCandS) [5].

Needs in FCandS is the most important motivation for the behavior of the individual. High need to stimulate students to engage in FCandS have interests reflecting the selectivity of the person in relation to the object, which has emotional appeal and significance (at a low level - dominated by emotional appeal, at a high level - dominated by objective significance), ie interests reflect the needs of the person and the means to meet them. Interests appear when there is a goal of physical culture and sports activities, there are three main goals: 1.getting satisfaction directly from the process of training; 2.achievement of certain results or goals in the course of classes; 3.awareness of receiving further prospects from the process of training.

FCandS as specific types of human activity can be a powerful stimulus for socialization in any society. The main thing is that in the system of cultural universal values significantly developed degree of health and physical fitness determine the possibility of development of other values, i.e. are the Foundation, without which the process of socialization is ineffective [5].

Purpose of research. In this study, we aimed to identify the problems of socialization of first-year students in a technical University and to determine the methods (ways) to solve them.

Method of research. In the study, we used the method of questioning (using a handout). The survey was massive and continuous.

The results of the study and their discussion. The study of the problem of socialization of first-year students in a technical University was conducted in the classroom of physical culture with students of the Institute of architecture and design (Iaid) for the period of 2018-2019 academic year. In the course of the study, 309

people participated in the survey: 58 - boys 18.77%, 251 - girls 81.23%. The questionnaire asked the following questions and determined the results:

1. "What problems in the 1st year of study at the University are of paramount importance for you?». 37.86% (117) of respondents noted primarily financial problems(lack of money); 28% (89) problems with education (debt, difficulties in learning and understanding of educational material); 11.97% (37) health problems (deterioration of health due to physical and psycho-emotional overload in the learning process); 10.68% (33) change in living conditions (living in a hostel or separately from parents in an apartment); 7.44 % (23) problems of interpersonal relations (poor relationships with classmates); 3.23% (10) psychological problems (self-doubt, tomorrow).

2. To determine how students spend their leisure time, the question was asked: "How do you spend your free time from school?». Respondents gave the following answers: 44.33% (137) are engaged in FCandS; 20.06% (62) spend free time with friends; 14.56% (45) are engaged in voluntary volunteer activities; 12.62% (39) devote all free time to study; 8.41% (26) devote to self-education; 4.2% (13) "sit" on the Internet (do nothing).

3. To the question: "how do you prefer to engage in FCandS in your free time?": 48,86% (151) of the respondents replied that training on their own; 00% regularly practice in the sports teams; 32,36% (100) in a free time from school not doing any sports, but happy to attend classes in physical culture at the University; of 18.77% (58) are engaged in fitness clubs.

4. To clarify the question: "What is the impact of FCandS classes on your socialization at the University?" 53,3% (165) of the respondents reported that classes FCandS help self-expression and self-assertion among the students; 14,56% (45) noted the positive influence of physical culture on the development of the perfect body shape; 11,97% (37) classes of physical culture and sports help improve General physical preparedness of the organism, which makes it easier to endure the emotional, physical load during the study; 11% (34) experience positive emotions from interpersonal relationships with the opposite sex in the course of employment; 9% (28) of FCIS classes helped to make new friends and join the volunteer movement.

The survey revealed the priority problems of first-year students: financial, difficulties in the process of learning, psycho-emotional experiences, interpersonal relationships, housing, etc. the Study of the issue of leisure of modern students allowed to establish that most of the respondents prefer to spend their free time (sports, communication with friends, volunteering, study, self-education), but it was also found that a small number of students are influenced and dependent on the Internet. The positive thing is that the surveyed students are mostly engaged in any kind of sports and get physical activity on their own or in the conditions of fitness clubs. The study of the issue of socialization of first-year students revealed the positive impact of FCandS in this process.

Conclusion. It can be concluded that the socialization of first – year students in a technical University by means of FCandS is a process of competent application of a complex of means and methods of physical education (FV), which help the personality of first-year students to spiritual self-determination, moral development and physical improvement, to rapid adaptation to rapidly changing conditions of life. FCandS in the education and development of students act as a complex personality qualities that play an important role in the professional culture of the future educated specialist. Understanding of FCandS as a social and individual value, as one of the important means of socialization of young people, should be an important incentive for the development of new attitudes in the education of public consciousness and personal motivations that contribute to the active development of the values of FCandS personality and society as a whole [5].

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CLUSTER APPROACH AS A TECHNOLOGY OF THE FORMATION OF THE SOCIAL AND ACTIVE POSITION OF A STUDENT – A FUTURE TEACHER OF PHYSICAL CULTURE

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Abstract. The article discusses the cluster approach as one of the ways to create a sports and educational cluster in educational organizations. The analysis of literary sources of theoretical positions is given.

Key words: cluster, cluster approach, technology, socially active student position, physical education teacher, sports and educational cluster.

RESEARCH RESULT

During the consideration of the sources of scientific literature, we have carried out the selection of the most relevant to the subject of this study of pedagogical and theoretical calculations, the authors of which are modern scientists-practitioners. One of them, Yu. V. Gromyko, argues that the cluster as a system-forming concept of modern pedagogy proposes the Association in its composition of a number of organizations, the relationship between which is provided by the General direction of the implementation of activities and the interdependence of its results [1].

Such a term as the educational cluster" of this day is in demand to refer to the multitude of phenomena of scientific reality. However, most of the researchers who turned to the study of this phenomenon agree that this concept should be used as a designation of a systemic construct in vocational education, uniting universities in the fields of training in close connection with the institutions-employers of future specialists. In particular, this approach to the educational cluster is demonstrated in the mono-graphy of A. V. Smirnova [5]. In a series of similar noteworthy opinion T. I. Samovol, claim-ing that the concept is inside the tion of the common interests of specific actors, Mani-laudisa in the implementation of joint activities within the same enterprises with the aim of eliminating possible competition [5].

The result of our scientific research was the following statement: the cluster approach in modern pedagogical science finds its expression in the form of dialogical interaction of subjects of society, in the role of which can be higher educational institutions, training specialists of narrow profile, different profile and sports institutions, which are relevant in terms of employment of graduates of the enterprise. Their joint efforts are aimed at obtaining a ready subject of society capable of implementing an active life position, harmoniously combining the features of a high-level profession and a socially included indie species.

In our case, the application of the cluster approach is due to the need to create conditions for awareness of the subject of training in the field of sports and educational cluster diversity of future professional activity and the need to use it own creative hidden opportunities, as well as improving the effectiveness of training through the organization of interpersonal project activities. The cluster approach from these positions is designed to strengthen ties between professional educational institutions, as well as facilitate their interaction with government, public, sports and commercial organizations, which in some cases will contribute to the implementation of personally significant projects [3].

In accordance with the objectives of this study, we, following B. T. Likhachev, understand the complex of forms, methods and means of pedagogical influence on the individual, having a special educational orientation and being a kind of "organizational and methodological instrument of the pedagogical process" [4].

Thus, the above concept of the cluster approach demonstrates a close relationship with the introduction of special educational programmes designed to formalize the structure of sport and education cluster educational organizations, on-Board on the preparation of the expert, has an active social position and based on the Dialogic principle of operation with the organizations time-tion level with a view to the phased implementation of professional tasks [3].

In General, it should be noted that the team as a subject of implementation of educational goals is very promising in terms of the impact on the personality of each individual member, which increases the efficiency of team work, eliminates dissociation between students, formed Navy-Ki mutual support and assistance.

A prerequisite for the formation of socially active position of the individual is its implementation against the background of relationships with other members of the team or representatives of significant organizations. The activity of each individual is manifested in this case in the ability to concentrate, to mobilize to achieve a common goal, in the ability to support their ideas and ideas, to adequately assess themselves in the circumstances and the current professional situation as a whole.

The formation of the socially active position of the student – future teacher of physical culture in the framework of the cluster approach involves the active participation of the individual in the multi-project space of the city, the University, the group, which contributes to the improvement of existing professionally significant qualities and the development of those who were previously in a "sleeping" state in order to maximize the effectiveness of training the future specialist.

SUMMARY. Thus, all of the above indicates the legitimacy of the cluster approach in the preparation of the future teacher of physical culture, which has a socially active position and involves the following compliance with the following principles:

– integration into a cluster on the basis of a single goal, the presence of legal validity of interaction of subjects of professional training;

– stages and continuity of professional education in the field of physical culture, continuous self-improvement are one of the basic conditions for the successful formation of the active position of the student;

– the organization of sports and educational cluster involves providing the subjects of education with opportunities for intensive personal and professional development within the educational environment of the University;

– the level of formation of socially active position of a University student depends on the number of relevant areas of activity in which he could show his inclinations.

The results of scientific research presented in this article can be claimed for further disclosure within the framework of the relevant scientific and pedagogical research, and in addition, they are the theoretical basis for the organization and conduct of a practical experiment to create a cluster of sports orientation in the educational environment of a higher educational institution.

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DEVELOPMENT OF PHYSICAL CULTURE AND SPORT IN THE SOVIET RUSSIA IN THE MIDDLE OF 1920TH

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Abstract. In article theoretical and organizational aspects of formation of the Soviet sports movement in the mid-twenties in Russia are considered by. Conditions of development of physical culture in rural areas are shown.

Key words: Russia, physical culture, sport, Supreme council of physical culture, sports circle.

Introduction

In any society physical training is an important part of physical education. Its task is to prepare comprehensively and organically developed, active and healthy citizens having humanistic and universal lines. Tasks, essence, methods and means of physical education are determined by socio-economic factors of development of society and correlated by its ideology. In the Soviet state mass physical education and sport were ideologized and were actively used by the authorities in political life.

In modern Russia obvious updating of the questions concerning the development of mass physical education and sport is observed. Series of "Olympic" and doping scandals show that in the state sports policy there are serious defects, despite adoption of such important documents as the Federal Law "About Physical Education and Sport in the Russian Federation", the FTP (federal target program) "Development of physical education and sport in the Russian Federation in 2016-2020", the decree concerning Ready for Labor and Defense, or GTO and so on. Besides, there is understanding of promoting of a healthy lifestyle in society for spiritual and moral education of citizens. There is also understanding of loss of many positions of the state on the world sports scene in connection with deterioration in development of mass, in particular, children's sport during

In real conditions of permanent system crisis studying of the accumulated experience of activities of the domestic authorities for physical training of the population, especially younger generation is of particular importance. In this regard the 1920s years are of special interest as by that period Civil war had been ended, there occurred some power to pursue more planned and purposeful policy in the field of physical education and sport.

Methodology

Realization of the research objective was reached by means of the principles of objectivity; systemacity; historicism; on the basis of a wide range of published and unpublished documents, first of all, archival.

Results

In 1920s there is a refusal of absolutely militarized nature of the sports movement; development of new organizational forms of sports practice (sports clubs at factories and plants, trade-union clubs, local committees and so forth); the balance is in activity of the Supreme Council of Physical Education, party, trade-union and Komsomol structures [6; 7].

The XII congress of Russian Communist Bolshevik Party in April, 1923 emphasized that the increased interest of young workers for physical education and sport had to be used by the party as for physical improvement of younger generation of the proletariat, and for strengthening relations of Komsomol with the youth for what it is necessary to unite at the enterprises young workers in physical education clubs [5, 128]. The Central Committee of Russian Communist Party of Bolsheviks recommended to use the sports organizations for communistic education of workers in general, and, communists in particular, in its circular for all party organizations (1923). It also recommended to provide decisive influence of Russian Communist Party of Bolsheviks in sports clubs, and to carry out sports work in the context of all cultural and educational activity. In May, 1924 the XIII congress of Russian Communist Party of Bolsheviks and organizational bureau of the Central Committee in the resolution of May 15 suggested to involve wide circles of the working youth more actively in exercises. It also recommended to make the work massive through the organization of healthy entertainments of rural youth, to promote persistently sports in rural areas [3, 88]. In January, 1925 during a plenum of the Central Committee of Russian Communist Bolshevik Party questions of health strengthening of Komsomol asset were considered and the decision concerning the introduction of physical education in life of the youth in the broadest sense was made (exercises, hygiene, daily regime, natural forces, etc.).

In 1920s the participation of the trade-union organizations in sports work considerably increased. In 1923 organizational forms of the amateur sports movement were defined. The physical education club at trade-unions was considered as the most optimum. "Outdated" bourgeois sport societies and clubs were abolished, and the Komsomol physical education organizations were transferred to trade-unions [4, page 4-5]. In 1924 the VI congress of trade unions issued the decree on need of creation of physical education in clubs and red corners. Primary trade-union organizations undertook to use physical education more actively for association of workers around labor unions and improvement of workers by means of physical education clubs at production. In 1924 2482 sports clubs at the trade-union organizations functioned in the Russian Federation. 224267 people were engaged there. 319035 pupils were involved in sports by means of trade unions. In 1925 the quantity of clubs increased up to 6370 numbering their members 630182

and 745237 pupils [2, 432-433]. Despite considerable dynamics, on an enlarged plenum of Supreme Council of Physical Education "high-quality weakening of work and difficulty of public education" was noted on May 13-16, 1926. The factors constraining the development of physical education and sport in the country were designated at the forum: "public opinion on physical education is insufficiently concentrated; the number of workers especially adult involved in physical education was not enough; its insignificant penetration into countryside, insufficient attention from Supreme Council of Physical Education to this work and studying of its advance means", etc. Besides the attention to lack of understanding of the importance of a role of physical education in life of society and, as a result, interest in distribution of physical education was paid from party and Soviet organizations. The result was "decrease in their influence ... on work of the local physical education organizations (clubs). There was also a trend of entering into the physical education movement of elements of narrow regionalism and sports to the detriment of the system of Soviet physical education" [2, 449]. Weak material and technical resources were also emphasized. Unorganized medical control and low level of training of the leading and instructor personnel were also mentioned. For example, in Vladimir province 500 athletes were the share of 1 instructor. It was noted that the qualitative list of instructors left much to be desired. So, many former athletes were involved in sports work, but they were not trained for carrying out it. As a result, the focus was shifted only to sports activities – "sports". Physical education clubs "turned into the sports clubs which didn't concern the general political and educational activity" [1, 433].

Sports practice in countryside was "failure". On an enlarged plenum of Supreme Council of Physical Education the delegate from Vladimir province said that the instructors sent from the city "did not approach" in the countryside. In 1925 only 2 instructors from 21 sent to rural areas remained at work, the others returned to the city. The speaker specified that "the main method of work in the countryside is a game method" as others methods of work did not take root in the countryside. Medical control was not adjusted because of deficiency of medics, and the working doctors in their majority were specialists of old school and "not acquainted and not interested in physical education" [2, 429]. The representative from Yaroslavl added: "The main brake of development of physical education in the countryside was the lack of suitable conditions for it. Rural clubs of physical education had no authority. Rural workers were admitted unauthoritative" [2, 430]. It was emphasized that there were not enough professional instructors, self-educated persons managed sports clubs more often; children were poorly involved; in the sent literature there were no clear methodical recommendations. From Leningrad (Saint-Petersburg) province it was reported that for training of sports workers from the countryside special courses were practiced – where clubs managers were able to get elementary sports knowledge [2, 431]. Delegates noted small number of the competitions held in rural areas which acted as a serious incentive for development of physical education. The participants of a plenum suggested to train sports workers from the countryside, to use the mobilized Red Army men more widely. It was also suggested to involve the workers coming to spend their holidays to the countryside from the city for promotion of sports activities and organization of network of sports clubs; to create special sections to work in the village at Physical Education Councils for the development of organizational and methodical issues.

The coped and coordinated work between various organizations was impossible; trade-unions often tried "to have leading positions". So, Moscow Council of Physical Education dismissed regional physical education clubs. In turn, trade unions included entirely dismissed local organizations in the clubs though many participants of these organizations were not members of these trade unions. Moreover, Moscow trade unions sometimes tried to change Councils of physical education. For example, Moscow city council of trade unions instructed that sports grounds were provided only by trade-union organizations and it is obligatory to coordinate with it. In Stalingrad province in the mid-twenties traced "a certain tendency to syndicalism, to departmental physical education". There was an accurate division to "Soviet physical education" and "trade-union physical education". Understanding "abnormality" of such state, the member of All-Union Central Council of Trade Unions F.M. Senyushkin said: "... We consider the work quite coordinated with Supreme Council of Physical Education. The main materials (work plans of trade unions in the sphere of physical education) were also coordinated with Supreme Council of Physical Education ... If there were any troubles about it, we did not know about it. Supreme Council of Physical Education, knowing about these friction, did not report anything to All-Union Central Council of Trade Unions for taking necessary measures" [2, 440]. One of executives of Supreme Council of Physical Education M. Seredkin called: "It is necessary to practice a course of total association, united leadership in the sports movement. No indulgences, No retreats" [2, 443].

Conclusions

Thus, by the middle of 1920s organizational forms of physical education - sports clubs were defined. However there was no common conceptual position concerning contents and methods of physical education and sports work. Besides the efficiency of physical education work restrained by low qualification of instructors, weak material and technical support, especially in rural areas, etc.

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INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE "PHYSICAL CULTURE, SPORT, TOURISM: INNOVATIVE PROJECTS AND ADVANCED PRACTICES" DEDICATED TO THE 90th ANNIVERSARY OF THE BASIS OF THE DEPARTMENT OF PHYSICAL EDUCATION REM IM. GVPLEKHANOVA (THEORETICAL ANALYSIS)

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Abstract. The article presents analytical data on the materials of the international conference. The activities of the Department of Physical Education of the University of Economics can be taken as the basis of the scientific, organizational activity of similar departments of other universities.

Key words: physical education, students, research areas, the space of physical culture and sports of the university, optimal self-realization, genetic research.

The history of the Department of physical education is rich in events and achievements. The first official mention of physical culture and sports at the Moscow commercial Institute is an entry in the Journal of the Board (1916). In 1929, the Decree of the Government of the USSR "Financial education" introduced as a mandatory subject in higher education institutions of the country, and in 1935 in MINH them G. V. Plekhanov organized mass cross-country and cross-country skiing in the framework of the program of implementation of the norms of the TRP complex. During the great Patriotic war, teachers of the Department conducted classes on physical training of volunteers and conscripts in the army, were on duty on the roofs of houses during the air raids of the enemy air force on Moscow, organized classes on physical therapy, you-complete the task of restoration and rehabilitation of the RA-nen. In the postwar period, the main tasks of the Department were: physical education of students, work on the organization and conduct of sports events, training of athletes. In 1964, a sports club was formed at the Institute. Teams of oil and gas named after G. V. Plekhanov, for many years occupied a leading position in Spartaka de universities of the city of Moscow. In 2008, Viktor Grishin was elected rector of the Academy. The first steps of the new leader are aimed at strengthening the material and technical base, the development and popularity of physical culture and sports at the University. Since September 2017, a single Department of physical education (more than 90 people) has been created, headed by Andryushchenko Lilia Borisovna. The new history of the development of physical education and University sports in the framework of the joint University.

The conference was attended by over 240 participants: foreign from Belarus, Poland, Ukraine, Lithuania, UK, etc. and from different regions of Russia: Moscow, Saint-Petersburg, Vologda, Les Sinegorsk, Volgograd, Ulan-Ude, Tchaikovsky, and the North of remorse, Kaliningrad, Yekaterinburg, Yaroslavl, Kazan, Tula, Smolensk, Nizhniy Novgorod, Hive-novska, Glazov, Volga, Ulan-Ude, Kazan, Sara-Tova, Kursk, Ufa, Glazov, Leninogorsk, Tatarstan, Vologda, Ulyanovsk, Chekhov, Vladimir, Smolensk, Orel, Krasnoyarsk, Omsk and etc.

The work began with the welcoming speech of the rector of PRUE. G. V. Plekhanova, Professor V. I. Grishin, Vice-rector for academic Affairs, personnel and property complex, Professor T. A. Voronova and di-rector of CST, Professor I. V. Yablochkina. All speakers emphasized the state level of significance of the conference's problems.

The conference participants received letters from: Director of the Department of science and education of the Ministry of sports of the Russian Federation T. G. Fomichenko, Kazan national research technical University.

A. N. Tupolev-KAI, Buryat state agricultural Academy im. V. R. Filippova, ka-Phaedra physical education, Donetsk state University, and many others. et al.

At the plenary session the priority directions of fundamental scientific research conducted by the Department were determined. In the report the head of the Department of physical education of PRUE. G. V. Plekhanova Andryushchenko Lilia Borisovna, defined the mission of the departments in the framework of the main state projects in the field of physical culture and sports. "... It is necessary to promote the development of modern methods and innovative technologies of higher education and the objective use of distance learning, without forgetting about the uniqueness and effectiveness of traditional forms and methods of training in physical education and sports. The main purpose of the Department is to attract to the active employment of various types of motor activity 100% of the student's youth»

Ways to solve this socially significant and far from simple problem were proposed in the plenary Doc-lades.

The concept of creating a personal and professional - oriented space of physical culture and sports of the University was discussed in the report of doctor of pedagogical Sciences, Professor of the Department of physical education of PRUE. G. V. Plekhanov Filimonovoy Svetlana Ivanovna. "The ideally formed space of physical culture and sports of the University will provide not only a significant increase in the level of health of students, but, above all, will effectively form the readiness for optimal self-realization in the profession. This is the way to happiness and longevity...»

A relatively new line of research is presented in the following reports. Valentina Ginevičienė, doctor of biomedical Sciences, PhD. De-partment of Human and Medical Genetics Institute of biomedical science Faculty of Medicine Vilnius, Lithuania (Vilnius), Department of human and medical genetics of the Institute of biomedical Sciences of the faculty of Medicine of Vilnius Univer-

sity, Ruska hall on the latest results of genetic evaluation of the development of power and speed-power abilities in the group of athletes of Lithuania.

Doctor of pedagogical Sciences, Professor of the Department of physical education of PRUE continued the topic.

G. V. Plekhanov, Maksim Olegovich Aksenov. He was experienced in identifying athletic talent based on genetic factors. "Genetic research will allow coaches, athletes and people facing a choice of sport or motor activity to accurately determine the most suitable for each individual...".

D. O. Fesenko, candidate of biological Sciences, General Director of LLC "Biochip-IMB" of the Institute of molecular biology named after V. A. Engelhardt RANG spoke about the success of the creation and use of edematous biological microchips of low density as a new tool for high-performance genotyping of athletes. Head of the scientific and organizational Department of the Federal scientific and clinical center of physical and chemical medicine of the Federal medical and biological Agency D. A. Gudkov, candidate of chemical Sciences introduced the new trends in the study of molecular markers of the athlete's body.

Another important area was identified by the speakers. A large group of students with special educational needs study at universities. It is this category of students was devoted to the report of Pushkin Valentina Nikolaevna, doctor of biological Sciences. "The quality of life of students exempted from physical training for health reasons can be significantly improved in the implementation of disciplines on physical culture... ".

Of great interest were the remote reports of the world's leading scientists I. I. Akhmetov, doctor of medical Sciences, researcher at Liverpool John Moores University (UK, Liverpool) and Professor at Harvard University (great Britain,Cambridge), head of the laboratory of genetic engineering of the Moscow physical and technical Institute P. Yu. Volchkov. The report of P. Yu. Volchkov is devoted to the actual problem of gene doping in sports.

At the breakout sessions, leading scientists and practitioners in the field of modern technologies in physical culture and health and sports activities, health physical culture, recreation and tourism, training of sports reserve in Olympic sports in the system of higher education, psychological and educational, medical and biological support of physical culture and sports, anti-doping education and ways of effective implementation of national projects made presentations. The most striking were the reports of S. I. White, head of the Department of physical education and sports of Donetsk national University, Professor I. M. Turevski from the Tula state pedagogical University.

L. N. Tolstoy; head of the Department of Fkis R. A. Yusupov from Kazan national research technical University. A. N. Tupolev-VA – CAI; E. M. Akimova, head of the Department of physical culture, sports and safety, G. B. Bardanova, head of the Department of physical education, Buryat state Academy of agriculture. V. R. Filippova; head of the Department of physical education and sports of Saratov socio-economic Institute of PRUE. G. V. Plekhanova M. P. Konovalova, candidate of pedagogical Sciences, associate Professor; associate Professor from the Russian state humanitarian University I. V. Lazarev; associate Professor of the Department of physical culture of the Kaliningrad state technical University V. F. Zaitsev; researcher of the Federal scientific center of physical culture and sports" O. Tchaikovsky; associate Professor A. V. Titovsky from PRUE. G. V. Plekhanova; representing Leningrad state University. A. S. Pushkin Yu. V. Smirnova; associate Professor of St. Petersburg state forest engineering University named after S. M. Kirov T. N. Bakhtin; associate Professor T. E. Simina and graduate student, senior lecturer O.V. Mamonova of REU them. G. V. Plekhanova et al.

Within the framework of the conference program, master classes on innovative methods of modern motor and educational systems were held in each sports hall, software and diagnostic equipment for assessing the state of health and the impact of physical activity on the functions of the human body and improving qualification were demonstrated.

The conference was held at a high scientific level. As a result of the discussions, a resolution and an electronic collection of scientific papers on 850 pages were prepared.

The presentations were followed by discus-Sion and a discussion of the various opinions on a copy-MYM problems.

The second day of the conference was devoted to the work of novice scientists, students in the section "Student science (Sportscience)", moderated by a young and very promising pre-feeder-researcher Daria Gracheva. More than 100 participants presented their works in the section. The work was built outside the box, in the form of a scientific competition, where students joined in groups and presented their research projects. The analysis of studies shows a high level of interest of their authors in the development of the space of the University's financial culture and a huge array of non-standard solutions to these problems, which is offered by novice researchers, which allows us to look to the future with optimism.

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PHYSICAL TRAINING OF SCHOOLBOYS 10-11 CLASSES FOR MILITARY SERVICE BASED ON ATHLETIC GYMNASTICS

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Abstract. Schoolchildren of 10-11 grades of the experimental group during the school year (9 months) were engaged in the development of basic physical qualities taking into account the regulatory requirements for secondary conscripts. The control group trained according to the traditional program of physical training of high school students. General physical training during the school year led to a significant increase in the results of schoolchildren of the experimental group when performing flexion and extension tests of the arms in the arm on a high crossbar – by 62.3%, in lifting with a coup – by 60.9%, and pushing the weights 24 kg with two hands – by 51.8%, in the run for 100 m – by 10.8%, in the shuttle run of 10x10 m – by 17.5%, in strength dexterity (bending and extending the arms in the emphasis on the bars) – on 48.2%, in the control, respectively, only by – 40.4%, 22.2%, 5.0%, 2.5%, 9.6%, 10.2%.

Key words: schoolchildren, preparation for military service, athletic gymnastics, general physical training.

Relevance. The problem of preparing pre-conscription youth for military service is generally associated with their low physical fitness [1]. In this regard, the physical training of schoolchildren, taking into account their future military service, as a rule, begins more purposefully in the upper grades. It is during this period that the feelings, ideas, thoughts, actions that they associate with the defense of the Motherland [2] are most pronounced in pre-conscription youth. In senior classes, sport competitions are often held at special gatherings, an oath is being studied, and differences in the form of clothing, titles, and insignia are explained. Federal state educational standards envisage the training of high school students in military specialties and the education of future military draftees in the military-patriotic spirit. As a voluntary training, at educational institutions, military-applied sports are conducted in military centers or military-patriotic clubs [4]. At the same time, it is not an easy task to become a full-fledged warrior, to master complex military equipment, the latest weapons in terms of reduced service life. To solve it, young men, before being drafted into the Army, must have a high level of physical fitness and certain applied skills in military training, and possess moral-volitional qualities [2]. Thus, a problem has been identified which consists in the search for the most effective means and methods of physical training for young men of 10-11 grades, taking into account their future military service in the ranks of the Russian army. In our opinion, athletic gymnastics can be one of such means [3].

Purpose of the study. To identify the effectiveness of athletic gymnastics in the process of general physical training of schoolchildren 10-11 classes for military service.

Research methods. In the pedagogical experiment, only males were eligible for military service for health reasons. From schoolchildren of 10-11 grades two groups were created - one experimental (14 young men), and the second control (16 young men). Before the beginning of the pedagogical experiment, all research participants underwent a thorough medical examination, the conclusion of which was positive. The studies were conducted at the bases of secondary school No. 15 and the Children's and Youth Sports School named after V.N. Machugi, village of Pereyaslovskaya, Bryukhovetsky district, Krasnodar region, in which the sectional classes of the studied groups were organized. Pupils of the experimental group during the school year (9 months) were engaged in the development of basic physical qualities taking into account the regulatory requirements for conscripts using athletic gymnastics. The control group trained with the program of physical training of high school students.

The results of the study. The results of the endurance study (table 1) showed that at the first test, schoolchildren of the experimental group in all four exercises (tests) did not significantly differ from the control (at $P<0,05$), which suggests the homogeneity of these groups in relation to their initial state.

By the end of the school year, schoolchildren of both groups improved their results, but if in the 3 km race in the experimental group, the initial indicators improved from 802,0±11,4 to 748,3±10,3 s with ($P<0,05$), then in the control, respectively, from 809,2±10,6 to 783,2±9,9 s at ($P>0,05$). The results of the test "Cross 5 km" in the experimental group increased from 1553,0±22,2 to 1325,7±20,3 s ($P<0,05$), in the control group - from 1642,2±21,3 to 1612,3± 20,5 s ($P>0,05$). Accordingly, in the 400 m race - from 85,4±4,7 to 72,0±2,8 s ($P<0,05$) and from 84,7±3,8 to 82,2±31 s ($P>0,05$), in the shuttle run 4x100m - from 87,3±5,3 to 81,7±3,6 s ($P>0,05$) and from 88,5±4,7 to 85,6±3,9 s ($P>0,05$). Of the four tests that determine the level of endurance, the experimental group reliably improved their results in three, and the control group in no test. Moreover, no test revealed intragroup differences between the experimental and control groups. Thus, in the 3 km race, the variation coefficient (CV) in the experimental group was 4.9 and 4,7%, in the control group – 5,2 and 5,0%, respectively, in the cross-country by 5 km – 5,0 and 5,6% and 5,2 and 5,1%. In the 400m race in the experimental group – 18,9 and 16,3%, in the control group – 17,9 and 18,0%, in the shuttle run 4x100 m, respectively – 20,9 and 15,2% and 21,2 and 18,2%. It was found that when performing tests running at 400 meters and shuttle running 4x100 meters, CV in all cases turned out to be significantly higher than in running at 3 km and in the cross at 5 km.

Table 1 – Endurance indicators for schoolchildren of 10–11 grades

Tests	Stat. show.	Experimentalgroup (n = 14)		Thecontrolgroup (n = 16)		$P_{ex..}$	$P_{total...}$
		Baseline	Summary	Baseline	Summary		
Running for 3 km, with	M±m	802,0±11,4	748,3±7,3	809,2±10,6	783, 2±8,9	>0,05	<0,05
	δ	39,4	36,6	42,4	39,6		
	C_V,%	4,9	4,7	5,2	5,0		
	P	<0,05 (Δ=4,2%)		>0,05 (Δ=3,3%)			
Cross 5 km, with	M±m	1553,0±22,2	1325,7±20,3	1642,2±21,3	1612,3±20,5	>0,05	<0,01
	δ	76,8	70,2	85,2	82,0		
	C_V,%	5,0	5,6	5,2	5,1		
	P	<0,01 (Δ=17,2%)		>0,05 (Δ=1,8%)			
Running 400m, with	M±m	85,4±4,7	72,0±2,8	84,7±3,8	82,2±3,1	>0,05	<0,05
	δ	16,2	11,8	15,2	14,4		
	C_V,%	18,9	16,3	17,9	18,0		
	P	<0,01 (Δ=18,6%)		>0,05 (Δ=5,6%)			
Shuttlerun 4x100m, with	M±m	87,3±4,3	81,7±3,6	88,5±4,7	85,6±3,9	>0,05	>0,05
	δ	18,3	12,4	18,8	15,6		
	C_V,%	20,9	15,2	21,2	18,2		
	P	>0,05 (Δ=6,8%)		>0,05 (Δ=3,4%)			

Statistical analysis of the study of the power qualities of schoolchildren of 10-11 grades (table 2) showed that in the test the flexion and extension of the arms in the arm on a high bar significantly increased the results in the experimental group from 5,3±0,4 to 8,6±0,5 times (P<0,01), and in the control one from 5,2±0,5 to 7.3±0,6 times (P<0,05). In the "Lifting a coup" test, the dynamics of the experimental group results for the academic year increased from 2,3± 0,2 to 3,7±0,3 times (P<0,01), in the control - from 1,8±0,1 up to 2,2±0,3 times (P<0,05).

In the push of 24kg weights with two hands, the results in the experimental group increased from 8,1±0,8 to 12,3±1,3 times (P<0,01),in the control groupfrom 7,9±0,7to 8,3±0,8 times (P>0,05). Consequently, if in the first case of three exercises of a power character in three, significant highly significant changes were obtained, in the second case, only in the first exercise with the minimum significant significance (P<0,05).

Table 2 – Force indicators for schoolchildren of 10–11 grades

Tests	Stat. show	Experimentalgroup (n = 14)		Thecontrolgroup (n = 16)		$P_{ex..}$	$P_{total...}$
		Baseline	Summary	Baseline	Summary		
Bending and unbending arms in a high crossbar, count times	M±m	5,3±0,4	8,6±0,5	5,2±0,5	7,3±0,6	<0,01	<0,05
	δ	1,4	1,0	2,0	2,4		
	C_V,%	26,4	9,1	38,4	32,8		
	P	<0,01 (Δ=62,3%)		<0,01 (Δ=40,4%)			
Liftingcoup, counttimes	M±m	2,3±0,2	3,7±0,3	1,8±0,1	2,2±0,3	<0,01	>0,05
	δ	0,7	1,1	0,4	1,2		
	C_V,%	30,4	17,5	22,2	37,5		
	P	<0,01 (Δ=61,0%)		>0,05 (Δ=22,2%)			
Push weights 24kg with two hands, count times.	M±m	8,1±0,8	12,3±1,3	7,9±0,7	8,3±0,8	<0,01	>0,05
	δ	2,8	4,5	2,8	3,2		
	C_V,%	23,0	16,6	25,6	28,3		
	P	<0,01 (Δ=51,8%)		>0,05 (Δ=5,0%)			

A comparative analysis of the data on the variation coefficient of the C_V tests for endurance and strength revealed a difference in individual exercises, so in all the force tests of schoolchildren of the experimental group C_V varied within the first test from 23,0 to 26,4%, in the second from 9,1 to 17,5%, in the control, respectively, from 22,2 to 38,4% and from 28,3 to 37,5%.

The speed was assessed according to the following tests (table 3): 100 m run and 10 x 10 m shuttle run, and strength dexterity - in bending and unbending arms with emphasis on the bars. The results were as follows: during the school year, pupils of the experimental group increased the speed capabilities from 16,3±0,4 to 14,7±0,3 s (P<0,05), while the control group increased from 16,4± 0,5 to 16,0±0,4 s (P>0,05). In the shuttle run, respectively, from 32,9 ± 0,7 to28,0±0,6 s (P<0,01) and from 33,1±0,6 to 30,2±0,5 s (P<0, 05).

And in the test, flexion and extension of the arms with emphasis on the bars (table 3) in the initial state, the indicators of strength dexterity among schoolchildren of both groups did not differ significantly, but at the end of the study in the experimental one increased from 5,6±0,3 to 8,3±0,5 times (P<0,01), in the control - from 5,9±0,3 to 6,5±0,4 times (P>0,05).

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Table 3 – Indicators of power dexterity and speed schoolchildren 10–11 grades

Tests	Stat. show	Experimentalgroup (n = 14)		Thecontrolgroup (n = 16)		$P_{ex..}$	$P_{total...}$
		Baseline	Summary	Baseline	Summary		
Poweragility							
Flexion and extension of the arms in the support on the uneven bars, count times	M±m	5,6±0,3	8,3±0,5	5,9±0,3	6,5±0,4	<0,01	>0,05
	δ	1,04	1,7	1,2	1,4		
	C_V,%	18,6	20,8	20,0	21,5		
	P	<0,01(Δ=46,2%)		>0,05 (Δ=10,2%)			
Rapidity							
Running 100 m, with	M±m	16,3±0,4	14,7±0,3	16,4±0,6	16,0±0,5	<0,05	>0,05
	δ	1,38	1,0	2,4	2,0		
	C_V,%	8,46	6,8	14,6	12,5		
	P	<0,01 (Δ=10,9%)		>0,05 (Δ=2,5%)			
Shuttlerun 10x10m, with	M±m	32,9±0,7	28,0±0,6	33,1±0,6	30,2±0,5	<0,01	>0,05
	δ	2,4	2,1	2,4	2,0		
	C_V,%	7,4	8,6	7,9	6,6		
	P	<0,01 (Δ=17,5%)		<0,05 (Δ=9,6%)			

Findings

The physical preparation of pre-conscription youth for military service on the basis of athletic gymnastics for nine months leads to significant positive changes in the dynamics of the development of basic physical qualities. Of the four tests characterizing endurance, the schoolchildren of the experimental group in three reliably improved their initial level.

Athletic training also led to a significant increase in the power abilities of the experimental group in the test: flexion and extension of the arms in the arm on a high crossbar – by 62,3%, control – 40,4%, in the rise by a coup, respectively, by 60,9 and 22,2%, to the push of 24 kg weights with two hands - by 51,8 and by 5,0%. Speed and speed-power abilities in the 100 m race, respectively - by 10,8 and 2,5%, in the shuttle run 10x10 m - by 17,5 and 9,6%, in strength agility (bending and unbending the arms in emphasis on the bars) – 48,2 and 10,2%.

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DEVELOPMENT OF PHYSICAL QUALITIES OF PRESCHOOL CHILDREN ON THE BASIS OF INTRODUCTION IN EDUCATIONAL PROCESS OF SYSTEM AND GAME APPROACHES

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Abstract. The article reveals the features of pedagogical technology that allows to effectively develop the physical qualities of preschool children with the help of various kinds of outdoor games, based on the introduction of a long-term educational process of the project, developed on the basis of the optimal combination of forms and methods of physical education, system and game approach, the interaction of all participants of the pedagogical process.

Key words: pedagogical technology, preschooler, physical qualities, outdoor games.

One of the first places in a health work practice with children in preschool institutions is occupied by outdoor games. In terms of natural physical activity preschoolers demonstrate their physical abilities during the game, entering into complex relationships with peers. One of the main tasks solved by teachers at the stage of preschool education is to protect the life and strengthen the physical and mental health of children. The content of the educational field "Physical culture", as indicated in the Federal state educational standard of preschool education, is aimed at achieving the goals of developing children's interest and value attitude to their health and harmonious physical development by solving the following specific tasks: the development of physical qualities (speed, strength, flexibility, endurance and coordination); accumulation and enrichment of motor experience of children (mastering the basic movements); formation of the needs of preschool children in physical activity and physical improvement.

To achieve these goals in the system of pre-school educational institutions (PRESCHOOL), sports and health technologies have been developed, which are aimed at the physical development and strengthening of the child's health. Various forms of pedagogically organized activities in pre-school educational institutions are aimed at the implementation of these technologies in practice. Regime details, walks and outdoor games in fresh air are carried out by physical culture instructors of preschool institutions in accordance with the age characteristics of children and in contact with teachers and parents of preschoolers. The outdoor games are important means of physical education of the preschool child.

One of the meanings of the game is to achieve its beneficial effects on the formation of motor skills and education of the child. The value of mobile games in physical and mental development of the child emphasized in the works of E. N. Vodovozova, P. F. Kapterev, etc. the Largest scientist-teacher P. F., Layshaft developed the theory and methods of mobile games as a valuable means of educating the individual. In the literature on the theory and methodology of physical education and development of a child of preschool age (E. N. Vavilova, V. G. Grishin, T. I. Dmitrenko, L. V. Karmanova, T. I. Osokin, etc.) noted that the game in the fresh air will allow the child to learn a variety of fairly complex activities, to show independence, activity, creativity. Outdoor games improve the feeling of muscle strength, sense of space, orientation in time. Technologies of formation of physical qualities of children of preschool age as a basis of their physical and mental development are affected in a number of works of scientists of teachers only fragmentary. In connection with the above, the relevance of the development of existing technologies and the search for new methodological methods of using games as means of forming the physical qualities of preschoolers is obvious. A comprehensive analysis of scientific and methodological literature and pedagogical experience of physical education in the DOW allowed to formulate the following contradictions:

1. Between traditional methods of physical education and innovative processes in preschool education;

2. The importance of the development of physical qualities of preschool children as the basis of their physical form and the lack of an integrated approach to the organization of physical education of preschool children;

3. The need to develop and search for new methodological approaches to the use of games in the development of physical qualities of older preschoolers as the basis of their physical form and fragmented coverage of this topic in the scientific and pedagogical literature.

The resolution of these contradictions is possible as a result of the use of such technology, which will effectively develop the physical qualities of preschool children with the help of various kinds of outdoor games, through the introduction into the educational process of the project, developed on the basis of an optimal combination of forms and methods of physical education, system and game approach, the interaction of all participants in the pedagogical process, including teachers, medical staff of preschool and parents. Implementing in practice the use of this technology, it is necessary to solve the following pedagogical problems: 1. To determine the features of the development of physical qualities in older preschoolers. 2. Develop and test the project of development of physical qualities of preschool children in kindergarten "Razvivaika". 3. Experimentally confirm the effectiveness of the developed technology by monitoring the level of development of physical qualities in preschool children. 4. To develop practical recommendations for the participants of the educational process.

A comprehensive analysis of the results of the implementation of the educational process of the project "Razvivaika". allowed to identify pedagogical conditions for the development of physical qualities of children of preschool age by means of systemic and game approaches: - to improve the quality of motor activity, it is neces-

sary to choose a suitable system of special exercises, each series of exercises should reflect the characteristics of motor coordination of a child of a certain age; - at the same time it is not recommended to develop both strength and flexibility, strength and speed, agility and flexibility in one lesson. The maximum effect of the exercises, as well as the best indicators of dexterity associated with a more subtle manifestation of coordination and accuracy of movements are achieved by students in the first half of the lesson; - the objectives of the educational process determine the choice of methods and techniques of training, for example, the method of exercises of different intensity is used to improve the overall level of physical development, relay races using outdoor games is especially important to use in preparation for participation in various competitions; - significant influence on the choice of methods and means of training also has the specifics of the development of coordination of movements of preschool children, for example, a series of monotonous motor actions (repetitive load method) is used to achieve a certain degree of fatigue, the method of separate training in combination with the allocation of the main phase of each motor action is used to improve accuracy and accuracy of movements; - outdoor games attract children with the opportunity to apply their knowledge and skills to solve a specific motor problem in the developing game environment. Outdoor games contribute to the versatile physical development of the child, in the framework of the project "Razvivaika". they are classified: by type of basic movements; walking and running; jumping; with the ball, as well as orientation in space. Relay races, competitions and competitions contribute to physical education, the development of physical qualities (agility, speed, etc.), provide comprehensive development of the child's personality; increase endurance, perseverance, determination, courage, discipline, initiative, independence, creativity.

Summing up the results of the work done for the effective development of physical qualities of preschool children through games based on the introduction of the educational process of preschool long-term project "Razvivaika", we can draw the following conclusions. 1. The development of physical qualities occupies an important place in the physical education of preschool children. Practice shows that many children can not achieve good results while running, jumping, throwing, not because they have not formed the technique of movement, but mainly due to the lack of development of the basic motor qualities - strength, speed, endurance, flexibility. 2. There are certain conditions under which motor skills and motor abilities of the child are formed. Dialectical unity of form and content of motor action is manifested in the ratio of motor skills and physical qualities. The universality of the reflex mechanism of these two processes explains their indissoluble connection. Parallel development of motor skills and physical qualities will contribute to the harmonious development of the child's body and is one of the necessary conditions for this process. 3. Developed and implemented the project " Razvivaika"0, which allowed to realize the idea of development of physical qualities in children of preschool age with the help of gaming tools on the basis of a systematic approach, in which relatively independent components of the pedagogical process of development of physical qualities of preschool children are considered as a set of interrelated parts: goals, subjects (employees of PRESCHOOL, parents and preschool children), content, methods, forms, means of physical education, etc. The changing playing environment allows children to directly use their knowledge and skills to solve a specific motor problem. Outdoor games, especially with elements of competition, develop and improve such motor qualities as strength, agility, speed and endurance. Games promote versatile physical development of the child, in the project they are classified by types of basic movements; with walking and running; with crawling and climbing; with Bouncing and jumping; with throwing and catching, as well as games on orientation in space, etc.

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SWIMMING TRAINING FOR THE DEVELOPMENT STATOKINETIC SUSTAINABILITY STUDENTS

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Abstract. The study examines the role of the static-kinetic stability of the future pilot to ensure safety in civil aviation. Effective means of swimming training to improve stat kinetic stability have been developed. The results obtained in the work allow to increase the resistance to motion sickness and thereby reduce the risk of adverse manifestations of aerobatic overload on the human body. The author proves that the improvement of stat kinetic stability is one of the promising directions in the prevention of motion sickness of flight personnel, especially on the eve of the creation of a new generation of aircraft.

Key word: pilot, stat kinetic stability, civil aviation, student, swimming, motion sickness, aerobatic overload.

Introduction. The relevance of the study of statokinetic stability was and remains quite high. A significant number of works are devoted to the study of the effect of vestibular irritations on the human body [1-6].

In professional aviation activities statokinetic stability has the particular importance. Loss of pilot spatial orientation leads to 35% of accidents and catastrophes in aviation [1]. The rapid development of aviation technology in the twenty-first century, especially the appearance of high-tech civilian aircraft (the Il-114, IrkutMS-21, Il-96, SukhoiSuperjet 100), led to the fact that in the system "man-aircraft-environment" man has become the weak component.

Currently, additional attention to the effective training of civil aviation specialists is of particular importance in connection with the following situation:

-the relentless deterioration tendency of aviation universities students health is noted;

- growth of the requirements imposed by highly maneuverable aircraft to the state of the flight crew health and statokinetic stability;

- significant "rejuvenation" of flight crew, having various chronic diseases.

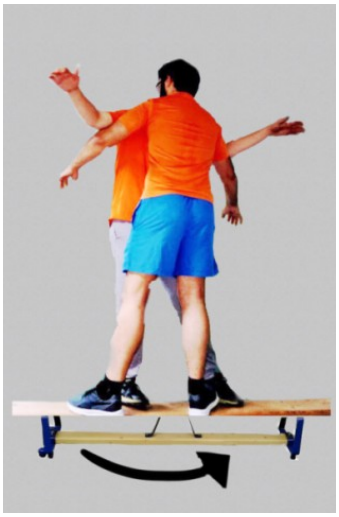
Sports enhance physical fitness and functional development of the locomotorsystemwhich is directly related to the balance system, the reliability of which determines the professional performance [2,6]. Special balance exercises, including swimming training facilities, provide high statokinetic stability [4,5].

The aim is to develop a set of effective exercises in sports swimming for the development of statokinetic stability of University students.

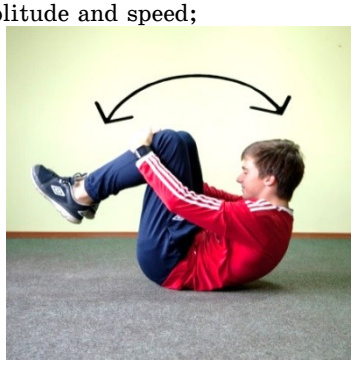
Methods and organization of studies. The experiment was conducted at the St. Petersburg state University of Civil Aviation with students of 1-3 courses, enrolled in the course «Air navigation» in the specialty «Flight operation of civil aircraft». The following methods were used: theoretical analysis, survey, testing and method of statistical analysis. Physical education classes in experimental (EG) and control groups (CG) were held in accordance with the program of the Ministry of Transport of the Russian Federation, the Federal Air Transport Agency (Rosaviatsiya). Training in CG was carried out according to the standard training program of the new generation 3+, in EG — with an emphasis on the development of statokinetic stability using swimming training. Testing was carried out before the experiment, then after 6 months of training (before flight practice). A total of 50 classes were held using the proposed tools and methods.

Results and discussion. On the basis of scientific and methodological literature, our own practical experience of swimming training, we have developed a set of exercises in sports swimming for the development of statokinetic stability of students (rice. 1-3), including:

- simulation exercises on the technique of all methods of swimming: movement of arms, legs and torso in accordance with breathtaking;
- special swimmer exercises without items;
- exercises with partner resistance, rubber shock absorber, block;
- circular movements and turns of the head, standing on one leg; circular movements of the hands, circular movements and turns of the head while maintaining balance in walking, jumping, running;
- torso turns right and left in a forward tilt; the same two, holding hands, turns in a squat (90˚-180˚); jumping on the spot with turns right and left 180˚,360˚;



- somersaults forward, backward, with turns, jump over an obstacle. Rolls forward and backward with changes in amplitude and speed;



• walking on the bench with throwing and catching the ball, on the toes, step, with turns around, cross step. Walking: half squat, the squat; the squat position sideways; squat with twists and turns around, walking steps through various obstacles;

• walking on the bench with throwing and catching the ball; with the ball hitting the floor and catching it after the rebound, the divergence of the two on a narrow area of support.

• keep your balance by standing on the stuffed ball and turning to the sides;

• jumping over a stuffed ball, stepping over the ball. Exercises with a partner – twisting, somersaults together, exercises on the simulator bosu balance trainer.

• swimming legs with a board in his hands with the implementation of the breath left and right;

• swimming crawl with «overtaking». Inhalation is performed under one hand. Swimmingcrawlonthechest-with «substitution». The number of strokes left (right) hand increases to six. Swimmingcrawlonthechestonthe «clutch». The breath is done under each hand. Swimming crawl on this chest with shoulder blades for hands, in flippers with a tube. Swimming crawl with breathing in both directions in each cycle of movements;

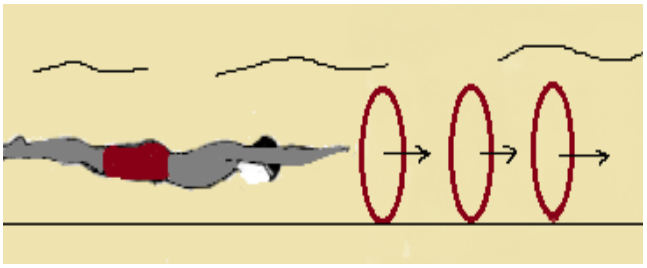
• special way of swimming style crawl with rotation around the longitudinal axis of the body, with each stroke 180° rotation around the longitudinal axis of the body;

• performing somersaults (turns) in the water forward (back);

• swimming with the rubber shock-absorber for 3-5 min way to «crawl on the chest» by stretching the shock absorber;

• swimming with a crawl on the chest «on the elbows», swimming with a crawl on the chest with accelerations.

Comparative analysis of the results indicates significant changes in the statokinetic stability of students in EG (table).



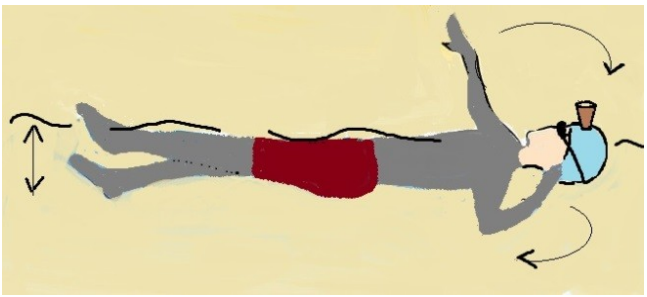


Table 1 – Dynamics of parameters of students' statokinetic stability

Testperformance	Group	Statistical indicators in the course of the experiment(M±δ)		t	p
		Beginningoftheexperiment	The end of the experiment		
Sample Romberg, option – stand on one leg, sec	EG	12,8±0,7	16,8±0,8	3,77	< 0,01
	CG	12,9±0,6	14,8±0,7	2,07	< 0,05
TestYarotsky, sec	EG	15,3±0,6	25,8±0,6	12,3	< 0,001
	CG	15,5±0,7	17,4±0,7	2,22	< 0,05
Fukuda stepping test, the displacement in cm	EG	50,3±1,9	32,7±1,7	6,90	< 0,001
	CG	51,3±2,0	50,7±1,9	0,22	>0,05
SampleBiryuk, sec	EG	15,5±0,7	22,8±0.9	6,49	< 0,001
	CG	15,9±0,7	18,0±0.8	1,98	<0,05
Menshikovtest, points	EG	3,7±0,2	4,6±0,3	2,50	< 0,05
	CG	3,5±0,2	4,0±0,3	1,39	>0,05

Reliable positive dynamics results of dynamic statokinetic stability was noted in the Yarotsky sample, Fukuda, Menshikov tests, in CG according to the tests was noted the low reliability. In the EG participants achieved significant improvements in static stability statokinetic: sample Romberg, Biryuk sample, in CG shifts can be placed on a false level.

Conclusion. Swimming increases the stability of the vestibular apparatus, as the work in the aquatic environment greatly complicates the process of motion control. Training in swimming effectively develops the vestibular apparatus not only due to the turns of the head when swimming in the way of the crawl on the chest, as well as under the influence of cold stimuli.

The data obtained in the course of the study allow us to talk about a sufficiently high efficiency of the developed methodology for the development of statokinetic stability in students by measures of swimming training.

1. The study from the standpoint of system-structural analysis revealed the leading professional abilities for the successful mastery of flight skills – it is primarily the statokinetic stability, it is the leading flight quality of the aircraft.

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UDC 378

THE ROLE OF CLASSES ELECTIVE COURSES IN PHYSICAL CULTURE IN THE FORMATION OF A HEALTHY LIFESTYLE OF STUDENTS

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Abstract. The article presents an assessment of the role of classes in elective courses in physical culture in the formation of a healthy lifestyle among students. The process of forming a healthy lifestyle causes the greatest problems for students. This is due to high training loads. However, it is classes of elective courses in physical culture that can contribute to the formation of a healthy lifestyle for students. Elective courses involve physical education just for the chosen field of sport. The following various types of elective courses in physical culture are presented in the universities of the Russian Federation.

Key words: healthy lifestyle, physical culture, physical self-education, daily regimen, physical activity, physical health, mental health, elective courses.

Half is one of an indispensable criterion for the development of society as a whole. A special emphasis should be placed on the physical health of the younger generation, particularly to the students' one.

It should be noted that the students' standard of health is quite low, and one of the higher education institution's tasks is to improve the one.

The programme is based on a holistic concept which views health as the general state of physical, mental and social well-being in all aspects related to the social welfare, and ensures the implementation of labor, biological and social functions.

Physical health - it is a condition of organism, which is characterized by normal functioning of organs and systems of a human being. The mental health is determined by the condition of the brain, central nervous system and also could be defined by the next parameters: thinking, attention, memory and the degree of emotional stability [3].

The moral health, which is defined by moral principles relevant to the life of the human person is no less important.

The "practically healthy person" conception has arose in connection with the functional approach to health.

With regard to the students' lifestyle and its influence on health, there were the mass of problems that have a negative impact on the students' health.

So, the fact that the students are different, they have the diferrent attitude to life and different priorities, the focus on a healthy lifestyle is different therefore.

Based on the results of the analysis of the factual information concerning students' vital activity, it may be concluded that their life is badly organized and hasn't an efficient organization, i.e. all in complete randomness and chaos.

This lifestyle is a reason of the next negative impacts: not systemic food rations; lack of sleep, that becomes systematic; the turnaround time to get some air; decreased motor activity; failure of the tempered of organism procedures; various forms of abuse [4].

Thus, there is no rational time management due to the educational process, nutrition, rest and sleep. It is necessary to hold events that will promote the formation of a healthy lifestyle among students.

The mental and physical health of the younger generation depends on these activities.

The student's healthy lifestyle depends on the system of values, worldview, social experience, ethical criteria.

Obviously, that the desire to make a change for the good is also characterized for a student with a high level of personal development, as well as a desire to change the environment. Chosen sport classes promote increase of motivation, expansion of a circle of acquaintances, acquisition of the new knowledge.

To form a healthy lifestyle, a student needs to know the basic components:

1. regime of labour activity and rest;
2. the corect sleep schedules;
3. The organization of systematic and healthy nutrition;
4. The organization of motor activity;
5. implementation of hygienic requirements;
6. application of the forms of conditioning;
7. prevention activities for letting go of bad habits
8. . the formation of a culture of interpersonal relationships.

Giving an option to a student allows increase the motivation and desire to play sports.

It should be noted that the choice is made due to the doctor's recommendation, by taking into account chronic diseases and medical contraindications, which also assist to improve the students health.

The increasing of self-discipline level, the level of physical fitness are observed during the classes according to the program of elective courses, and the psycho-emotional state of students changes significantly in a positive direction. [1]

Physical self-development is a process of purposeful, conscious and systematic endeavour at self-improvement work. Physical self-education is designed to shape a physical personality.

Self-education contributes to the acceleration of the process of physical education, as well as consolidates and

improves existing physical skills. To realize self-education, the student must be strong-willed person. [6]

To realize physical self-education the next motives may be applied by a student:

1. Modern requirements of social life and culture of the society;
2. The presence of claims for recognition in the team and the possession of a certain social status;
3. The awareness that their own forces do not meet the existing social and professional requirements;
4. Criticism and self-criticism, which allow to identify their own shortcomings.

Physical education is consist of a number of process steps

The first step - is fundamental to knowing your own personality. Self-knowledge is carried out by the following methods: self-analysis, self-assessment, self-observation.

Self-knowledge gives an opportunity to conduct systematic observations based on the selected criteria for the qualities and properties of the individual.

Thus, self-knowledge influences the choice of an elective course with a consideration of own needs and physical abilities. [2]

Self-evaluation is the most difficult and controversial method, as the one can be overestimated, understated, inadequate, which can provide inaccurate information.

The purpose and program of self-education are determined on the basis of self-characteristics at the next stage.

To make a personal plan is further. At the 3rd stage of physical self-education, the practical implementation takes place. [5]

Thus, the process of physical self-education is not simple set of actions.

But the implementation of this algorithm will contribute to the formation of a students' healthy lifestyle.

Physical education and sports actively contributes to the formation of a healthy lifestyle for students due to the program of elective courses.

It is necessary to form students' conscious attitude to the lifestyle.

The implementation of physical self-education is one of the conditions, which allows students to form a conscious attitude for the own health and, to a certain extent allows to keep one for a long time, by taking into account the preferences in specific sports.

The ability to choose an elective course forms student's conscious attitude to physical culture and his physical and physiological states.

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FUNCTIONAL, PHYSICAL AND TECHNICAL PREPARATION OF UNIVERSITY STUDENTS AT THE STAGE OF INITIAL TRAINING TO TENNIS

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Abstract. A comprehensive survey of 32 female students of the age of 17-23 years old who had been studying for six months in the group of sports improvement in tennis at the Department of Physical Culture and Sports of Yaroslavl State Medical University was conducted. The data of functional tests indicate an improvement in the level of fitness of the cardiovascular system of the subjects, the indicators of physical fitness reflect an increase in their speed and strength endurance. The technical level of female students has increased in the effectiveness of strikes; in the submission – the results remained unchanged, therefore, the development of this technical element should be given more time and attention in the initial training in tennis.

Key words: medical students; functional, physical and technical training; tennis; initial training.

Introduction. The problem of studying the structure of physical and technical preparedness of tennis players, assessing the level of formation of basic skills and abilities, which are trained at the initial training stage, attracts the attention of specialists [3-5, 8]. It is emphasized that for tennis players of each age it is advisable to monitor physical fitness more than twice a year, which in turn allows for a correction in the training process in order to optimize it [3].

The purpose of the study is to analyze the dynamics of the functional, physical and technical training of female students during six months of classes in the group of sports improvement in tennis.

Methods and organization of research. Within six months (months) of the 2018-19 academic year, the Department of Physical Culture and Sports of Yaroslavl State Medical University (YSMU) conducted a comprehensive survey of 32 students aged 17-23, engaged in the group tennis sports improvement.The frequency of classes 3 times a week: for physical training (PhT, 2 hours, h) or for physical culture and sport (2.5 hours), – in the tennis section (1.5 hours) and independent PhT (1 hour).Functional tests (Shtanga, orthostatic, Martine-Kushelevsky) of the state of the cardiovascular system (CVS) [1, 2], PhT and technical preparedness tests from the tennis sports training program for children and youth sports schools were conducted Olympic reserve [6]. PhT was evaluated by the results of running 50 meters, running 50 meters from a difficult position, long jumps and upwards, throwing a tennis ball with the movement of a pitch, catching a stick, technical readiness for bounces from a rebound, right and left rally, feeds in the 1-st and 2-nd square.Quantitative data were processed by the method of variation statistics, the significance of differences was judged by the value of Student's t-test. The study was approved by the ethics committee of YSMU.

Results and its discussion

According to the data of the Stange test, the time of an arbitrary breath hold in the subjects increases at the end of the sixth month to 63.1±0.9 seconds (*s*) (compared to 59.9±1.2 *s* at the beginning of the observation; $p<0.01$).It should be emphasized that with the improvement of physical fitness of athletes in adapting to motor hypoxia, the breath-holding time increases, which indicates the beneficial effect of training on the degree of oxygen absorption by the blood, increasing its reserve in the tissues and on the volitional factor, indicating the body's ability to be in a state of hypoxia [1, 7].In addition, the indicators of the sample characterize the state of the regulatory mechanisms of the CVS, and can also serve as a selection criterion when conducting tests with significant physical activity [2].

The reaction to the orthostatic test (Table 1) for female students was an increase in the heart rate per minute (*min*) at the beginning by 11% and by 9.5% at the end of the observation. Systolic blood pressure (SBP)did not change, and diastolic (DBP) increased after the test.Pulse blood pressure (PBP) (the difference between the SBP and DBP), indicating the stroke volume of the heart, decreased at the beginning of the semester by 18%, at the end of observation – by 16%, with an acceptable level of reduction to 35%.The answer to the orthostatic test of students corresponds to the level of trained athletes [2].

The Martinet-Kushelevsky test (Table 2) recorded an increase in the pulse rate after the load at the beginning and end of the study.

The excitability of the pulse (the percentage of increase after the load) decreases from 29% to 25% at the end of the experiment, which is an indicator of the rational work of the CVS [1, 2]. The recovery time of the pulse is reduced after six months, which indicates an increase in the fitness of CVS among female students in the tennis section [1, 6].According to the center of sports medicine at Lexington Clinic (Kentucky, USA), in such a physically challenging sport like tennis, in the initial preparation of a player, it is necessary to develop cardiorespiratory endurance [8].

An increase in the SBP after the standard load by 12.4–12.9% and a slight decrease in the DBP are shown. At the same time, the PBP increases by 40–36%, which corresponds to a rise in the excitability of the pulse by 29–25%. The obtained indicators have positive dynamics and correspond to the normotonic type of the response of the CVS to the load [1, 2].

The results of AF were carried out according to special tests [6] (Table 3).

Indicators of PhT positive results indicate an increase in speed and strength endurance after six months of training in the group of sports improvement. The acquisition of these qualities is of utmost importance for beginning tennis players [8].

The state of technical preparedness of female students was assessed using some elements of the game (Table 4). At the end of the observation, improvements in the performance of the strikes were revealed.

The largest increase was recorded in the kick from the rebound to the right, the smallest - in the kick from

the rebound to the left.The submission did not show positive dynamics of the results; therefore, it is necessary to devote more time and attention to working out this technical element in the course of training in the section, as well as to use modern training methods in primary tennis training [4, 9].

Individual studies address the role of primary students' tennis training in health and university education. Scientists at Louisiana State University, observing 90 students in primary tennis classes during the semester, showed a positive effect of training on thinking, performance and concentration [11].76 students of Kocaeli University (Turkey), who performed 90-minute basic tennis lessons for 13 weeks, showed not only a significant increase in playing skills, but also an improvement in psychological well-being and well-being [12].Noteworthy is the data obtained on 106 beginner athletes, indicating that the game of tennis is associated with the development of three main aspects of the executive function (brake control, working memory, cognitive flexibility) [10].

Findings

1. At the end of the semester, the functions of the cardiovascular and respiratory systems improved among female students engaged in the group of sports perfection in tennis.
2. The level of physical fitness and fitness of female students involved in the group of sports improvement in tennis, is increasing.
3. The technical preparedness of female students improves after six months only in rebounds and rebounds; in the presentation - the perfection of skills is not marked.

Table 1 – Orthostatic test according to Schelleng, M±m

Indicator / **Time**	**BPlying down**		**BPstanding**		***Ps*** **lying down**	***Ps*** **standing**	***T***
	SBP	DBP	SBP	DBP			
09.2018	120,1± 2,2	70,3±1,3	120,2± 2,3	79,4± 3,3^	80,3± 0,9	89± 0,8^	102,9 ±1,1
02.2019	117,2± 2,5	73,6±1,4*	117,5± 3,1	80,6± 2,7*^	79,1± 1,0	86,6± 1,1*^	98,2 ±0,9*

Notes:*BP - blood pressure (SBP - systolic, DBP - diastolic) in mm. Hg pillar; Ps - pulse (beats per minute); T - recovery period (s); * - significance of differences at the end of observation with respect to the beginning; ^ - significance of differences in the prone position and standing: p <0.05;*

Table 2 – Martine-Kushelevsky Sample, M±m

Indicator / **Time**	**BPat rest**		**BPafter 20 squats**		***Ps*** **at rest**	***Ps*** **after 20 squats**	***T***
	SBP	DBP	SBP	DBP			
09.2018	123,6± 2,3	78,4± 0,9	139,5± 3,1^	76,2± 1,2	83,7± 2,4	107,3± 3,3^	157,3± 3,5
02.2019	120,7± 1,9	74,5± 1,3*	135,6± 2,7^	74,3± 1,5	81,2± 3,2	101,4± 2,8*^	138,4± 2,3*

Note: ** - significance of differences at the end of observation relative to the beginning; ^ - the significance of differences at rest and under load; p <0.05.*

Table 3 – Physical fitness of female students, M ± m

Test / **Time**	Running 50 m (s)		Jump, sm		Throw a tennis ball, m	Shuttle run 6 to 8, s	Fishing stick sm
		from a difficult position	up	in length			
09.2018	6,67± 0,04	7.39±0,03	36,5±0,2	185,4± 0,2	18,9±0,3	37,55± 0,03	10,3±0,2
02.2019	6,51± 0,03*	7.04±0,02*	39,9±0,4*	186,3± 0,3	20,4±0,3*	35,42± 0,02*	9,4±0,3*

Note: ** - significance of differences at the end of observation relative to the beginning; p <0.05.*

Table 4 – Technical readiness of female students, M ± m

Test / Time	Blow, m				Feed of 10	
	with a bounce to the right	with a rebound left	since summer on right	from the summer left	in 1st square	in the 2nd square
09.2018	21,1±0,2	18,8±0,2	12,4±0,2	9,1±0,1	6,4±0,2	6,3±0,1
02.2019	26,4±0,1*	20,3±0,1*	17,8±0,1*	12,6±0,1*	6,1±0,1	6,2±0,2

Note: ** - significance of differences at the end of observation relative to the beginning; p <0.05.*

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UDC 378

GAME AND PLAYING ACTIVITIES IN THE DEVELOPMENT OF THE CREATIVE ABILITIES OF CHILDREN OF 10–12 YEARS IN THE PROCESS OF WORKING WITH THE PHYSICAL CULTURE

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Abstract. The article is devoted to the study of issues that determine the development of methods for the development of creative abilities in children aged 10-12 years based on the use of mobile and sports games.

Key words: game, game activity, outdoor games, sports games, physical development, physical education lesson, mental activity, creative abilities.

Urgency. An important factor in the harmonious and comprehensive development of children and adolescents is their play activities. In the physical education of the younger generation are of special significance mobile and sports games, which feature is active, which contains all the main types of movements. The wide popularity of the game as a means of educating young people is due to the simplicity of the rules of the game and their variability. Physical exercises, which are the basis of game actions, are simple and natural. Sports and games provide an opportunity for students to demonstrate imagination, initiative, will and many more [3].

Movements give a person the opportunity to realize their own biological needs, to study and change the world around them. Movements are important for the all-round development of a person: mental, physical and mental. The individuality of a person is also formed largely due to movements, as a result of the harmonious development of personality [6].

In Russia outdoor games were extremely popular. They were applied as the most effective means for physical development of the person. Children and young people were brought up with the use of outdoor games, such as running, jumping, swimming, horse riding, etc. [1].

Thus, we see that outdoor games have long been widely used in the preparation of children and young people for work and the successful performance of military duties.

One of the most important features of sports games is a large number of participants. Outdoor games have a comprehensive impact on the physical form of children and adolescents. Thanks to them, motor skills are improved, the body functions smoothly, physical qualities are improved in General [3].

Due to these features, outdoor and sports games are used not only as an effective means of physical education, but also as a tool that has a significant impact on the formation of mental, ethical and moral qualities of the individual.

A number of researchers note the positive impact of physical education on the mental performance of students. "The game is important in the life of a child, the same as in an adult activity, work, service" (A. S. Makarenko). The game keeps huge educational opportunities in the period of childhood.

Studies of A. A. Suchilin and V. I. Kozlovsky show that systematic sports activities contribute to health promotion, physical development of schoolchildren, have a positive impact on their organization and, possibly, on academic performance. The process of thinking is inseparable from the activity of personality. Even in ancient times it was known that the movement contributes to the process of thinking. Aristotle created the school of peripatetics, or "walking". He spent in her lessons on the walk along with students. The peripatetics say that the hot walk the body makes the idea very much. And I. M. Sechenov noted that observations are the source of the origin of thought, referring to the sensory knowledge of the world around the child. The basis for the emergence and growth of higher logical forms of knowledge are elementary forms of knowledge – practical actions of the child, including motor actions.

The study of the development of the emotional sphere of children clearly reveals the complexity of the nature of feelings and emotions experienced. The emergence of feelings is due to communication with others and the implementation of socially useful works. Feelings are born in the process of joint activities with other people and affect its implementation. To be stable in their emotions, proactive and creative person to help clearly defined purpose and the results.

When children begin their educational activities, the focus of their interests changes significantly. Depending on the number of conditions in schoolchildren appear and entrenched educational interests. One of them is the lessons of physical culture game orientation. Organization of a variety of gaming activities of pupils on the lessons of physical culture based on their activity, reasonable autonomy and creative initiative, could contribute significantly more to the effect of forming the main core of personal qualities to provide a positive academic performance than that which is achieved directly by the school [1].

Sports games, in addition to the impact on the physical form of the student, are a powerful stimulant of thinking. This is due to the fact that the player must act at lightning speed during the game, and after its completion to analyze in detail their maneuvers and compare their performance with the record and desired. This process is made possible by creative abilities, based on which students are able to comprehend their actions in the game. After reviewing the works of scientists studying the process of thinking, we concluded that they all hold close to each other views on what is the nature of the thought process [2, 3, 7]. Their work reveals the essence of the process of thinking, which is to realize the difference between the human expectation and the reality of the situation in which he is, as well as the search for solutions, how to get the best result. It is important to note that the mental activity that occurs in humans di-

rectly in the game, different from the “higher thinking”. Rather, it is “operational thinking”, which in its essence can be described as “action thinking”, where the signal system is of secondary importance [5].

Thinking through actions means processing information in such a way that it is followed by actions that best contribute to the achievement of maximum results by schoolchildren in physical education lessons. Here are a few more terms that a number of authors characterize the ability of students to make the right lightning-fast decisions directly in the game activity: "forms of mental activity of the subject in a problem situation", "situational orientation", "game orientation" [2]. The process of orientation is conventionally divided by specialists in sports games and psychology into three parts: Executive, indicative and control.

Any activity on orientation, in particular, game thinking are based on the principle of “advanced reflection” of the events of the world. In the case of an unusual situation or lack of information, there is an incomplete indicative basis for action. Based on the above, it is advisable to identify the factors:

– allocation of creative abilities directly in the game activity as dominant;

– an acute lack of time for orientation and action without a full-fledged indicative framework.

Some authors are of the opinion that the above features are implemented directly at the stage of solution preparation, when perception and afferent synthesis of information is carried out [7]. In order for the work of physical education teachers and other specialists in this field to be more effective, efficient and useful, it is necessary to work purposefully on their professional knowledge and skills. In this case, the use of programs created for training and skills development is considered to be extremely effective [1].

On the use of games in human development as a whole conducted a lot of research. However, today the issues of formation of creative abilities of schoolchildren with the help of games and game exercises are not sufficiently developed. The value of the game is that it is not only the most attractive in its impact pedagogical means, it also has a complex effect. But at the same time, the versatility of the impact does not prevent the selective use of games. A special value of the game practice is the formation of creative abilities that ensure the adoption of unexpected but balanced decisions. Once in a problematic situation, where before you act, you need to answer the question: "What and how to do not to lose", the child learns the basic techniques of mental actions, suitable for all occasions. All this leads to the conclusion that the game has a special place in human development. Being essentially a brain activity, the game activates the functional activity of the body and becomes a powerful factor in the intensive development of creative abilities of the child. This, of course, deepens the positive effect of using the game and gaming activities in education [3].

So, based on the above data, we have the following research goal: to develop and experimentally justify the method of development of creative abilities in children aged 10-12 years on the basis of the use of mobile and sports games. Based on the purpose, the hypothesis of the study: it was assumed that the education of creative abilities in schoolchildren 10-12 years can be more effective in the use of educational and pedagogical process of means of mobile and sports games, which will contribute to the strengthening of their health and will allow them to increase not only the level of physical fitness, Direct research tasks in the work were:

1. Identify quantitative and qualitative characteristics that determine the composition of motor actions of students 10-12 years to determine the theoretical and practical approaches to the development of creative abilities.

2. To develop a methodology for the development of creative abilities in children aged 10-12 years in secondary school on the basis of the use in the educational process of means of mobile and sports games.

3. Experimentally justify and verify the effectiveness of the developed methods in the physical education of students.

To solve the problems it is necessary to use the following research methods: generalization of literary sources and theoretical analysis; pedagogical observation

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INTERRELATION OF LEVELS OF DEVELOPMENT OF EDUCATIONAL MODULES AND PHYSICAL FITNESS AT STUDENTS OF THE MEDICAL UNIVERSITIES

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Abstract. The approved technique of development of common cultural competences by students of medical school of the section of physical activity was characterized by development of professionally focused skills and abilities. Identification of the priority directions on formation of skills of application of means of physical culture in prevention of diseases, allowed to formulate the maintenance of educational modules conceptually. Studying of level of development of a technique of application of means of physical culture in professional activity of future doctors was the main objective of a research. Applying results of the questionnaire in block option; the block of questions determined by the first the level of knowledge the morfofunktsionalnykh of changes of an organism in the course of motive activity, the second – level of proficiency in modern improving technologies and the third – defined ability to effectively apply means of physical culture and sport in prevention of diseases. These indicators are determined by each block of questions at students of 1 – 6 courses.

Key word: Students, professionally-applied physical education, motor activity, healthy lifestyle.

Relevance of the study. The modern system of physical education in medical school is inextricably linked to the future professional activity of a physician [1]. The competence of a specialist doctor is determined not only by the possession of professional knowledge and skills, but also by the ability to apply health-improving technologies in the prevention and rehabilitation of diseases, to determine the development of maladaptative reactions of the body to an inadequate load [5,6,7,8]. The Federal state educational standard 3+ of higher medical education defines the extensive list of the theoretical knowledge and practical skills which form competence including health-improving technologies [3]. The development of the content of educational modules on the subject "Physical Education" in medical educational institutions requires an appropriate analysis of the results of the development cultural and professional competencies by the students [2]. Building skills disease prevention of diseases through the physical culture will significantly improve the qualification characteristics of medical specialists [4]. Modern health technologies have a high degree of development, this is especially in the use of specialized high-tech engineering equipment [9,10]. According to this, it is important to consider adjustments to the educational modules on the subject "Physical Education" in medical schools on the basis of the revealed level of students' knowledge of technologies for the prevention of diseases by means of physical culture, as well as the development of modern rehabilitation programs.

Organization of theresearch. We have analyzed control standards and results of theoretical tests of 527 students (185 boys and 342 girls) of I – VI grades of the basic medical group of Astrakhan state medical University within the framework of mastering the requirements of Federal State Educational Standards 3+. During the work we used the software package for statistical analysis Statistica 10 (Stat Softinc. USA). The research was conducted on the basis of Astrakhan state medical University in 2017/ 18 academic year.

Research methods: analysis of scientific literature according to the theme of the research, control standards, the results of theoretical tests, methods of mathematical statistics.

The results of the study and their discussion. As a result of the study, lists of theoretical tests were formed (each block includes 10 tests); the first block of tests allowed to determine the level of knowledge of morphological and functional changes in the body by the influence of regular classes of different types of motor activity, the second list of questions allowed to identify the level of knowledge of modern health technologies and the third block contained questions which determine the ability of effectively use physical culture and sports in the prevention of diseases. The ranking of the assessment of questions according to their importance was determined as follows: 4.0 points were estimated issues related to the development of skills and abilities of the use of physical culture and sports in the prevention of diseases, 4.5 points were estimated questions of knowledge of modern health technologies and 5.0 points corresponded to the morphological and functional changes of the body in sports. The total result was calculated on the basis of the corresponding coefficient for each answer, which allows to determine the level of development of educational modules.

In the first block of tests, the student could score a maximum of 40 points, in the second – 45 and in the third – 50, the total result was 135 points. The methodology of calculations of levels of skills of application of means of physical culture in medical practice, was to determine the integral indicators of the studied components that characterize the development of qualification requirements for medical professionals.

The best average results of theoretical tests were determined among the students of 3 - 4 courses, scored a total of 97.7±7.1 points, the second result with 95.1± 6.7 points was showed by the students of 5 - 6 courses and the lowest number of points scored by students of 1 - 2 courses - 75.5 ± 5.9 points. In the first block of questions, students of 3 - 4 courses scored the highest number of points – 31,8 ± 3,0, the second result 30,2± 3,2 points was determined among the students of 5 - 6 courses and 28,2 ± 3,3 points were shown by students of 1 - 2 courses. In the second block of questions were lead-

ing students of 3 - 4 courses with a result of 35.5± 4.1 points, the second result was recorded in students of 5 - 6 courses – 30.3± 2.9 points, the smallest number – 23.2 ± 3.0 points scored students 1-2 courses. In the third block of questions the best indicators were determined in students of 5 – 6 courses – 34.2± 4.1 points, the second indicator was determined in students of 3 – 4 courses 30.4 ± 3.3 points and the lowest number of points – 21.4± 2.5 students scored 1 - 2 courses. The data of autocorrelation analysis allowed to determine the expressed statistically significant relationship between the level of physical fitness and the formation of skills and abilities to use the means of physical culture and sports for the prevention of diseases r – 0,685; (p 0,05). Determining the dependence of the levels of qualification characteristics of the indicators of physical fitness determined arithmetic mean values, standard deviations and correlation coefficients for each pair of the studied indicators. Determination of arithmetic mean values, standard deviations and correlation coefficient for each pair of variables allowed to determine the dependence of the development of theoretical educational modules on the level of physical fitness. The average level of physical fitness was 3.58 ± 0.47 points. The best indicators of physical fitness were revealed in students of 3 – 4 courses 3, 97± 0,23 points, the second results 3,54 ± 0,27 points in terms of physical fitness were determined in students of 5 – 6 courses and 3, 23± 0,31 points corresponded to the physical fitness of students of 1 – 2 courses. The average level of knowledge of the use of physical culture for preventive purposes – 30.07 ± 3.7 points, the level of knowledge of modern health technologies - 29.6 ± 3.8 points the level of knowledge of morphological and functional changes in physical culture and sports 28.6 ± 3.5 points. Autocorrelation analysis allowed to determine the statistical significance for each component under study, which was: r1,2 = 0.677 (p 0.05) : r1,3 = 0.651 (p 0.05); : r1,4 = 0.729 (p 0.05). Using the multiple regression equation y = x1 + x2 + X3 + 22.99, where x1 – level of physical fitness (points), x2 - level of development of skills and abilities to apply means of physical culture and sports for the purpose of prevention of development of diseases (points) and X3 – level of knowledge of the occurring morphofunctional changes of an organism at occupations by physical culture and sports (points), y – level of development of theoretical educational modules (points). Consequently, with an increase in the level of physical fitness by 0.17± 0.03 points, we observed an increase in the methodology of practical skills and abilities by 3.57± 0.21 points.

Summary. To sum it up, the study allows us to express the opinion that the level of physical fitness of students of the main medical group is characterized by appropriate indicators of the development of methods of use of modern health technologies, the ability to recommend the optimal motor mode for different groups of the population. The results of this work allow us to predict the levels of development of educational modules, taking into account the general cultural competencies, identify priority areas for the development of skills and abilities to apply the means of physical culture in medical practice, as well as conceptually form the direction of educational modules.

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TO THE QUESTION OF EDUCATIONAL STUDENTS TRAINING OF THE FSIP INSTITUTIONS OF RUSSIA TO RUN FOR 2000 m.

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Abstract. The article deals with the methodological approach to prepare students to meet the standards for running at 2000 m., involving the implementation of adaptation to individual levels of students preparedness by distributing the composition of training groups, the use of a repeated method of endurance development with different indicators of physical activity.

Key words: physical training, individualization of workload, general and speed endurance.

Introduction. Female students evaluation of educational organizations of the FSIP of Russia in physical culture is exhibited for the tests performance of general physical training, one of which is running at 2000 m. The results of this exercise are evaluated in points from one to five in increasing the development degree of general endurance in the test [3]. Control standards of this exercise are presented in table 1.

Table 1 – Control standards exercise «Running at 2000 m»

Test	Assessment in points				
	5	4	3	2	1
Running at 2000 m . (min, sec.)	10.15	10.50	11.15	11.50	12.15 minimum threshold

Data generalization of standards performance by students during a semester and academic year shows performance complexity of this exercise. So for the first year of training, almost half of the proven students were not able to overcome the minimum limit in running at 2000 m, and 48% of them are not able to run at a slow pace of 1000 m and complete the distance. This is primarily due to the weak physical development of students (41 %), the presence of chronic diseases that are not classified as a special group of health conditions (14 %). In the second place - the weakened physical condition of students limits the possibility of using existing techniques designed for healthy young people, during the years of study at the school repeatedly participated in the tests of the all-Russian sports complex RWD (ready to work and defense). The current situation has led to the search for new ways to prepare students to overcome the minimum time limit for running at 2000 m.

Methods and organization of research. The proposed methodological approach is implemented as an experiment during the first year study at the Voronezh Institute of the FSIP of Russia. The study involved three study groups of first-year students, total is 32 people. With them, according to the schedule, twice a week conducted training sessions on physical culture. In September – October (the first mesocycle) and April - may (the second mesocycle) during each training session was conducted physical training aimed at preparing students to meet the standards for running at 2000 m. The duration of the guided training was 25 minutes, during which the students performed individual tasks. For this purpose, the students were divided into three subgroups according to the endurance development levels. The first subgroup consisted of the most trained students, covering a distance of 2000 m. for 10min. 50 sec. and faster, the second subgroup included students who perform the minimum standard with high voltage, the third subgroup is formed by students who do not know how to run the distance completely.

Training tasks for each subgroup were performed by repeated method, but differed in different volume and intensity, which ensured the adequacy of physical activity and created motivation for the real achievement of the set short-term goals [1]. Objective monitoring of training missions implementation were carried out by the timekeeping is taken to run the distance, subjective control – heart rate monitor. The purpose of the planned training task was determined by modeling the part of physical activity that the intensity of the students perform during the standard delivery, but are not able to perform the required amount. To do this, the distance of 2000 m was divided into 5 equal segments (in our case it is five and a half circles) and set the time for which it is necessary to run one segment, that is one circle. Thus, the required time taken to run each circle subgroup of students who train to overcome the minimum limit was 2 min., for students applying for the best score on 5-10 sec. faster.

The duration of rest intervals was determined by heart rate monitor (the number of beats per 10 seconds), and the duration of rest until full recovery – timing. The content of training tasks for a subgroup of students who cannot overcome the minimum limit are presented in the table. 2.

The presented training tasks illustrate sixteen sessions of the first mesocycle. The second mesocycle was also planned for sixteen classes. At the same time, the intensity and volume of physical activity were adjusted taking into account the results of subjective control and well-being of those engaged in the first training.

Results and discussion. Results of approbation of the considered methodical approach on students preparation for standards performance on run on 2000 m are presented in table 3.

Table 2 – The content of training tasks for a subgroup of students who cannot overcome the minimum limit

№ lesson	Load volume content	Load intensity characteristics	
		Distance running time	Period of rest intervals
1, 2	1 lap (365 m.) 1 lap (365 m.) 1 lap (365 m.) 1 lap (365 m.)	2 min. 2 min. 2 min. 2 min.	up to 20 pulse rate up to 20 pulse rate up to 20 pulse rate
3, 4	1 lap (365 m.) 1 lap (365 m.) 1 lap (365 m.) 1 lap (365 m.) 1 lap (365 m.)	2 min. 2 min. 2 min. 2 min. 2 min.	up to 20 pulse rate up to 20 pulse rate up to 20 pulse rate up to 20 pulse rate
5, 6	1 lap (365 m.) 2 lap (730 m.) 2 lap (730 m.)	2 min. 4 min. 4 min.	up to 20 pulse rate up to 18 pulse rate
7, 8	1 lap (365 m.) 2 lap (730 m.) 3 lap (1100 m.)	2 min. 4 min. 6 min.	up to 20 pulse rate up to 18 pulse rate
9, 10, 11, 12	1 lap (365 m.) 3 lap (1100 m.) 3 lap (1100 m.)	2 min. 6 min. 6 min.	up to 18 pulse rate up to 18 pulse rate
13, 14	1 lap (365 m.) 3 lap (1100 m.) 4 lap (1470 m.)	2 min. 6 min. 8 min.	up to 18 pulse rate 8 min.
15	1 lap (365 m.) 4 lap (1470 m.) 4 lap (1470 m.)	2 min. 8 min. 8 min.	up to 18 pulse rate 10 min.
16	1 lap (365 m.) 5 lap	2 min. 10 min.	5 min.
Control standards exercise	5, 5 lap (2000 m)	11 min.	

Table 3 – Dynamics of students indicators on the run 2000 m. at the beginning and at the end of the pedagogical experiment

Comparable subgroups	Runing 2000 m., sec.		Significance of differences in Student criterion		
	At the beginning of the first meso-cycle	At the end of the second me-socycle	$t_{emp.}$	$t_{cr.}$	level of significance p
First (strong)	642,4	624,2	11.7	4,604	$p \leq 0,05$
Second (average)	704,5	650,0	13,2	3,169	$p \leq 0,05$
Fhird (weak)	885,7	727,7	21,6	2,947	$p \leq 0,05$

As can be seen from the table, by the school year end in all subgroups there is a positive dynamics of results. The largest changes occurred in the third subgroup of students preparing to overcome the minimum time limit, with 91 % of them were able to meet the established standard. According to the method described in [2], the differences in the level of general endurance development at the beginning and at the end of the experiment in all subgroups are statistically.

Conclusion. Thus, the results of the pedagogical experiment show that the developed methodological approach to prepare students to meet the standards for running on 2000 m., involving the implementation of adaptation to individual levels of students preparedness through the distribution of the composition of educational groups, the use of a repeated method of endurance development with different volume and controlled intensity of physical activity for each subgroup, including students with a low level of physical development is the most effective in educational organizations of the FSIP Russia.

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OPTIMIZATION OF FIRE TRAINING OF CADETS AND LISTENERS OF EDUCATIONAL ORGANIZATIONS OF THE MIA OF RUSSIA

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Abstract. The article presents data on the analysis of the results of the survey of cadets and students of organizations engaged in educational activities and under the jurisdiction of the Ministry of internal Affairs of Russia. As a result of the study, the indicators of increasing fire training of employees based on improving the level of physical and psychological preparedness are determined.

Key words: vocational training, cadets and trainees, fire training, model situations.

Introduction. The ongoing changes in the education system could not ignore the area of vocational training in the system of organizations engaged in educational activities and under the jurisdiction of the MIA of Russia. The training of highly qualified specialists who perform the functions of protecting public order and ensuring public safety, protecting the rights and freedoms of citizens is one of the priorities of the state. Formulated by various authors, this essential research findings without a doubt contribute to the improvement of fire training of cadets and students of power Universities (Sibirko M. A., 2012, Napalkov, Yu. a., 2015, Potapovich, P. V., 2016, Bindings A. M., 2018, etc.).

Meanwhile, the solution of this pedagogical problem during the educational process throughout the period of training is significantly complicated due to the need to overcome a number of problems in the process of firearmy training.

According to the recommendations of the Civil Service Department of the Ministry of Internal Affairs of Russia for the first year, cadets and trainees are required to undergo training based on a set of disciplines, including fire training, the program "Police". This requirement allows for the later performed by the cadets and students responsibilities for the protection of public order, including duty firearms. The criminological analysis of statistical data on a number of articles of the criminal code of the Russian Federation allows to draw a conclusion that still there is a high level of the crimes potentially influencing possibility of use of physical force, special means and firearms by police officers. In 2017, in particular, 8443 facts of crimes under article 318 of the criminal code of the Russian Federation ("Use of violence against a representative of the authorities"), 121 facts provided were registered in article 317 of the criminal code of Russian Federation ("the Encroachment on life of employee of law enforcement body"), 5434 fact, crimes involving weapons, to 28916 increased the number of crimes connected with illegal circulation of weapons. Police officers are still reluctant to use weapons, even if there are grounds under the current legislation.

According to the data of objective control in the classroom, more than 70 % of cadets and trainees in some cases are almost not ready for the possible use of weapons in a real situation, while having a positive level of assessments for the implementation of exercises on the course of shooting provided by the current Manual on the organization of firearms training.

The purpose of this study was to determine the target indicators aimed at improving the level of fire training of cadets and students in the system of organizations engaged in educational activities under the jurisdiction of the Ministry of internal Affairs of Russia

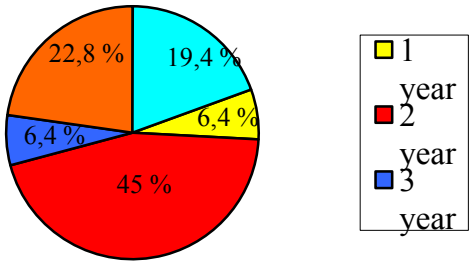
Methods and organization of research. As the main method was chosen sociological survey conducted among cadets and students of organizations engaged in educational activities under the jurisdiction of the Ministry of Internal Affairs of Russia. The sample population is 420 people. The questionnaire was compiled using Google forms and had 3 parts structurally. The first part is an introduction, describing the goals and objectives of the survey and containing instructions for completing the questionnaire. The second part is aimed at collecting personal data: gender, year of study, level of skills, intensity of training. The third part of the questions is aimed at obtaining the necessary information, based on the objectives of the study.

Among respondents exposed to the survey, girls was 53.3%, boys is 46.7 %. The sample of respondents by year of study was distributed between cadets and trainees undergoing training in the specialty program, from 1 to 5 courses (picture.1).

91.7 % of the respondents had no experience of in-depth study of firearms shooting techniques, which confirms the representativeness of the sample of the General population. The confidence interval doesn`t exceed 6.4%.

The results of the study and their discussion. Analysis and synthesis of the obtained data revealed that 54.9% of respondents rated their level of fire training as good and high, 39.4% as "average", implying in most cases positive ratings in shooting, but lack of understanding how to improve results, and Only 5.7% of respondents are both low and very low.

The survey revealed that 82.2% of the respondents during the training sessions the teacher set the task of developing the technique of performing the small exercise of the "idle" training program, 35.6% during the classes practiced motor actions in modeled situations of possible use of weapons (shooting in motion , because of shelters, from uncomfortable positions, after physical activity), 39.4% of respondents during classes offered to perform a set of physical exercises before working with weapons and 1.1% of cadets and students could not remember I left the classroom tasks.



Picture 1 – Respondents who participated in the survey based on the training course (n=420)

Analysis of the totality of these answers allows us to hypothesize that the existing model of building lessons does not fully meet the requirements for the formation of the necessary competence of a graduate of organizations conducting educational activities and under the jurisdiction of the Ministry of Internal Affairs of Russia in terms of the possible use of weapons.

As a result of the analysis of the training programs of the "Fire Training" discipline, the uneven distribution of hours by semesters of training was revealed, which, according to the respondents, is one of the main problems in the training of shooting techniques in the framework of fire training. This problem is reflected in the responses of respondents. To the question "How often do you have fire training classes?" 13.3% answered that classes are non-systemic, 8.9% of respondents noted that classes are held once a month, 28.3% chose the answer "every two weeks ", 53.3% chose the answer" once a week ". The answer "once a week" was chosen mainly by the 2 nd year cadets, and this is primarily due to the current curriculum, according to which this training year has the largest number of training hours in the "Fire training" discipline, which only confirms the advanced thesis that there is no systematic training.

According to the majority of respondents, the ability to forcefully suppress the actions of offenders is one of the key competencies that a police officer must master. However, analysis and synthesis of data from the questionnaire revealed that 77.8% of respondents fear the legal consequences of using weapons in their work activities, 36.1% of respondents are psychologically unprepared for using weapons in real life situations, they are afraid and not confident, 30.6% state is insufficient experience in shooting under conditions of knocking down factors, 27.2% are not ready to properly evaluate and make a decision in a limited time interval and 24.4% are not ready to use weapons against a living person for reasons of humanity.

The results of the questionnaire indicate both the problem of lack of confidence in the guaranteed legal protection of a police officer by the state, and the problem of lack of preparation of cadets and students of organizations engaged in educational activities under the authority of the Ministry of Internal Affairs of Russia to the actual use of weapons.

Data analysis showed that cadets and trainees have extremely little experience in performing situational rifle exercises, constructed on the basis of practical game scenarios related to physical and psychological stresses, and based on the practice of using weapons. The results of a questionnaire survey revealed that 16.1% of respondents never performed such exercises, 55.6% performed such exercises several times during the training period, and only 28.9% performed such exercises regularly. 26.7% of respondents believe that the exercises provided by the current Manual on the organization of fire training contribute to the development of basic skills in handling weapons, 7.3% believe that the exercises provided do not affect the development of the necessary skills. Thus, it can be assumed that a third of the students do not see a real goal in the training of fire training, which also complicates the process of developing the necessary skills and skills in shooting from combat hand-held small arms.

Willingness to use weapons in real life is a complex concept, including psychological, physical, tactical and fire training. Defining the role of physical training in shooting, according to 52.2% of respondents, the level of physical fitness is directly related to the results of shooting. 38.3% of respondents confirm the view that physical training is important for the effective use of weapons, but is not decisive and 9.5% believe that physical training does not affect the level of fire training. Thus, 90.5% of respondents appreciate the impact of physical training on the level of fire training. However, only 27.2% of them in the classroom do physical exercises without weapons, while 22% spend only a few minutes on this, 52.2% spend 10 minutes on this, 18.9% spend 10 to 15 minutes.

It should be noted that fire training classes in the system of organizations engaged in educational activities under the jurisdiction of the Ministry of Internal Affairs of Russia are based mainly on the principle of working out elements of firing techniques at idle and with a cartridge. The role of a teacher is often reduced to the function of a controlling person. The presence of the required interdisciplinary connections in the work programs of the "Fire Training" discipline is not fully observed, which negatively affects the level of fire preparedness of cadets and trainees.

Conclusion. The study revealed that the introduction of interdisciplinary programs in the departments of the power sector to the curriculum in the system of professional organizations conducting educational activities under the jurisdiction of the Ministry of Internal Affairs of Russia will optimize the method of training cadets and trainees. At the same time, close attention should be paid to the distribution of study hours based on the principle of systematicity. As part of the firearme training of cadets and trainees, practical game scenarios designed on the principle of stress tests should be used. Actively introduce complexes of physical exercises aimed at increasing the functional readiness of cadets and trainees to take measures for the violent suppression of the actions of offenders. Particular attention should be paid to the motivation of cadets and trainees to improve their professional skills in the framework of independent work.

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UDC **796**

IMPROVEMENT OF TECHNICAL AND TACTICAL BASES OF PAINFUL METHODS OF FIGHT OF STUDENTS OF THE EDUCATIONAL ORGANIZATIONS OF THE MINISTRY OF INTERNAL AFFAIRS OF THE RUSSIAN FEDERATION

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Abstract. Article is devoted to questions of improvement of technical and tactical skill of painful methods of fight on classes in physical training in the educational organizations of the Ministry of Internal Affairs of the Russian Federation. The efficiency of teaching and educational process at development of technical and tactical bases of painful methods of fight is proved by the author.

Key words: physical training, listeners, improvement, painful reception.

Introduction. In daily professional operational and service activity of law enforcement officers often, there are situations at which use of physical force, including painful methods of fight is necessary [4]. Therefore, painful methods of fight represent the painful and suffocating receptions directed to detention, disarmament and forging of actions of the offender, submission by his law enforcement official to the will.

Purpose. For training of listeners for successful performance of operational, office and fighting tasks of professional activity, it is necessary to focus attention on compulsion of offenders to fulfill legal requirements of the employee, at self-defense and protection of citizens against the criminal encroachments connected with violence, violence threat and also suppression of offenses and taking (detention) of the persons who committed offense [3,6].

Justification. According to the curriculum and graphics of educational process, studying of painful methods of fight is carried out on classes in physical training. Tactically painful methods of fight can be used for suppression practically of any resistance of offenders, both active, and armed attack [2]. Most often they are applied to overcoming nonviolent resistance of physical compulsion to action or power overcoming inaction were insufficient [4]. In the specified circumstances, a starting tactical condition is ensuring effective painful reception at the expense of quiet (without noticeable sharp movements, not aggressive, soft, slow and reserved) capture of a hand of the offender. Let us note that reception needs to be carried out at a well-chosen moment when the offender is not capable to show essential resistance. According to technology of fighting methods of fight removal from balance acts as the dominating factor of anticipation, easing and neutralization of counteraction. Therefore, painful methods of fight are an important component of use of physical force and are based on different systems sports single combat the applied receptions developed by long-term practice of work of law enforcement agencies. At the same time, it is always necessary to remember that the purpose of use of physical force is the impartiality and prevention of commission of mob killings [6].

The tactics of the use of physical force, including the painful methods of struggle, are divided into three types [2,5]:

1. Attacking actions. Here we are talking about actions initiated by a law enforcement officer. They are mainly planned in nature, thoroughly thought out and developed in the context of the sequence of application of certain techniques. These actions include various strikes, suffocating and painful techniques, throws.

2. Actions of a protective nature. Here, as a rule, actions aimed at protecting the life and (or) health of citizens or law enforcement officers are considered. They include various blocks, rebounds, release from seizures and precede the counterattacking actions of law enforcement officers.

3. Actions counterattacking character. This includes actions aimed at apprehending or exterminating offenders. These actions require a quick and accurate response to the actions of an adversary who has encroached on the life or health of citizens or police officers and must be adapted to the situation in order to assess the proportionality of the use of physical force and painful techniques of struggle.

The most minimized by the damage in the technique and tactics of physical force are the painful techniques that exclude the possibility of causing unnecessary injuries to the offender and guaranteeing control over him. The detention of the offender is the final stage of the use of painful admission and the employee must complete this cycle by bending the arm behind his back to neutralize him completely. Therefore, in order to adequately use physical force and painful combat techniques, law enforcement officers must keep themselves in good physical shape and have sufficient knowledge of combat tactics. Moreover, one of the significant conditions for an effective training process in physical training is the principle of consciousness, which allows the listeners to form a meaningful attitude to the objective laws of the technique and tactics of using painful techniques of struggle [1].

Findings. Summarizing the above, we note that in the face of ever-increasing demands for professional physical training of students of educational institutions of the Ministry of Internal Affairs of Russia, the use of physical strength and painful combat techniques are an integral part of their operational, official and combat activities. It is also necessary to emphasize that when applying painful methods of struggle, it is always necessary to correlate them with the degree of social danger of the offense committed [2,6]. In view of this, the training process that promotes the development of technical and tactical skills of painful combat techniques is an essential component of the vocational training program for students of educational institutions of the Ministry of Internal Affairs of Russia, as the life and health of citizens and the law enforcement officers themselves depend on their level of professionalism. In these conditions, law enforcement officers should be interested in the devel-

opment of a paradigm not only in various legal sciences, but also in the field of the use of physical force and painful methods of struggle [3].

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ORGANIZATIONAL ASPECTS OF PHYSICAL TRAINING NORTH CAUCASIAN INSTITUTE OF PROFESSIONAL DEVELOPMENT OF POLICE OFFICERS OF RUSSIA

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Abstract. Article is devoted to questions of improvement of methodical bases of an intensification of process of physical training in general and studies at the North Caucasian institute of professional development of police officers of Russia.

Key words: listeners, employee, competence, physical training, methodical approach.

Introduction. The analysis of professional and applied activity of law enforcement officials shows that often during power detention criminals (offenders) find quite high level of the physical fitness equal or the employees exceeding fitness. Moreover, by criminals (offenders) it is often used cold and (or) firearms [1, 3].

Therefore, for the solution of operational, office and fighting tasks staff of bodies of internal affairs has to have the high level of physical fitness in the context of possession of skills of application of methods of hand-to-hand fight and skills of weapon handling.

Purpose. However, despite the undertaken measures directed on increase in professional standard of police officers of Russia, carrying out practical and educational and training on physical training at faculty of retraining and professional development of the North Caucasian institute of professional development confirms once again that a considerable part of listeners does not own in a due measure methods of hand-to-hand fight, skills of weapon handling, practical firing and also necessary level of physical training.

In the circumstances it is expedient to resolve contradictions between objective lack of due level of operational fighting and physical fitness of many staff of bodies of the Ministry of Internal Affairs of the Russian Federation and requirements to professional readiness [4].

Existence of the specified disagreements leads to understanding that need for development of modern techniques and solutions of the designated problems for increase in professional readiness ripened.

Justification. In view of the fact that physical training of law enforcement officers is always limited to time, one of the main directions of the solution of problems of optimization of vocational training is improvement of methodical bases of an intensification of process of physical training in general and studies in particular.

Practical classes on studying of exercises of subject matters of physical training, as a rule, are is concentrated during certain time. And this circumstance does not allow to train the staff of law-enforcement structures rationally to use all skills, necessary for their professional and applied activity, after physical activity or after maintaining a duel with the offender for his detention [2].

Listeners study complex use of physical training at the solution of office and operational tasks, which allow modeling the situations arising in the course of the solution of operational office tasks [3].

At the North Caucasian, institute of professional development of police officers of Russia on practical and educational and training on discipline "Physical training" the complex method found broad application. Acts as its appointment the overcoming a special obstacle course and also exercise focused on overall physical conditioning, contact sports, use of practical tasks with connection of moral and strong-willed qualities, complication of conditions of performance of the known exercises connected with risk situations. In the course of the occupations, various situations depending on weather conditions and solvable tasks are modelled [2].

So, results of entrance control show that from 15 to 20% of candidates for training show the low level of the general physical training. One of the main reasons – absence at law enforcement officials of steady motivation, interests and the need for systematic occupations physical training and sport. In practical divisions a part of police officers of Russia are not engaged in systematically physical training at all. The physical shape acquired by them in the course of training within the next 3-5 years sharply worsens.

For permission of the existing problem and elimination, the following contradictions from its other approach, which will allow expanding, considerably a framework of the developed ideas of the purposes and problems of physical training [1] is necessary essentially. In this case, it is necessary to speak about need of formation at listeners of understanding of need of continuous physical improvement.

In terms of modern science, it is expedient to consider physical training as the pedagogical system of formation of the set characteristics (competences) determined, first, by the purpose and problems of vocational training of future quick workers. It is natural that at such competence-based approach qualitatively higher level of the created scientific and pedagogical product of the police officer of Russia is supposed.

For formation of competence at listeners on practical and educational and training on physical training and also in hours of sports work, besides the solution of educational and improving tasks it is necessary to pay attention to the solution of educational tasks, namely [2]: development of scientific and practical fundamentals of physical culture and healthy lifestyle; understanding of a social role of physical training in personal development; awareness of need of physical training for professional activity.

One of ultimate goals of education of police officers of Russia in the course of physical training – formation of a habit to performance of physical exercises (i.e. a new way of life).

Conclusions. Thus, improvement of educational process on physical training is one of the major tasks in providing the good sportswear of listeners sufficient for performance by them further operational office tasks.

Therefore optimization of training process assumes following to the following principles [4]: the physical fitness of trainees has to correspond to specifics of the studied physical actions; to try to obtain from the trained clear understanding of purpose of each technical action in its semantic and situational structure; stage-by-stage optimization of number of the remembered information and rate of her perception; to form skills of independent psychophysical regulation and choice of strategy of motor activity at trainees; it is necessary to train not in ways of the solution of separate motive tasks, but methods of the solution of a complex of motive tasks and methods of designing of the conjoint actions which are carrying out local functionality; respect for unity of the collective training dictated by specifics of single combat and individual approach to the trainee [2, 4].

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DEVELOPMENT OF MOTOR QUALITIES BY MEANS OF POWER ENDURANCE

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Abstract. This article is devoted to such an urgent topic as the peculiarities of the development of strength endurance in university students. The article deals with the need to change approaches to improving the health and physical fitness of students enrolled in higher educational institutions.

Key words: strength endurance, motor skills, experimental research, control and experimental groups, a set of exercises.

Introduction. It is extremely important to initially note that it is worth calling power abilities nearly the most important, vital physical abilities of people, they give us not only to successfully fulfill the professional and military duty, but also are reasonably useful in household life [3].

As these abilities is understood a complex of various manifestations of people in the certain motive activity which is basedon the concept of "force". By force is meant as ability of people to overcome external resistance or to counteract it through muscular efforts [2, 5].

Under the power endurance should be understood theability of the human body as power endurance it is prolonged in the temporal relation to show the optimum muscular efforts. The success of activity motive depends on its level of development. It should be noted that power endurance is a complex physical quality, of a complex type, in general, its level correlateswith the level of development of vegetative systems, which provide to all organism the oxygen mode and the condition of the neuromuscular device [1, 6].

After studying of modern approaches to perception of the methods aimed at the development of power endurance it was defined how the most effective method of nonlimiting efforts as it speaks about the use of nonlimitingburdenings with a limit number of repetitions (to the full) [4].

The set of exercises consisting of blocks was developed:

- the block of development of force (the repeated method, the dosage of 10-15 times in 1 set (20 minutes), was applied by a hear rate 140-170 BPM);
- the block of development of speed (the method repeated, the dosage from 30m-200m in 1 set (20 minutes), was applied by heart rate of 160-170 BPM);
- the block of development of endurance (the method uniform, repeated, the dosage from 1000m-5000m for one occupation (90 minutes), heart rate from 140-170 beats per minute.

The purpose of the research: to test the algorithm of application of the complex of power endurance for students on the level of development of motive qualities.

Methods and organization of the research. At the first stage (September, 2018) selection of examinees and formation of two groups, experimental and control, for the purpose of comparative analysis of results of work was carried out.

The research was conducted on the basis of SPBGASU.

Students of Faculty of Economics and Management in the amount of 30 people participated in the research.

The formation of groups was carried out in accordance with the principle of representativeness of selection. Examinees had no essential differences in the studied indicators. Also the control cut by the picked-up control tests (the set from the prone position, bending – extension of hands in the lying posision, run of 60 meters, run of 500 meters) researches in both groups of examinees was carried out.

Criteria of estimation

Set from the prone position: 5 points – 40 times; 4 points – 35 times; 3 points – the 30th time; 2 points – 25 times; 1 point – 20 times. Bending – extension of hands in the lying support: 5 points – 30 times; 4 points – 25 times; 3 points – the 20th time; 2 points – 15 times; 1 point – 10 times. Run of 60 meters: 5 points – 8.0 seconds; 4 points – 8.5 seconds; 3 points – 9.0 seconds; 2 points – 9.5 seconds; 1 point – 10.0 seconds. Run of 500 meters: 5 points – 115.0 seconds; 4 points – 117.0 seconds; 3 points – 119.0 seconds; 2 points – 121.0 seconds; 1 point – 123.0 seconds.

The second stage (September 2018 – November 2018) assumed carrying out the research during which the analysis of nature of influence of the developed set of exercises was carried out by funds of power endurance for development of motive qualities.

Thus, with experimental group for 2 months (3 lessons a week) in the framework of physical education classes, the developed set of exercises was used.

The control group was engaged according to the traditional program.

Upon completion of work with experimental group, diagnostics of the impact on development of motive qualities by means of power endurance was repeatedly made.

The third stage (November 2018) is experimental and analytical: mathematical processing of materials of the research, comparison, analysis and synthesis of the obtained data was carried outthe results were formalized.

As a result of repeated diagnostics of impact on development of motive qualities by means of power endurance it was found out that EG result is much higher, than in KG.

Let's consider rates of gain of physical indicators at examinees of experimental and control group (table 1).

Table 1 – Dynamics of indicators of development of motive qualities of experimental and control group

	Cut		Analysis of changes in the average score for the group
Group	Stating	Control	
Experimental	3,25± 0,2 points	4,30± 0,7 points	1,05*points
Control	3,28± 0,2 points	3,43±0,6 points	0,15 points
Note: * - reliability of distinction on significance value 0,05.			

Thus, at primary diagnostics (the stating cut) of the level of physical development at students in experimental and control groups showed similar results with an insignificant difference of 3.25 and 3.28 points respectively.

The average value of physical development in experimental group wassignificantly higher, than in control: in experimental group – 4.30 points, and in control group – 3.43 points. It is connected first of all with the organized training system and application of the developed algorithm of development of motive qualities, from higher exercise stress in EG, as affected result of testing.

Thus, in the process of empirical research, positive changes in the indices of development of motive qualities with the offered set of exercises in students of experimental group were revealed. Results of the conducted researches demonstrate efficiency of application of the set of exercises and give the grounds to recommend it for the physical training of students.

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STRUCTURE OF THE SPORTS AND RECREATIONAL STAGE OF PREPARATION OF YOUNG ATHLETES

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Abstract. The article proposes a description of the training program at the sports and fitness stage with the use of complexes of general developmental, gymnastic exercises and karate exercises. The improving orientation of the author's program is shown.

Key words: sports and fitness stage of preparation, an integrated approach, the author's program, Kyokushin karate.

Strengthening the health of the younger generation is the most important task of modern society. The etymology of the stage name indicates the need to combine these words into a single whole. Literal understanding means doing sports for health, for health promotion.

Understanding the etymology of the name of the sports and recreational stage of training should be sought in the regulatory legal documents that determine the content of sports training. Consider what place is in the system of physical education sports and fitness training stage. Law "on physical culture and sport in the Russian Federation" №329-FZ. Paragraph 2 of article 32 States that "the Content of the sports and recreation stage is determined in accordance with the additional General development programs in the field of physical culture and sports implemented by such organizations, and the requirements of Federal standards of sports training do not apply to this stage". And this point begins with fixing of possibility of implementation of this stage in the organizations of additional education of children.

Another law in paragraph 3 of article 23 "On education in the Russian Federation" №273-FZ defines the organization of additional education as "an educational organization that carries out as the main purpose of its activities educational activities for additional General education programs." Finally, the construction of a standard of sports training in sports does not include this stage in the system of sports training, emphasizing the importance of the sports and recreation stage not for sports, but for strengthening the health of the younger person. If we consider the standard terms of the beginning of different sports, we can see that it varies from 6-8 years in gymnastics to 10-11 years in fencing, weightlifting.

Thus, the sports and recreation stage provides classes in General education programs as conditions for the development of children by means of physical culture and sports in the system of additional education. Additional education is aimed at the formation and development of creative abilities of children, meeting their individual needs for intellectual, moral and physical improvement, the formation of a culture of healthy and safe lifestyle, health promotion. The key at this stage is the task of improving the child's physical culture and sports. However, at the age when the sports and fitness stage is realized, it is impossible to rely on one of the key principles of sports training, orientation to the maximum sports achievements, in-depth specialization, but individualization is quite suitable [3,4].

It should be noted that at the sports and recreation stage it is necessary to rely on the principle of continuity, which provides for the regularity of training, thereby creating the prerequisites for the accumulation of cumulative effect from exercise. At this stage, the leading criterion for the effectiveness of training is the preservation of the constancy of the number of students, which is impossible without a certain interest of children in performing exercises. In previously published materials it was shown that Kyokushin karate attracts children of preschool age with the opportunity to acquire significant personal qualities [1]. In Russian literature, this stage of training is usually associated with the creation of some Foundation of General preparedness of young athletes, which then serves as some basis for further physical development (V. K. Balsevich, 2000; L. P. Matveev, 2008; Platonov, 2004, etc.). However, the study of the issues of systematization of loads through exercise of different directions is not given enough attention, which allows us to include the topic of this study among the relevant.

The aim of the study was to develop a model of training at the sports and recreational stage of training of young athletes.

Methods and organization of research. The study involved sixteen children aged seven to ten years, attending a group in the sports club "Be healthy!"Ramenskoye City Federation Kyokushin Karate-do.

For carrying out research the author's programs of improving occupations with preferential use of means of the General physical preparation and exercises of karate Kyokushinkai providing the solution of the following tasks were created:

- health promotion;
- mastering the basics of physical exercise techniques;
- acquisition of versatile physical fitness on the basis of versatile occupations;
- instilling a strong interest in physical exercise.

The program is designed for classes three times a week for an hour and a half. The author's program is based on the principles of continuity, regularity, individualization and accessibility of the organization and con-

duct of classes [2]. The effectiveness of the program was tested during a pedagogical experiment lasting nine months.

Indicators of physical development of participants of pedagogical experiment are presented.

Table 1 – The indexes of physical development

№ p/p	Indicator	Value
1	Height, cm	132,1±6,1
2	Body weight, cm	31,69±7,75
3	Heart rate	88,54±9,12
4	Blood pressure (systolic./diast.)	95,92±13,67 / 61,62±6,63

Research results and discussion

The author's program included both classes using traditional General physical exercises presented in our publication (link to article 2) and gymnastic exercises that allow you to form the basis of the correct technique of motor actions presented in table 2.

Table 2 – The composition of gymnastic exercises of the author's program for the sports and recreational stage of training of children of primary school age

№ p/p	The name of the gymnastic exercises	Lesson number
1	«Most»	3, 9, 15, 21, 27, 33
2	«Berezka»	2, 8, 14, 20, 26, 32
3	Twine	1, 7, 13, 19, 25, 31, 36
4	Rolls back and forth in the group	4, 10, 16, 22, 28, 34
5	Handstand and handstand with bent legs	5, 11, 17, 23, 29, 35
6	Walking in a handstand	6, 12, 18, 24, 30, 36
7	Flip sideways "Wheel»	2, 8, 14, 20, 26, 32

Exercises were distributed throughout the period of implementation of the author's program and alternated with karate Kyokushin exercises (table 3). Such alternation was implemented in accordance with the principles of continuity and regularity.

The implementation of the principle of availability provided for the mastering of the technique of execution of the elements of karate with a certain level of physical fitness of the child, which is determined by the results of testing the physical qualities assessed in the test "Jogging in place, 10C", "the long Jump from the place, the rising of the torso, over 30", "Tilt forward" and "Remove the stick".

The principle of accessibility was implemented in the form of individual indicators of physical activity, which included a certain number of exercises from different segments of the program, depending on individual physical development, a certain number of repetitions of exercises, determined by the need for adequate impact on the development of the technique of performing individual motor actions, including karate Kyokushin exercises.

Table 3.

A fragment of the content of karate Kyokushinkai exercises for the author's program of the sports and recreational stage of classes for children of primary school age

№ p/p	The name of the gymnastic exercises	Lesson number
1	Jodan uke – block from hitting the top level (head).	2, 8, 14, 20, 26, 32
	Soto uke – inside block from a blow to the middle level (torso).	3, 9, 15, 21, 27, 33
	Uchi uke – a block from a blow to the average level.	4, 10, 16, 22, 28, 34
	Gedan barai – unit from the impact at the bottom level (the legs).	5, 11, 17, 23, 29, 35
	Tsuki jodan – a direct blow to the upper level.	6, 12, 18, 24, 30, 36
	Chudan tsuki – straight punch to the middle level	7, 13, 19, 25, 31, 36

The principle of accessibility was implemented in the form of individual indicators of physical activity, which included a certain number of exercises from different segments of the program, depending on individual physical development, a certain number of repetitions of exercises, determined by the need for adequate impact on the development of the technique of performing individual motor actions, including karate Kyokushin exercises.

The use of such a wide range of physical exercises has a positive effect not only on the development of the level of physical qualities, but also on the development of functional indicators of the body involved in this program of children of primary school age (table 4).

The Quetelet index varied from 16.04±3.34 at the beginning of the pedagogical experiment to 18.04±3.44 at its end, which indicates a normal ratio of body weight and height in this group of participants in the experiment and allows them to be attributed to the norm for this age group.

Table 4 – Data on the functional development of the participants of the pedagogical experiment

№ p/n	Tests	Start	End	Validity P
1	The Quetelet index, CONV. food	16,04±3,34	18,04±3,44	<0,05
2	Excursion of the chest, cm	4,8±1,3	6.1±1,4	<0,05
3	Index Robinson, usl. food	86,49±23,15	82,75±26,35	<0,05

Chest excursion significantly increased from 4.8±1.3 cm to 6.1±1.4 cm, which confirms the correctness of the selection of health-improving exercises for children of primary school age, the implementation of which contributes to the development of the respiratory system of children of the selected age group.

Robinson index is used as one of the criteria of the functional state of the cardiovascular system. In children, its value corresponds to a satisfactory level of adaptation during exercise. A certain decrease in this indicator during the experiment confirms the beneficial effect of the author's program on the health of children of primary school age.

Conclusion. The author's program using an integrated approach in the selection of exercises of different directions, including physical exercises, gymnastic exercises and karate Kyokushin exercises for the sports and recreational stage of training of children of primary school age.

As a result of the introduction of the author's program of classes for the sports and recreation stage of classes with children of primary school age, it was possible to prove the health-improving nature of the impact on the health of children of this age group. Indicators of physical and functional development of the participants of the pedagogical experiment improved in terms of increasing the Quetelet index, increased the excursion of the chest, and the Robinson index decreased, which is associated with better adaptation of the body of children to the physical activities performed.

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PECULIARITIES OF DISEASES AND PSYCHOPHYSICAL CONDITION OF WOMEN OF THE SECOND PERIOD OF MATURE AGE

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Abstract. The analysis of the results of a written survey of women of the second period of mature age revealed the peculiarities of their psychophysical condition and chronic diseases. It has been established that women engaged in recreational physical culture suffer less from exacerbations of chronic diseases; have a more regular ovarian-menstrual cycle; less susceptible to ailments due to changes in hormonal status.

Key words: women of the second period of mature age, recreational physical culture, psychophysical condition, diseases, menopause.

Introduction. One of the main reasons for the involutional process that accompanies the transition from the first mature age to the second is the extinction of the functional capabilities of the organism. Numerous researchers focus on the features of the psychophysical state of women of this age, due to age-related hormonal changes [5; 2; 6]. Women enter a climacteric period with one or more somatic diseases that complicate the natural biological restructuring of the whole organism and worsen the course of menopause. Scientists have found that women of the second period of mature age are susceptible to functional disorders and diseases of the musculoskeletal system, cardiovascular, nervous, urogenital and endocrine systems [3; 4; 6; 1]. One of the **objectives** of the study was to identify the characteristics of diseases and psychophysical status of women of the second period of mature age, engaged and not engaged in recreational physical culture. The subject of the analysis was the following parameters: the presence of chronic diseases and their exacerbations, the regularity of the ovarian-menstrual cycle and malaise caused by age-related hormonal changes (menopause).

Methods and organization of the research. The research conducted a written survey of 288 women of 36-55 years old. The first group of respondents (n = 177) consisted of womenworking in the field of mental work (93.2%) with higher education (78%), regularly engaged in recreational physical culture; the second(n = 111) - women with higher education (83.8%) working in the field of mental work (99.1%) and not having regular physical culture trainings.

Results and its discussion. Women who regularly engage in recreational physical cultureare most susceptible to cardiovascular diseases - 12.4%; musculoskeletal system - 11.3%; gastrointestinal tract - 9%; respiratory system - 5.6%, endocrine - 5.6% and urogenital system - 2.8%. Respondents in this group indicated ophthalmic diseases (1.7%); skin diseases (1.1%); blood diseases (1.1%); oncological (1.1%), immune (0.6%) and gynecological (0.6%). Women who do not have regular physical exertion, noted diseases of the ODE (12.6%), gastrointestinal tract (10.8%), CCC (7.2%), urinary (5.4%), respiratory and endocrine systems (3, 6%). Women in this group indicated the presence of ophthalmologic (2.7%), immune (1.8%), hematologic (0.9%) and otolaryngic (0.9%) diseases. It is revealed that women who are not involved in recreational physical cultureare more likely to suffer from exacerbations of chronic diseases. In particular, 9% of the second and 2.8% of the respondents in the first group indicated the increase in the symptoms of diseases of the musculoskeletal system; cardiovascular system - 6.3% and 3.4%; respectively, respiratory system - 3.6% and 1.1%, respectively, and the urogenital system - 0.9% and 0.6%, respectively. It should be noted that women who are regularly engaged in recreational physical culture (1.6%) are more likely to suffer from exacerbations of diseases of gastrointestinal tract. Women who are regularly engaged in recreational physical culture, pointed to the exacerbation of gynecological, oncological and dermatological diseases - 0.6%; 1.1%; 0.6%, respectively. Women in the second group reported exacerbations of immune diseases (0.9%). More than half (59.9%) of women of the second mature age who are engaged in recreational physical culture indicated a regular ovarian-menstrual cycle; 20.3% noted minor irregularities in it; 11.3% have no menstruation due to age-related hormonal changes; 8.5% suffer from frequent ovarian-menstrual cycleviolations. Among women who are not engaged in recreational physical culture, 46.8% noted a regular menstrual cycle; 21.6% indicated minor violations of the ovarian-menstrual cycleand 14.4% of the respondents reported frequent. Due to age-related hormonal changes, menstruation is absent in 17.1% of respondents in this group. Thus, women engaged in recreational physical culture have a more regular menstrual cycle (by 13.1%); less oftenare cases of minor (1.3%) and frequent (6.4%) violations of the ovarian-menstrual cycle. The presence and nature of ailments associated with age-related hormonal changes were revealed: 37.9% of women of the first and 42.3% of the second group suffer from neurological disorders (migraines, heart palpitations, heart pain, hypo- and hypertension); experience mental discomfort (anxiety, depression, forgetfulness, inattention, irritability, nervous agitation) of 33.3% and 49.5% of respondents, respectively; indicated dermatological problems (dry mucous membranes, skin, brittle nails, hair loss) 24.3% and 26.1% of women, respectively; complained of hot flashes, chills and excessive sweating, 14.1% and 17.1% of respondents, respectively; 9% of women of the first and 11.7% of the second group suffer from physical weakness.

It should be noted psychophysical disorders that are more susceptible to women who are regularly engaged in physical culture: in particular, the respondents from the first group more often complained of joint pain (by 4.1%), drowsiness (by 3.9%) and disorders of the genitourinary system (by 3 , 6%). It can be assumed that the pain in the joints is due to the fact that more than half of the women (58.2%), who are regularly engaged in recreational physical culture, had been actively engaged in sports and physical culture in childhood and adolescence.

Conclusion. Thus, the comparison of the results of the research of national authors and the data of own research showed the absence of significant differences in the nature of diseases and functional disorders of women of the second mature age. It was revealed that women who are regularly engaged in recreational physical culture, more often indicate to disorders of the cardiovascular system, the musculoskeletal system and the gastrointestinal tract, and women who do not have regular physical trainingspoint out diseases of musculoskeletal system,gastrointestinal tract and cardiovascular system. It should be noted that women who are not engaged in recreational physical culture are more susceptible to exacerbations of chronic diseases. It has been established that women who are systematically engaged in physical culture have a more regular ovarian-menstrual cycle and are less susceptible to ailments due to changes in the hormonal status.

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INTEGRATED APPROACH TO THE ASSESSMENT OF THE HEALTH OF THE ELDERLY: A STUDY OF THE INFLUENCE OF PHYSICAL ACTIVITY ON COGNITIVE ABILITIES

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Abstract. The fundamental objective of the study is to identify patterns and mechanisms of maintaining a high level of health of an aging person, the establishment of relationships between the parameters of mental health and the state of physical, personal and social. First of all, between the level of physical activity and the development of cognitive processes (for example, attention and memory) in people aged 50-65 years.

Key words: physical activity, cognitive abilities, attention, memory, elderly persons, old age, integral health concept.

Introduction. In the national doctrine of education of the Russian Federation, the development of a healthy lifestyle is called the strategic development goals of Russia until 2025 [7].

The growth of psychophysiological disorders in human development significantly limits the quality and expectancy of life, prompting specialists to search for causes of deviations and factors ensuring the creation of favorable conditions for the formation of a healthy lifestyle and productive human activity in various fields throughout life.

Currently, European research focuses on the development of the concept of active longevity (activelongevity) and the implementation of a policy of active and healthy longevity as a valuable asset to society. It is impossible to ensure health and active longevity only by treating and even preventing diseases in its current sense. The need for a new, offensive strategy is obvious. Development of a technology, which will enhance the cognitive and physical reserves of an aging person, can become the core of it.

According to research and development of domestic and foreign scientists (B. G. Ananiev [4], S. L. Rubinshtein, V. S. Merlin, V. S. Nechaev [8], Skiridova A. S. [9], and others .; A. Adler, A. Maslow, F. Perls, B. Pedersen [3], J. Denham [2], etc.), the continuation of professional, physical and cognitive activity, an active and healthy lifestyle can significantly withstand the natural age changes in the body, can contribute to a significant increase in the efficiency of their use, to the development of the psycho-physiological potential of a person, can improve integral health, quality of life and lead to personal growth.

In view of the tendencies towards raising the retirement age, the task of preserving the health of the able-bodied population (especially at the ages from 50 to 65) has become significantly important. Solution to the problem of the working ability of people over 50 years will be found with the development of technology, which will enhance the cognitive and physical reserves of an elderly person, the basis of which may be the optimization of the integral resource concept of health.

Currently, researchers articulate the concept of health within one of four models of health:

1. Medical model - takes into account only medical signs and characteristics, health is considered to be the absence of diseases and symptoms (DaribazaronE.C., Nechaev V.S. [8], Ivanova L.G., BabchenkoYu.V., Migachev D.V. ,Ignatov O., Dyachkova M. G., Potekhina N. N., Dontsov V. I., Mamikonova O. A., Potemkina N. S., Smirnova T. M. et al.).

2. Biomedical model - considers the absence of organic disorders in a person and subjective feelings of ill health (Orlov V.A., Fetisov O.B., Strizhakova O.V., Chekalova S.A., Chekalova N.G., SilkinYu.R., Mironova A.I., Kozhevnikova TM, Azova E.A., Azov N.A. and others).

3. Biosocial model includes both biological and social aspects, with a priority of social ones (Burenkov V.N., Isakov R.V., Sushkova L.T., Lazareva A.N., Melnik I.A., Tsarkova N. I. [13], Vorobey O.V. and others).

4. The value-social model assumes that health is a value for a person, a necessary prerequisite for a full life, satisfaction of material and spiritual needs, participation in work and social life, economic, political, scientific, cultural and other activities (Valiakhmetov T.R. ,YurovYu.V., Mavropulo O.S., Orlova D.G., Sochen G.T. [11], Lopatina A.B., KorzhovaE.Yu. [6], Veselova E.K., Anisimova TV, Zalevsky G.V. [5], etc.).

The multilevel and multidimensional nature of the health phenomenon determines the interdisciplinary nature and wide dissemination of holistic, and now integral-value, integrative approach to human health issues (Khvatova M.V., Tsvetkova L.A., Antonova N.A., Sokolskaya M V., Zalevsky G. V. [5]).

There are a large number of attempts to analyze and systematize the various concepts of the central categories of integral human health. Terminological controversy is focused on the discussion of the content of concepts such

as mental health, mental, personal, social well-being, quality of life (V.A.Ananyev [4] and his followers).

Modern scientific data, presented by statistical reports of medical institutions [1], indicate an increase in cases of health problems in people of the second (50 to 65 years) and third (65 years and above) categories of working age. In view of this, many researchers are focused on finding ways to prevent possible diseases. The research results showed that the overwhelming majority of Russian and foreign authors [3, 6, 8, 9, 10,12] point out the huge role of motor activity in a person's lifestyle, the optimal level of which positively affects the state of human health.

The goal of the study: the fundamental task of the study is to identify patterns and mechanisms for maintaining a high level of health of an aging person, to establish the relationship of mental health parameters with the state of the physical, personal and social health. This part of the research is devoted to revealing the relationship between the level of physical activity and the level of development of cognitive processes (fthrough the example of attention and memory) in people of the second able-bodied category (from 50 to 65 years).

Research methods and procedures. In the course of the study there were used: a theoretical method of analysis of literary sources, an empirical method of psychodiagnostic testing, questioning, methods of statistical data processing.

There were used following diagnostic methods as procedures: Schulte's attention span; Munsterberg's concentration of attention; volume of attention - technique of "Ten Words"; short-term visual memory - technique of "Memory for numbers"; test for associative memory; test for coordination abilities "Catching a ruler" (according to the method of S.A. Dumanin). The reliability of the obtained results is determined by quantitative and qualitative analysis of experimental data. For statistical processing there were used methods of mathematical statistics - Brave-Pearson's correlation coefficient.

The study involved 84 people at the age of 54-65 years, engaged in various types of physical activity.

Analysis of the results of the ascertaining experiment

All tested were divided into 6 groups, depending on their age (54-59 years and 60-65 years) and the duration of physical activity trainings (up to 2 years, from 2 to 5 years and more than 5 years), information was collected using questionnaires.

Table 1 – Summary table of indicators of various parameters of the integral human health for the studied groups

The results of the methods (arithmetic average)	54-59 years < 2 years	60-65 years < 2 years	54-59 years 2-5 years	60-65 years 2-5 years	54-59 years >5 years	60-65 years >5 years
Attention span (seconds)	56,15	55,17	38,74	40,77	40,78	42,42
Attention concentration (points)	1,71	1,93	17,94	16,55	11,4	9,2
Volume of attention (correct answers)	4,44	4,33	6,2	6,4	5,25	5,52
Short-term visual memory (correct answers)	3,5	3,86	6,64	6,94	5,8	6,5
Associativememory (correctresponses)	5,3	4,8	7,2	8	6,7	6,5
Coordinationabilities (centimeters)	4,85	4,6	8,47	8,38	8,7	9

According to the obtained data, the stability of attention is sharply reduced depending on the duration of physical activity, and this does not depend on specific age. People at the age of 54-59 years, who are engaged in physical activity for less than two years, are able to maintain attentiveness longer (average 56.15) than those engaged in such an activity for more than two years (38.74) and even more than 5 years (40.78). Similar trends are observed in the age group from 60 to 65 years. Perhaps this is due to the fact that at the beginning of learning motor actions, all students have to master new movements, since they have not yet developed a motor skill. During motor activity practicing, a person masters the technique of performing movements, motor skill is formed, respectively, his attention is released, the need to focus it for a long time disappears.

At the same time, it becomes necessary to focus on external circumstances in which physical activity is involved, i.e. if it is sports (mobile) games - attention should be focused on a specific game situation, if it is gymnastics or Nordic walking, which is very popular among the elderly now, - on the objectives of the exercise or the environment. Consequently, such indicators of attention as concentration and volume, constantly increase. This is especially noticable for those who practice for more than two years (at the age of 54-59 years, the average indicator is 17.94, at the age of 60-65 years - 16.55) as compared to those who practice for less than two years (at the age of 54-59 years it is , 71, at the age of 60-65 years - 1.93).

Similar trends are observed in relation to memory. Physical activity requires the development of short-term visual memory, as well as associative memory in mastering the technique of movement - for the formation of motor skills. This is evidenced by the indicators of a sharp increase in the volume of visual memory for those engaged in physical activity for more than two years: at the age of 54-59 years from 3.5 to 6.64, at the age of 60-65 years - from 3.86 to 6.94. When doing physical activity for more than five years, these indicators begin to decline. The reason for this, apparently, is the fact that the motor skill has already been formed, and new goals for its use are not set, i.e. startup and situational afferentation becomes habitual for those involved, and the need to actively use visual and associative memory goes away.

The development of coordination skills is associated with the formation of a motor skill depending on the duration of the lessons of motor activity. The data indicate an inevitable increase in performance: at the age of 54-59 years from 4.85 with less than two years of practice, to 8.47 - more than two years and up to 8.7 - with more than five years of practice; at the age of 60-65 years old - from 4.6 with less than two years of practice, up to 8.38 - with more than two years of practice and up to 9 with more than five years of practice.

During the comparison of selected indicators of integral health of a person at the age of 54-59 years and 60-65 years, no significant differences were found, consequently, the development trends of selected skills are preserved in the elderly at the age of 54 to 65 years, regardless of the age.

The correlation analysis of the research results was carried out using the Brave-Pearson correlation coefficient for all previously selected 6 groups of students (Table 2).

Table 2 – Dependence between the indicators of coordination and cognitive abilities of

Testingmethods	Coordinationskillsofgroups					
	54-59 years < 2 years	60-65 years < 2 years	54-59 years 2-5 years	60-65 years 2-5 years	54-59 years >5 years	60-65 years >5 years
Attention span	0,15	0,12	0,26	0,14	0,31	-0,033
Attention concentration	0,018	0,51**	-0,21	-0,18	0,33	0,78**
Volume of attention	0,08	0,08	-0,31	0,02	-0,06	-0,21
Short-termvisualmemory	-0,28	0,05	0,4	-0,02	0,22	-0,09
Associativememory	-0,42	-0,29	-0,3	-0,05	-0,59*	-0,03

Note:

* -1 <r <-0.5 Strong negative correlation

-0,5≤r <0 Weak negative correlation

0 <r≤0.5 Weak positive correlation

** 0.5 <r <1 Strong positive correlation

Correlation coefficients have different directions. Concentration of attention indicators are in a strong direct dependence with the coordination abilities of those who are engaged in physical activity at the age of 60-65 years and who practice such an activity for less than two and more than five years. Associative memory has a feedback with the coordination abilities of those who are engaged in physical activity at the age of 54-59 years and who practice such an activity for less than two and more than five years. The remaining dependencies are not significant. The establishment of correlation links allows us to assume that physical activity has a positive effect on the development of not only coordination abilities, but also of cognitive functions of elderly people, in particular, attention and memory. At the same time, the presence of the majority of poorly noticable correlations suggests that cognitive abilities cannot be developed only by means of physical activity. Therefore, in order to preserve the integral health of a person over the age of 50, it is necessary to use special exercises aimed at enhancing cognitive functions during physical activity.

Conclusion. It has been established that physical activity has a positive effect on the coordination and cognitive functions of the elderly. But apart from physical exercises, the inclusion in the training process of means of activating cognitive functions is required. The study of coordination and cognitive abilities showed their high information content in the assessment of the integral health of elderly people. Further challenges in enhancing the reserves of the working population over 50 years are outlined.

This study is a starting point in the creation of an integral resource concept of health of an elderly person. The next subtask is to identify the parameters of physical and mental health depending on the requirements of specific professions of the able-bodied citizens over 50 years, creation of technology on this basis, which will enhance the cognitive and physical reserves of the aging population.

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UDC 371

FORMATION OF HEALTH-ORIENTED DIRECTION IN TRAINING INITIAL CLASSES THROUGH INTRODUCTION OF THE VFSK TRP COMPLEX

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Abstract. The article presents the peculiarities of the formation of a health-oriented environment in an educational institution in accordance with the GEF of a new generation, the content of which is aimed at achieving the goals of protecting and enhancing the physical health of children, mastering the elementary norms and rules of a healthy lifestyle using VFSK TRP.

Key words: healthy lifestyle, VFSK GTO, younger schoolchildren, “health saving”, “health saving environment”, “health saving activity”.

The relevance of our research is determined by the fact that in the modern world new progressive information technologies are constantly developing, the information environment is expanding, simplifying and facilitating life and reducing the physical activity of a modern person.

It is known that an important condition for maintaining health is physical activity. But today, more and more children and adults are influenced by television and Internet virtual addiction. From this environment, the basic attitudes of a wrong attitude towards a healthy lifestyle, as well as an imitation of that behavior and habits of this virtual reality surrounding children, are formed. Therefore, ideas about health, a responsible attitude towards its preservation and mastering the rules of healthy behavior should be formed already during the school age.

All this is emphasized in the GEF of the new generation, where the content is aimed at achieving the goals of protecting and enhancing the physical health of children, mastering the elementary norms and rules of a healthy lifestyle (nutrition, movement mode, hardening, while forming good habits, etc.).

In this regard, recently there has been a discussion among scholars and practitioners involved in ensuring the health of the younger generation regarding the concepts of “health-oriented activity”, “health-saving activity”, etc. [4]

Quite often, teachers, leaders of educational organizations use the concepts of “health saving”, “health-saving environment”, “health-saving activity”, without thinking deeply into their meaning, including the entire set of work to preserve, strengthen and shape the health of students.

At the same time, numerous studies show that the most significant changes in physical development and physical fitness occur in primary school age, which underlines the importance of this period of life, forcing to pay special attention to the formation of a health-oriented orientation and the organization of physical education for children of primary school age [3].

The issue of preserving the health of students, especially among primary school students, is very acute today, since most of the time children are in an educational institution. The existing organization of the educational process in primary school does not provide the necessary body needs of younger schoolchildren in their movements. And it is precisely at the present stage that the formation of a habit in children of primary school age for a healthy lifestyle (HLS) is of particular relevance in raising the younger generation [3].

This need is due, primarily, to the large number of adverse factors affecting the child during the period of study:

- great mental stress;
- reduced time for active rest;
- violation of the regime of work and rest;
- long holding children in a sitting position.

The above factors have a negative impact on the overall health of the younger generation. All this speaks of the actualization of the problem and a qualitatively new approach in students on the formation of a health-oriented orientation in primary school.

The introduction of the concept of the complex “Ready for Labor and Defense” (TRP) in elementary school can be one of the mechanisms for the formation of health-oriented orientation. This is especially important today, when there is a spontaneous popularization of the “unhealthy” lifestyle in the media - advertising of harmful food products, alcoholic beverages, etc.) [1].

In addition, the preparation for passing the standards of the TRP allows the younger students to form a habit of systematic physical exertion not only in physical education classes, but also in other classes organized by teachers, which will have a positive effect not only on health, but also on discipline, but also on improvement basic movements, the development of important functions and systems of the growing organism.

An important positive condition for the TRP complex, as a tool for the formation of a health-oriented orienta-

tion in younger schoolchildren, is the presence of several levels in the complex, the achievements of which it consistently passes as it matures. Such a system ensures the continuity of physical education in general, and this continuity is clearly demonstrated to the student as he prepares for each new stage of the TRP [2].

When preparing a younger student for passing the set of standards to the next stage in the process of physical education, the will to overcome difficulties is formed. In addition, the TRP system instills a schoolchild in the skill of self-planning for their own healthy lifestyle, in terms of daily routine, exercise, a healthy diet system, increases social and labor activity [4].

On the basis of the studied scientific literature, it is possible to identify the main factors the implementation of which, in our opinion, will contribute to the implementation of health-oriented and high-quality training of junior schoolchildren for passing the norms of VFSK GTO.

One of the main factors is variability. It provides for taking into account the individual characteristics involved in the preparation of practical exercises, as well as the inclusion of a variety of training tools in the educational process among younger students.

The second factor is the consideration of the characteristics and state of the students based on the existence of differences between people, which are caused by biological laws and social conditions of life.

The third is a factor - the development of a health-saving environment in an educational institution, an active cognitive process in the development of a healthy lifestyle by students in an educational institution. This includes the development of a variety of practical skills to strengthen and maintain health through a cognitive-activity approach to their health during the day and subsequently is an important element of socialization in elementary school since on this depends the success of the development of the child's personality, physical and creative potential.

In this regard, it is legitimate to say that the combination of the above factors will contribute to the process of preparing for the delivery of the standards of the TRP complex and the formation of primary school students of skills and knowledge on maintaining healthy lifestyles, the use of physical culture facilities outside the school for the purpose of active recreation and health.

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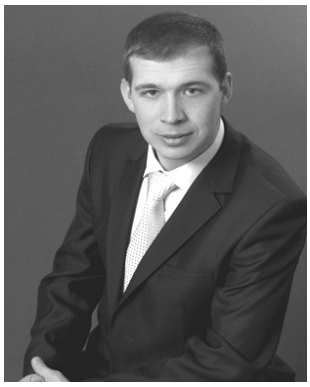
UDC 378

INVESTIGATION OF SCHOOLCHILDREN'S PHISICAL READINESS TO REALISE THE NORMS OF ALL-RUSSIAN ATHLETIC CIVIL DEFENSE SQUADS COMPLEX



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Abstract. The results of schoolchildren in realization of the tests of I-V levels of All-Russian Athletic Civil Defense Squads Complex are presented in the article. The data analysis showed that one of seven of schoolchildren is not able to realize the norms of All-Russian Athletic Civil Defense Squads Complex. That is why it is necessary to deal with the problem of new technologies, means, forms' search to prepare the children to realize the State demands of All-Russian Athletic Civil Defense Squads Complex.

Key words: schoolchildren's physical readiness, I–V levels, State demands of All-Russian Athletic Civil Defense Squads Complex.

Introduction. Currently, Russia is developing a system for organizing and implementing the State Russian Athletic Civil Complex of Standards "Ready to Work and Defense" for students, which includes testing the students at special sports centers [1,2,3,4,6,8], as well as during summer and winter competitions and festivals of various levels [7] and other activities allowing to assess the level of physical fitness among students.

Study methods and layout. To assess the level of physical fitness for meeting the Athletic Civil Complex of Standards "Ready to Work and Defense" among schoolchildren living in Surgut, we used an online service at www.rosinwebc.ru [5]. We tested 8436 schoolchildren, including 4282 boys and 4154 girls.

Study results and discussion. The test showed that out of 1140 boys aged 6–8 (Level 1 of the Standards), 13 boys (1.1%) got the top results (so-called gold badge); 220 boys (19.3%) achieved good results (silver badge); 72 boys (6.3%) had average results (bronze badge); 847 schoolboys (74.3%)failed to meet the standards of the Athletic Civil Complex "Ready to Work and Defense" (Fig. 1).

In the group of schoolboys aged 9-10 (Level 2 of the Standards), only 3 boys (0.2%)out of 1296 got the gold badge; 183 boys (14.1%) showed the results for the silver badge; 57 students (4.4%)got the bronze badge; and 1053 boys (81.1%) failed to meet the standards.

In the group of schoolboys aged 11-12, corresponding to Level 3 of the Standards,14 of 629 boys (2.2%) got the top results (gold badge); 88 boys (14.0%) got good results (silver badge); 49 boys (7.8%) showed average results (bronze badge);478 schoolboys failed to meet the state athletic standards, which is 76% of the total number of participants.

Out of 1236 schoolboysaged 13-15 (Level 4 of the Standards), 28 participants (2.3%) got top results; 166 boys (13.4%) showed good results; 98 boys (7.9%) had average results; and 944 participants (76.4%) failed to meet the state athletic standards.

The results in the group of 1138male teenagers, corresponding to Level 5 of the Standards, were as follows: 63 participants (5.5%) with gold badge; 149 participants (13.1%) with silver badge; 74 participants (6.5%) with bronze badge; 852 schoolboys (74.9%) failed to meet the state athletic standards.

Figure 2 shows the results of physical fitness among schoolgirls tested for meeting the Russian Athletic Civil Complex of Standards "Ready to Work and Defense".

The test showed that out of 1140 schoolgirls aged 6–8 (Level 1 of the Standards), 16girls (1.7%) got the top results; 127 girls (13.5%) achieved good results; 39girls (4.1%) had average results; 762 schoolgirls (80.6%) failed to meet the standards of the Athletic Civil Complex "Ready to Work and Defense".

In the group of schoolgirls aged 9-10 (Level 2 of the Standards), 16 girls (1.3%) out of 1261 got the gold badge; 166girls (13.2%) showed the results for the silver badge; 82 students (6.5%) got the bronze badge; and 997 girls (79%) failed to meet the standards.

In the group of schoolgirls aged 11-12, corresponding to Level 3 of the Standards, 14 of 574girls (2.4%) got the top results (gold badge); 79 boys (13.8%) got good results (silver badge); 56girls (9.8%) showed average results (bronze badge); 425 schoolgirls failed to meet the state athletic standards, which is 74% of the total number of participants.

Out of 869 schoolgirls aged 13-15 (Level 4 of the Standards), 29 participants (3.3%) got top results; 109girls (12.6%) showed good results; 86girls (9.9%) had average results; and 645 participants (74.2%) failed to meet the state athletic standards.

The results in the group of 1161female teenagers, corresponding to Level 5 of the Standards, were as follows: 72 participants (6.2%) with gold badge; 129 participants (11.1%) with silver badge; 56 participants (4.8%) with bronze badge; 904 schoolgirls (77.9%) failed to meet the state athletic standards.

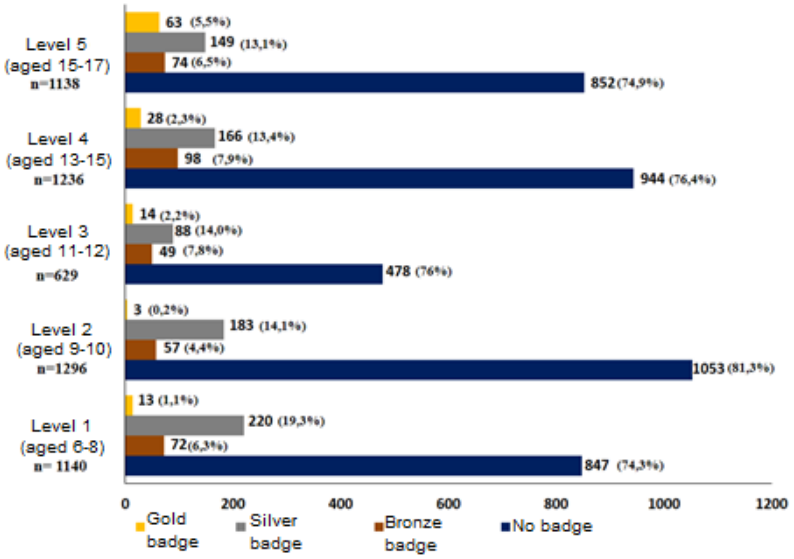

Fig. 1 – Study of the schoolchildren's physical fitness for meetingthe Russian Athletic Civil Complex of Standards "Ready to Work and Defense" (boys and male teenagers, Levels 1-5)

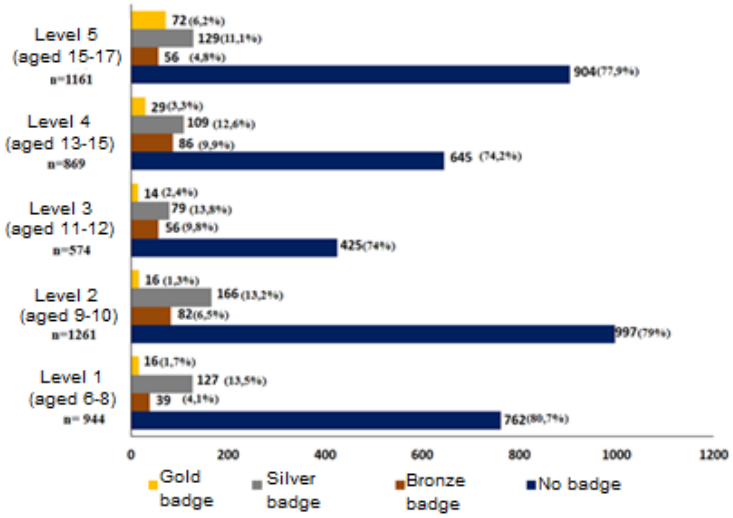

Fig. 2 – Study of the schoolchildren's physical fitness for meeting the Russian Athletic Civil Complex of Standards "Ready to Work and Defense" (girls and female teenagers, Levels 1-5)

Conclusion. Taking the whole municipality of Surgut, out of 5439 schoolboys 112 students (2.1%)managed to meet to state athletic standards with the gold badge, 806 students (14.8%)reached good results and got the silver badge, and 350 (6.4%). showed met the standards with average results, or bronze badge. Out of 4809 schoolgirls, only 147 students (3.1%)showed top results in meeting the athletic standards, 610 students (12.7%) achieved goodresults, 319 students (6.6%) got average results in meeting the state athletic standards.

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UDC 7(075)

PHYSICAL RECREATION THEME IN THE WORKS OF PUSHKIN

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Abstract. The article deals with the questions of the study of the creative heritage of the classics of Russian literature for wider and deeper perception of history of physical culture in Russia.

Key words: physical education, physical recreation, love for the motherland, Pushkin.

The October 1917 events in Russia resulted in our country disrupted the link of times, and the true story of Russia in the Soviet Union had not studied even in universities. We studied the history of the COMMUNIST PARTY and its perceived merits in the development of our country.

To some extent this can be attributed to the study of history of physical culture. Graduates of institutions of physical culture were often able to quite a lot of talk about physical exercise classes in ancient Greece and ancient Rome, but tell what leisure activities there were in Russia, for example, in the nineteenth century, often could not.

But only on the basis of knowledge of the true history and culture of Russia, national shrines is strengthened by love of country, a sense of responsibility for its power and independence, preserving the material and spiritual values.

Such spiritual values applies the creative legacy of the great Russian poet Alexander Pushkin, to whom June 6, 2019 year birthday exactly 220 years. He is a figure for Russian culture is so important that it is well known and remembered by even those who do not read. Any resident of Russia has its own Pushkin.

Is he, or rather, should be, and amateurs and professionals of physical culture. Its high art images simple, modest nature of Central Russia Pushkin not only personally showed how many charms and poetry is these all friends, relatives, but not the estimated us pictures, but also documented testified in his writings, what types of motor activity practiced his contemporaries against the backdrop of this beautiful Russian nature.

In the early nineteenth century it was widely used the word "Recreation". It is a double connotation. Was the break between lessons in secondary schools and recreation, which we now refer to as physical recreation is part of the modern physical culture.

Pushkin himself was a great lover of walks. Even in physics the poem "Dream" he counsels people suffering from insomnia, move more outdoors:

"But the sweetness of a fun night of dreams
Don't think you gift enjoy
In peaceful villages, without any work.
What do you need? Terrible traffic, gentlemen! " [3, 344 p.]

The rightness of such boards to challenge the impossible.

In recent years in our country and abroad received widespread so-called Nordic walking with sticks, similar to skiing. On the Internet you can now easily find a lot of tips on technique exercises fangled walking sticks for this selection, etc. And all this is being touted as a modern technique. And Pushkin even more than two hundred years ago in the same physics poem advised to walk with a stick (the stick for support while walking) and installed it in an elegant poetic form:

"My friends! Take your stick,
Go into the forest, wander through the valley,
Steep hills are tired on top,
And owe the night deep your would be a dream. " [3, p. 344].

The central place in the works of Pushkin took novel Eugene Onegin is his biggest artwork, the richest, the most popular content, having the strongest impact on the destiny of the entire Russian literature. The poet worked on his novel more than eight years-from spring to autumn 1823 year 1831.

Two years of the eight years from August 1824 to September 1826 year Pushkin spent in exile for Mikhailovskoye Pskov Gubernia-the estate of his mother.

In Mikhailovsky Pushkin worked very hard: here created around 100 works of the poet and the Central (with a third on the seventh) chapters of the novel "Eugene Onegin," where most fully represented activities characteristic of that time, being essentially , the primary source for the history of physical recreation in Russia.

According to V.G. Belinskiy, novel «Eugene Onegin» can be called encyclopedia of Russian life. All the action of the novel, all descriptions, all the speeches the actors, despite their simplicity, the complete lack of deliberate effects, thanks to the poetic form, wrapped in particular Poetics. This fully applies to all forms of physical recreation, which are presented in some detail in the novel.

The peculiar nature of attached Eugene Onegin and permanent involvement in the novel the poet. Onegin meets white night with Pushkin in St. Petersburg on a barren embankment of the Neva River.

"Only the boat, oars, waving
To the drowsy floated the river
And us captivated away
Horn and will remove the song …." [4, p 66]

In the history of traditional rowing competitions between the English boat clubs in Oxford and Cambridge universities are the oldest in the world. The first race was held on the River Thames in the year 1829. The novel "Eugene Onegin" occurs during these years and, as can be seen from the above passage, rowing boats in Russia as a form of physical recreation was as popular as hiking and horseback riding.

Interrupting the course of events of the novel, the poet tells us more about his biography episodes of life in Mikhailovskoye:

"In the wilderness voice sounds more rich,
More creative dreams.
The leisure innocent devote,
Wander over my lake desert. [4, p. 69]

Three chapters of a novel he continues this theme:

"Melancholy and rhymes and irked,
Wandering over the lake mine,
Frighten the flock of wild ducks. [4, 127 p.]

"Do you know my classes? – he wrote from Mikhailovsky brother Leo in November 1824, – write my note before lunch, eating dinner late afternoon ride riding." [5]

These horse-riding and hiking, as Pushkin loved very much. They pass a thread through all his work, and, in the words of the poet, "he gave the subject of favorite [4, p. 97] (his characters in his novel «Eugene Onegin») his love of hiking and horse walks on the beautiful places of the surrounding nature. Onegin and Lensky «gathered every day riding». [4, p. 79]

Here's how normally spent summer days Onegin in the village:

"Walking, chtene, sleep, deep
Forest shade, murmur jets
Check obedient horse overzealous." [4, 128 p.]

Just a novel about hiking the main heroes and heroines, the author mentions more than ten times, and the horse is more than fifteen. In Pushkin's poem "Autumn", "How fast the field, suddenly open", "Once again I visited» horseback riding as a form of recreation are the basis and the thread of the plot. In the story "Lady-farmer" this kind of recreational activities also occupies an important.

About other recreational events Onegin read:

"In the seventh hour he came up in the summer
And sent light to crawl
Under the mountain river;
Singer Gjulnary imitating,
This crossed the Hellespont. [4, 127 p.]

Here it is necessary to clarify that the singer Gjulnary-Byron. Gulnara is the heroine of his poem "The corsare." Byron was an excellent swimmer and once swam across the Dardanelskij Strait (Hellespont-ancient Greek name of Dardanelskogo Strait).

These days the guides in the Museum-estate "Mikhailovskoye" often quoted this passage from the novel, while on the porch of the House, offering exactly the same view of the most picturesque and cleanest even now the river Sorot, emphasizing the love of the poet such early each summer day at the Mikhailovsky.

But summer comes late autumn, and the protagonist of the novel raises this question:

"In the wilderness, what to do in this time?
Go for a walk? The village is sometimes
Unwittingly bothers look
Monotonous nudity
Jumping riding steppe harsh?
But the horse, dulled edge horseshoe
Wrong on treacherous ice
And wait for that fall. [4, 129 p.]

In the late autumn and winter is visibly changed the scheme of motion activity of Eugene Onegin:

"With a dream sits down in the bathtub with ice
And after a whole day at home
One in the calculations of the immersed,
Blunt cue armed,
He two billiards ball
Played in the morning. [4, 130 p.]

Nowadays, there are many types of billiard game. On many types of hosts the World Championships, which are consecrated to our and foreign tv. It is believed that the game of billiards well develops tactical and strategic thinking. So, Onegin, playing in it, was by no means empty thing.

Especially it would be desirable to tell about immersion in "barrel with ice. This procedure applied Russian cold Onegin immediately after sleep. Now, however, many Rugby and football clubs in our country and the world with great success using this method for a speedy recovery after traumas.

In the bath house of Pushkin in the Mikhailovsky visitors show a reconstruction of the barrels, which had the pleasure to submerge himself a great poet.

Pushkin himself was very fond of such procedures. In the poem "Autumn" he writes: "the health of my useful Russian cold '. [2.112] Loved poet and a Russian bath-house, as well as:

"And the first snow from roofs baths
To wash face, shoulder and chest. [4, p. 185]

In the poem «How fast the field, suddenly open» the poet once again recalls the usefulness of hardening:

"Useful Russian health
Our health improvement frost". [2, 101 p.]

Rereading all the lines familiar since childhood, it is impossible not to admire the poetic description of skating: "Boys joyful people skates loudly cuts ice." [4, 129 p.] In the poem "Autumn" read:

"As fun shoes iron sharp legs,
Slide the mirror standing, smooth rivers". [2, 111 p.]

In short article cannot be parsed in detail all forms of physical recreation, found in the works of Pushkin, but you can simply list the previously unspecified forms of active recreation for children and adults in different seasons of the year. This, of course, sledding and tobogganing, torch, chess game, shooting lessons, kids and adults loved the round swing.

Therefore, rethinking in the right vein, the creative legacy of the great poet, we begin to understand the history of our physical culture at its finest and authentic samples.

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UDC 37

MODERN TENDENCIES OF PRACTICE-ORIENTED TRAINING OF MILITARY SPORTS TRAINING

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Abstract. The article discusses the possibilities of practice-oriented training in the process of the physical training of servicemen with the aim of improving the applied skills of firing their regular small arms using modern pedagogical technologies. This process initiates the improvement of educational system management mechanisms through the use of information and methodological materials, as well as communication networks; improvement of the methodology and strategy of selecting content, methods and organizational forms of training, education, corresponding to the tasks of training in the modern conditions of informatization of society; the creation of methodological training systems focused on the development of intellectual potential, the formation of skills to independently acquire knowledge; creation and use of computer testing, diagnosing methods of monitoring and assessing the level of knowledge of students. The article discusses the innovative approach presented by the model of practice-oriented training of military personnel in the educational process of the university, describes in detail the structure of the model, reveals the modules: targeted, organizational and informative, effective.

Key words: sports shooting, physical training of military personnel, practice-oriented training, pedagogical technologies.

Within a contemporary higher educational institution and its educational environment the task to prepare highly skilled and professional military men is currently of vital importance. Modern times put forward new demands to the professional training system of the military to shoot regular small arms. Shooting a weapon is the applied movement skill necessary for all military men in their professional activity which is formed in the course of physical preparation.

In relation to this, the issue to improve the quality of training and to perfect the training technologies of military men has become actual. In view of this, it is necessary to present a multifaceted and multipolar system of training taking into account the arising questions.

Modern researches and their implementation in the preparation process allow us to draw a conclusion on the possibility of educational process perfection by increasing the number of lessons which are based on the use of information technologies. The given technologies allow us to intensify the training process leading to the solution of the problems connected with intellectual and physical ability development and to the improvement of the teaching and educational process.

The profession of the military obliges students in military higher educational institutions to constantly improve the knowledge, skills and the abilities connected with their professional activities. As a result, the preparation process in such institutions is considered today a multipolar didactic system which constantly develops and is based on modern technologies application to train shooting skills in military men. The given system is to consider individual features of each and every student since effective professional training, protection of state and Fatherland [2,4,7] are the principle tasks of military men activities.

While conducting researches to assess shooting level, modern methods have been applied: the analysis and professional experience generalisation, as well as pedagogical model elaboration to improve the quality of professional development, pedagogical experiment.

In the course of the experimental research the following issues were studied:

the reference materials connected with military expert preparation process;

the program documentation which regulates professional training system in higher educational institution;

the standard-instructive documentation as well as curriculums and plans of training and educational work; training, seminars, lectures to uncover experience of the practice-oriented training; the practice-oriented lessons; lectures, seminars, practical training during which computer technologies to drill ways of shooting were widely used; experience research on professional training in higher educational institutions abroad [6,18,20,21].

The analysis of standard and local documents, generalisation of modern methodological approaches, implementation of modern innovative approaches have allowed us to create a pedagogical model focused on the increase in the number of practical lessons to perfect student skills in shooting a weapon (the practice-oriented training).

The pedagogical model in the modern literature is considered as an image which reflects structure, essence, features of professional training being comprehensive and logically finished.

Now the problem of computer technologies realisation is put to practice. Such an approach has become widely used during professional student training.

In the contemporary literature it is pointed out that innovative computers are a new, extraordinary, unprecedented part of various components creating psychological-pedagogical conditions in the modern system of sportsman professional training to shoot bullets [12,17,19].

In the course of the conducted researches it is revealed that pedagogical conditions are a set of measures integrating specific content, principles, methods, forms directed at perfecting student preparation to shoot regular small arms. Professional development or professional training of the military has the following aspects of the content: gnoseological, planning, organizational-constructive, cognitive, creative, etc. These aspects have been intoduced into the substantial-remedial module

representing a pedagogical model of the practice-oriented training to shoot.

The main objective of the practice-oriented training connected with shooting small arms is the preparation of the qualified expert who must possess deep specific knowledge, professional competancies, skills in handling a weapon.

In order to have the most accurate idea of a student's professional training the pedagogical model of the practice-oriented training is going to be described below.

We have developed a pedagogical model of the practice-oriented training to shoot as an external image of a multipolar innovative training complex functioning in the educational system. The proposed pedagogical model consists of three innovative modules: target, organizational-substantial and effective.

The target module integrates the following stages:

– individual-personal subjective teacher-student interaction;

– modern level of program-methodological support;

– use of the integrated-classical and innovative content, practical technologies, forms and methods in the educational process of a higher educational institution;

– a subjective individualization in the practice-oriented training.

The organizational-substantial module integrates a stage of experience formation to perform a well-aimed shot.

The effective module unites the criteria of activity assessment and result.

According to the represented modular program of continuous practice, the module has the characteristics [14, 15] presented in Drawing 1.

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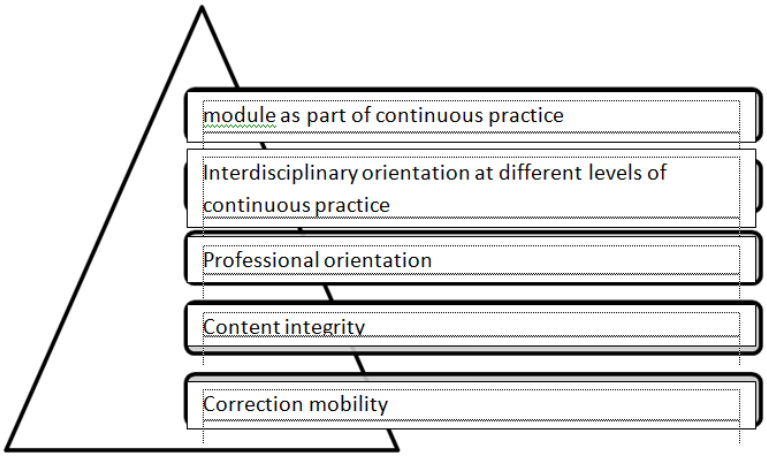

Drawing 1 – Module characteristics

The primary goal of modular training is the organisation of continuous practice which will guarantee the satisfaction of student motives. The given approach guarantees the goal setting, the content confirmation and ways of experts preparation.

The practice-oriented training implies the creation of cyclic management conditions to achieve the desired goals [1 ,5].

The application of the modular approach in training facilitates the dynamic development of modern didactic theories, synthesising their features. Such a combination has allowed us to use various techniques of content selection, representation and organisation technologies of training more successfully widely using computer technologies [8, 11, 20].

The carried out analysis has shown that modular training implies:

– development of component parts of student professional training and their visual representation;

– composition of the accurate activity organisation structure;

– consecutive representation of theoretical material;

– material selection considering student specific features;

– modern methodical material availability during practice.

The proposed ideas allow us to draw a conclusion that the modular approach to the practice-oriented training has a salient training structure, high variability of material selection and training methods depending on specific student features.

While developing the training model to shoot during student professional training we were guided by theoretical researches of the following scientists: P.R. Atutov, S.Ya. Batyshev, R.V. Belyaev, V.P. Bespal'ko, Yu.K. Vasil'ev, V.I. Zhuravlev, L.A. Kolosova, A.M. Kublanov, M.M. Kublanov, V.N. Mashin, V.A. Slastenin, N.N. Chistyakov, S.N. Chistyakova, etc.

Profound studying of theoretical and applied aspects of pedagogical model of the practice-oriented training to shoot as well as first-hand experience have allowed us to create the modular program of the directed practice of professional student training improving the training quality in the educational process of a higher educational institution.

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UDC 796

SAFETY MEASURES AND INJURY PREVENTION DURING THE EDUCATIONAL ORGANIZATIONS OF THE MINISTRY OF INTERNAL AFFAIRS OF THE RUSSIAN FEDERATION

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Abstract. Article is devoted to questions of prevention of traumatism on classes in physical training. The author discusses basic reasons of getting injured by students and measures of their prevention at educational and training occupations.

Key words: physical training, prevention, traumatism, security measures.

Introduction. In practice of the physical training and sport connected with development of difficult coordination actions and especially fighting methods of fight bruises, scrapes, grazes, scratches, damages of the copular device of joints, a muscle strain often take place, is more rare – dislocations, bone fractures, wounds. During educational and training process, successful prevention of traumatism is possible only at knowledge and elimination of the reasons of their emergence.

Purpose. Scheduled maintenance on prevention of the facts of traumatism on classes in physical training is one of the most important tasks of teachers, trainers, heads of occupations, and heads of the educational organizations of the Ministry of Internal Affairs of the Russian Federation [2.5]. For this purpose in recent years, the Ministry of Internal Affairs of the Russian Federation published a large number of normative documents – orders, instructions, letters – in which it is told about need of high-quality improvement of combat training of law enforcement officers.

Justification. As you know, the purpose of physical training, which is an integral part of combat training, is to educate and maintain physical readiness for the successful implementation of operational, official and combat tasks, as well as skillful and legitimate use of physical force [1].

For successful injury prevention in training sessions and in the process of professional-applied physical training, it is necessary to focus on the factors contributing to the causes of injuries, which include [1, 4, 5]:

- deficiencies in the organization and conduct of training sessions, including insufficient warm-up, warm-up without taking into account age, gender and physical fitness, speeding up the load, the density of people training per unit area of the gym, etc.;
- non-compliance with the methods of teaching and training, incl. deviation from the principles of gradualness, systematicity, consistency, as well as the wrong spatial organization of trainees and sports equipment;
- unsatisfactory educational work with trainees, leading to their indiscipline, incl. Failure to follow the instructions of the leader of the lesson, transfer to another place of employment without his instructions, haste, recklessness and negligence when performing the exercise;
- lack of equipped places of employment in accordance with the material and technical rules and conditions of security, including malfunction of sports equipment, insufficient lighting, lack of necessary ventilation, non-compliance with hygienic requirements, etc.;
- disproportion of training requirements and physical or mental fitness of the trainees;
- the lack of means of insurance and assistance in the implementation of techniques associated with risk and danger, especially when performing tasks on combat techniques of struggle and swimming;
- non-compliance with medical requirements;
- pre-morbid hidden conditions, the presence of foci of infections;
- individual features of the body;
- states of fatigue, overwork and overtraining.

The basic principles of injury prevention in the classroom for physical training are [5, 6]:

- the correct method of organizing the training process;
- ensuring the proper condition of places of employment, sports equipment, projectiles, clothing and shoes for training;
- the use of protective devices and timely medical supervision.

For injury prevention the head of occupation has to exercise continuous pedagogical control as behind all collective engaged, and each member [2, 4]. The obligation for observance of the measures excluding a possibility of thermal and solar blows and other unconscious states and also frostbites (a practical training is given in physical training at air temperature not higher than 30 ° C and not below in the open air – 20 ° C at a speed of wind up to 10 m/s, and in badly ventilated and not heated rooms at air temperature in them it is not higher than 25 ° C also of not lower than 15 ° C) is assigned to it. At the same time, at control occupations there has to be a health worker of the medical organization of a system of the Ministry of Internal Affairs of the Russian Federation [1]. In addition, the teacher (trainer) has to:

- to have at itself the accurate plan abstract of holding educational and training occupation and to strictly adhere to it;
- it is obligatory to know security measures which have to be announced training before the occupation;
- to maintain appropriate discipline, to differentiate the offered loading in a context with individual approach to each training.

Conclusions. Generalizing the above we will note that despite observance of security measures and preventive measures for injury prevention, accidents not a rarity in the course of physical training [3]. And for violation of the specified requirements and measures personal responsibility is born both heads of occupations, and training.

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CORRECTION OF OVERWEIGHT STUDENTS

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Abstract. Reduced physical activity in combination with a violation of the diet and improper lifestyle of student youth leads to the emergence of excess weight. On the example of the project "Catch in 24 days" it is shown how it is possible to achieve weight adjustments and reduce body volumes without harm to health in a short time.

Key words: weight, project, health, exercise, diet.

Introduction

Weight loss is one of the most pressing issues that have worried both women and men at all times. This problem may be superficial, and be solved quite simply, and may be more profound, and associated with certain disorders in the body. If weight gain is not associated with the occurrence of various diseases of the endocrine system, that is, with serious metabolic disorders, but is the result of malnutrition and an unbalanced lifestyle, then this situation can be corrected quite easily using the "four golden rules of weight loss".

Many people, whowant to get rid of the hated kilograms, are constantly in the process of searching for a "miracle - recipe" that would help to quickly and irrevocably solve the problems of overweight. Meanwhile, the main and the first rule of successful weight loss says that effective weight loss can occur when there is a shortage of calories and increased physical activity.

In order for the arrow of the scales to begin rapidly showing the "minus" it is necessary to reduce the caloric content of the main meal, that is, everything that is eaten at breakfast, lunch and dinner. The second condition when losing weight - is one who is losing weight should not feel hunger, which can occur when the stomach is empty. The feeling of hunger can and should be quenched by drinking clean water, eating some fruit, chicken or meat [1].

In order for the body not to experience a shortage of food, a person who is losing weight needs to include a lot of food in the diet, which contains fiber. For example, conventional bran contains almost no calories, but provides saturation for a long period of time.

It is also recommended for those who lose weight, to take multivitamin complexes in the period of active weight loss, which saturate the body with all the necessary vitamins and substances [3]. It is very important that the food a person consumes in the period of weight loss, is tasty, beautiful and gives the person pleasure. Therefore, in order for a person to "sit" on a diet comfortably, it is necessary from time to time to allow yourself to eat something tasty, it may be a small amount of a favorite product that brings pleasure.

Methods and organization of research

The purpose of the study is to prove that over a month of regular workouts and proper nutrition, you can lose more than 5 kg of weight while maintaining your health.

As part of the study, a project called "Catch up in 24 days" was held, which was organized by the fitness club "Fitness life".

The project "Catch in 24 days" lasted from January 19 to February 12, 2019. 16 participants were casting and the project started on January 19, 2019. The study was conducted on the example of a team whose participants were second-year students of the Saransk Cooperative Institute: Maxim Sutulov, EvgeniyaAbramova, Yury Smirnov and Ekaterina Sycheva.

After the first training and assessment of the physical development of the participants, each of the participants was given a diet, which had to be followed throughout the project.

You can observe the initial volumes in Table 1.

Trainings were held every day, 6 times a week. Mondays, Wednesdays and Fridays were functional training. On Tuesdays, Thursdays and Saturdays, cardio workouts were held on the treadmill. Subsequently, the remaining three weeks of cardio training were conducted on Sundays.

The training complexes for which the participants were trained are listed in Table 2.

At the first stage of losing weight, water containing toxins and the contents of the intestines, usually along with all the debris, is retained in the body tissues [2]. This usually occurs at stage 1 of weight loss with any dietary restriction - hard and unbalanced or balanced and correct. In a short time, this can take from 3 to 10 kg (depending on the initial weight). It is necessary to return to the former unbalanced diet at this stage - everything returns again and with interest. Control weighing took place every week.

At the second stage, the weight goes slower, but the volumes go away - this is internal fat, very light, but volumetric. And it is a great joy that it leaves the internal organs (without a balanced and proper nutrition and regular cardiovascular exercise - this will not work). After that, the "plateau" effect will inevitably come - in a new way, the organs will take their places inside the body and reorganize into more energy-saving and efficient work. The results of the third measurements are shown in Table 4.

According to online sources: at the third stage of weight loss, the weight stops and at least 0.5 kg is spent per week.

But our participants showed a completely reverse version of this stage.

The results of the final measurements you can observe in Table 5.

Table 1 – Evaluation of physical development of the participants before the start of the project

Parameters	Maxim Sutulov	EvgeniyaAbramova	Yury Smirnov	Ekaterina Sycheva
weight	98,500	84,850	93,150	84,800
Chestcircumference	37	108	111	106,5
Waistcircumference	111	105	98	97
Girthofthebuttocks	105	111	103	116
Thighcircumference	106	67	64	69

Table 2 – Workout complexes

1 workout	2 workout
Circular (20 minutes) 40 jumping rope the bar - 20 seconds swinging ropes - 30 seconds press - 10 times 10 minutes Hiit workout	Circular (5 laps) push-ups (from the knees) - 7 times berpie - 5 times run in the bar -30 seconds climb to the cabinet (5 kg bag) - 10 r per leg 10 minutesHiitworkout

Table 3 – Assessment of physical development 27.01.19

Parameters	Maxim Sutulov	EvgeniyaAbramova	Yury Smirnov	Ekaterina Sycheva
Weight	89,300	78,200	86,600	73,200
Chestcircumference	101	101	102,5	91
Waistcircumference	98,5	100,5	92	86
Girthofthebuttocks	101,5	107	102,5	107
Thighcircumference	56	64,5	62	65
Girthof a biceps	33,7	33,7	35	29

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Table 4 – Assessment of physical development 04.02.2019

Параметры	Maxim Sutulov	EvgeniyaAbramova	Yury Smirnov	Ekaterina Sycheva
Weight	86,350	76,250	81,400	71
Chestcircumference	98,5	98,5	99,5	90
Waistcircumference	95	97,5	89,6	84
Girthofthebuttocks	100	104,5	98	104,5
Thighcircumference	55	62	59	62,5
Girthof a biceps	33,7	32,5	34	27,5

Table 5 – Assessment of physical development at the end of the experiment 12.02.19

Parameters	Maxim Sutulov	EvgeniyaAbramova	Yury Smirnov	Ekaterina Sycheva
weight	86,350	76,250	75,900	70,100
Chestcircumference	98,5	98,5	93	88
Waistcircumference	95	97,5	81	83
Girthofthebuttocks	100	104,5	93	100,5
Thighcircumference	55	62	55	60
Girthof a biceps	33,7	32,5	33	28

Results and its discussion

Comparing the indicators of physical development, it should be noted that due to the correct balanced nutrition and regular training, Sutulov Maxim lost 16 kg of weight; 16.5 cm in chest; 16 cm in waist size; 9 cm in the volume of the buttocks; 11.5 cm in the volume of the thigh and 6 cm in the volume of the biceps.

AbramovaEvgeniya dropped 6 kg 300 grams; 11 cm in breast volume; 18 cm in waist; 11 cm in the volume of the buttocks; 6, 5 cm in the volume of the thigh and 4 cm in the volume of the biceps.

Smirnov Yury dropped 17 kg 250 grams; 18 cm in chest size; 10 cm in the volume of the buttocks; 3 cm in biceps volume; 17 cm in the waist and 9 cm in the thigh.

Ekaterina Sycheva dropped 14 kg 700 grams; 18.5 cm in chest volume; 15.5 cm in the volume of the buttocks; 2 cm in biceps volume; 14 cm in the waist and 9 cm in the thigh.

After the project, the participants left completely healthy, without any disturbances in the central nervous system, digestion and the musculoskeletal system.

The results that we have achieved for the month are also holding; there are no additions in weight or in volumes.

Conclusion. Strictly adhering to a properly formulated diet, and regularly performing a special set of physical exercises, it's really possible to lose more than 5 kg per month. It may be recommended to students in their free time to adjust weight to attend fitness clubs, work under the guidance of professional fitness instructors, and apply nutritionist advice in a complex.

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TRANSFORMATION OF PHYSICAL EDUCATION PARADIGM IN HIGH SCHOOL BASED ON NEW PRINCIPLES OF EDUCATIONAL PROCESS MANAGEMENT

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Abstract. The article examines problems, which exist in the active system of PhE of the students, who are getting professional education. It is proposed to change PhE paradigm basing on screening and monitoring of regulation systems state, health and adaptation in the process of PhE classes. Prenosological control can help to optimize all the components of educational process: to enrich contents, to diversify forms, instruments and methods of PhE, to rise conditions of students and creativity of teachers. The article mentions experimental data of students' screening with PHC "Varicard" during the process of education.

Key words: physical education, students, health, adaptation, organism regulatory systems, variability of hearth rate, program and hardware complex (PHC) "Varicard"

Introduction. The health potential and commitment to a healthy lifestyle of 4.2 million young Russian citizens studying at universities continue to decline. There has been a differentiation: 10-15 % of students regularly engage in physical culture and sports, and the predominant number of students has various diseases or their combined forms. This is caused by a complex of factors of social and urban ecological environment, which prevail over natural and climatic influences, with the exception of sub-extreme and extreme climate of the Arctic, Zvpolar and Northern territories of Siberia [3].

Among the urban environmental risk factors leading are: educational overload, change in lifestyle of young people caused by the era of digitalization, hypokinesia, eating and sleeping disorders, socio-psychological and urban environmental stress. They act in a complex and lead to an increase in morbidity, a decrease in the level of health and performance, an increase in the risks of various pathologies [1, 6].

The prerequisite of prenosological States (transition from health to disease) and the formation of nosological forms of pathologies is the depletion of the psychophysical ability of a person to adapt and the reduction of its reserves in the conditions of the total increased loads in the environment [3,5]. In addition to statistical data on the incidence of young people in the Russian Federation, a significant and large-scale confirmation of the low level of youth health were the results of the GTO standards, which only 5-10% of students were able to fulfill [4].

Despite the improvement of sports infrastructure in major cities, including universities, the transition of universities to the new GEF-3+, the FV fails to achieve significant health-developing results.

In the context of worsening demographic and socio-educational situation in modern Russia, it becomes a priority and necessary to take effective measures to transform the paradigm of physical education of future professionals. In addition, the low level of health of workers, including young people, contributes to a decrease in labor productivity in Russia 3-4 times, and according to the latest data in some segments of the labor market, even 50 times compared to economically developed countries.

Despite the constant attention of the pedagogical community of the departments to the optimization of the content, forms, methods and means of physical training, significant progress in solving the problem of training healthy, not sick professionals in Russian universities, has not yet been achieved.

In our opinion, approaches to the transformation of the educational process in higher education institutions are revealed in the creative application in practical work on the pedagogical imperative of the great teacher Ushinsky KD:"Before you influence the child in all respects, it is necessary to study it in all respects." In modern realities, this time-tested requirement of pedagogical science leads to the understanding that the driver of the transformation of the FV paradigm can be modern digital IT-methods of diagnostics of indicators of functional state, health and adaptation of subjects of education – students [7]. Registration and monitoring by screening methods and monitoring the dynamics of these important characteristics of life of young people is a priority task of the EF in universities[2].

The need for control is dictated not only by environmental (exogenous) conditions, but also by the internal (endogenous) state of the contingents of students undergoing a complex youthful age period of ontogenesis, which has an integrative character and includes: 1. completion of physical development, 2. active stage of personal formation, 3. the process of intensive socialization in the form of professional development [3]. In the conditions of intensification of professional training due to the explosive growth of educational information, caused including competition between universities and countries in the education market, monitoring the health status and the processes of adaptation of students to new conditions of education becomes absolutely necessary. The solution of this problem requires the creation of a health management system (CPS) of subjects of education in universities, which will qualitatively improve the final results of not only FV, but in General the educational activities of the University, the creation of increase its competitiveness.

A positive example in the creation of CPS students can serve as the Vladimir state University. A. G. and NG Centenary, where for a long time there are structures to promote the health of students [2].

Prenosological examination of the dynamics of health indicators and adaptive capabilities of the body of stu-

dents provide valuable opportunities for the management of the educational process (up) FV:

1. timely management of health and functional state of students in the educational environment

2. flexibly manage the process of physical education by selecting more effective means and methods of training

3. to carry out the correction of health by means of physical education

4. to carry out prevention of risks of fatigue, overwork, overtraining engaged in

5. to individualize the developmental impact of the funds EF

6. to ensure the safety of the student, to minimise the risk of sudden catastrophic disorders of the cardiovascular system, Central nervous system and other vital systems of the body

7. effectively increase the fitness and physical fitness of students

8. to increase motivation of students by visualization of developing

lesson results

9. the technique serves as a tool for the formation of healthy lifestyle among young people by linking actions to develop health and the results of improving the FS, adaptation and health levels

10. the technique contributes to the prevention of disorders of healthy lifestyle and destructive behaviors in the youth environment, which are visualized in the deterioration of adaptation and health indicators

Thus, the application of the HRV control method can effectively transform all the components of the educational process of FV.

The purpose of FV at the University is formulated in accordance with the new paradigm: "to Optimize the process of FV by digitalization of screening and monitoring of health indicators, adaptation and adaptation reserves of students»

Content FV: not aimed at unification and differentiation and individualization of the educational process

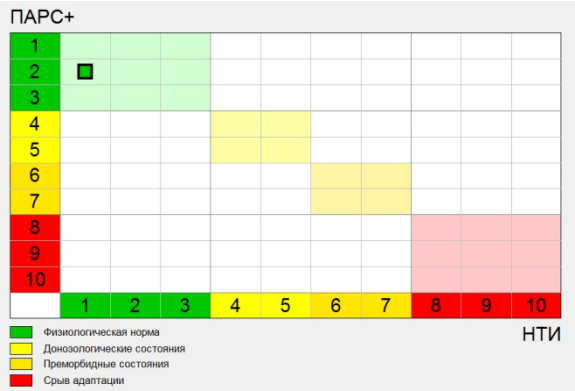
Means, forms, methods – increasing diversity based on the interests of those involved.

Status of students: controlled by screening and monitoring, allowing to visualize the progress of each student on an individual trajectory of health development

Qualification of teachers: qualitatively changing, as the conditions for creative management of the educational process.

Method of research. Screening technique to identify risk groups among the subjects and monitoring as a process of long-term state control in the examined groups began to be developed 35 years ago by prof. R. M. Bayevsky [1], on the basis of mathematical analysis of human heart rate variability (HRV). Indicators of health and adaptation as health measures are obtained by recording the ECG and its analysis by software and hardware complex (PAC). The change in the activity of regulatory systems (MS) is observed in the range from the age norm to the depletion of adaptive capabilities, which increases the risks of diseases.

Research result. A survey of students of the College MGADA Zelenograd at the beginning and end of the school year with the use of agro-industrial complex "VARICARD-Express" to identify changes in the functional state of students under the influence of academic loads. For rice. 1.2 the functional state of first-year students (n=27, mean age 16.4 years) and its General (average group) characteristics obtained at the beginning of the school year and at the end of the school year are presented.



Rice.1 – State of regulatory systems 1st year students at the beginning school year

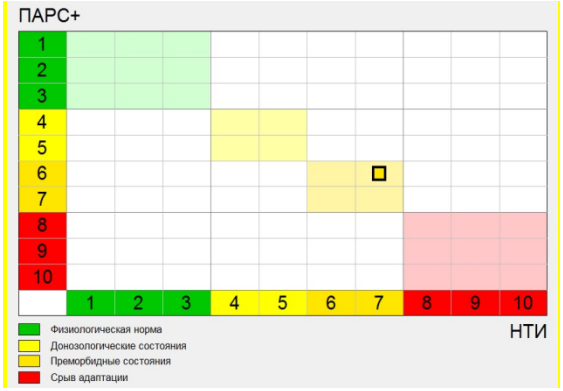


Fig.2 – State of regulatory systems of the academic year 1st year students at the end of the school year

From the above data it can be seen that at the beginning of the school year the state of freshmen corresponds to the "functional norm", adaptation and health at a sufficient level to ensure adaptation to the environment.

At the end of the school year, first-year students have a functional state, adaptive capacity and health deteriorate, students move into a functional state of "pronounced tension" of regulatory systems, reduce adaptive capacity and health. Adverse health changes occurred under the influence of a complex of factors of the learning environment: high intensity and large amounts of information loads during the school year, hypokinesia, educational stress. Tables 1,2 give a General description of the state of the regulatory systems of the body of first-year students at the beginning and end of the school year.

Table 1 – General assessment of the first-year students ' regulatory systems College at the beginning of the school year

Общая оценка состояния регуляторных систем

Характеристики системы регуляции сердечного ритма	Частные диагностические заключения	Оценки в баллах	Откл. от моды
А. Суммарный эффект регуляции	Умеренная тахикардия	1	-0,19
Б. Функции автоматизма	Нарушение ритма не выявлено	0	0,33
В. Вегетативный гомеостаз	Равновесие симпатического и парасимпатического отделов вегетативной нервной системы	0	0,33
Г. Вазомоторный (сосудистый) центр	Умеренное усиление активности вазомоторного центра, регулирующего сосудистый тонус	1	0,12
Д. Симпатический сердечно-сосудистый П.Н.Ц.	Нормальная активность подкоркового сердечно-сосудистого центра	0	1,29
Показатель активности регуляторных систем ПАРС+ (IRSA+): 2 (-0+2)			**НТИ: 1**

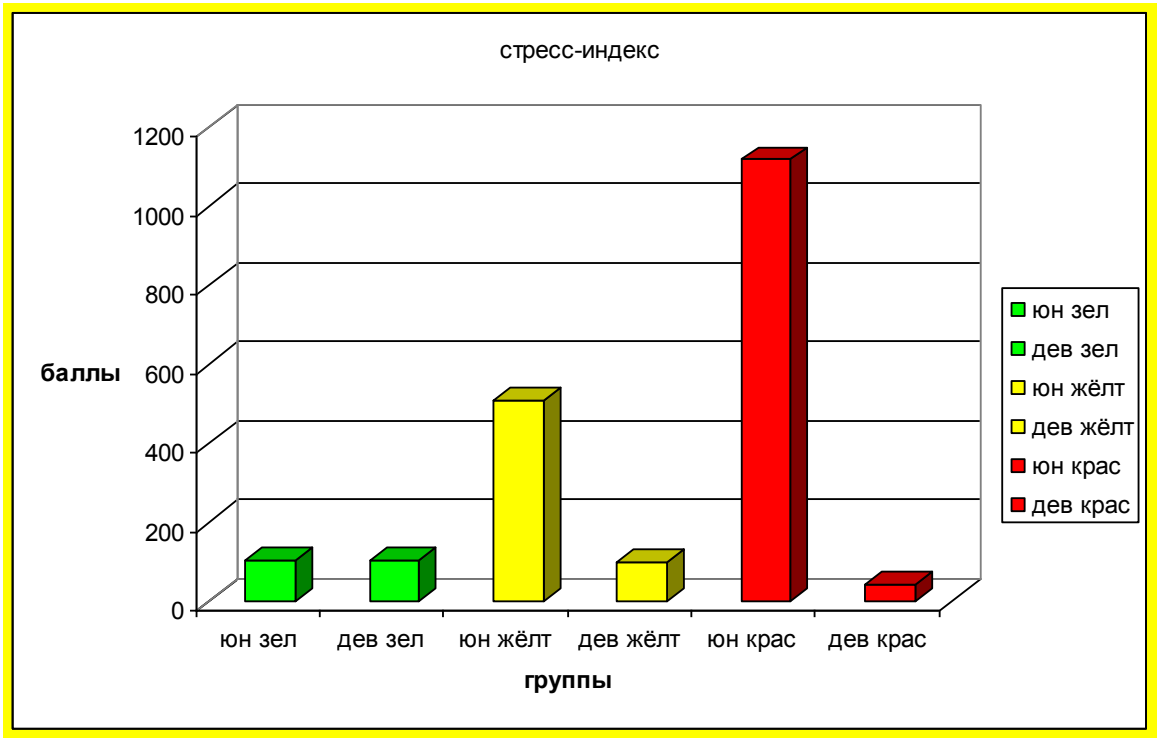
Table 2 – General assessment of the first-year students ' regulatory systems College at the end of the school year

Общая оценка состояния регуляторных систем

Характеристики системы регуляции сердечного ритма	Частные диагностические заключения	Оценки в баллах	Откл. от моды
А. Суммарный эффект регуляции	Умеренная брадикардия	-1	-3,59
Б. Функции автоматизма	Выраженная аритмия	-2	-4,12
В. Вегетативный гомеостаз	Выраженное преобладание парасимпатической нервной системы	-2	-4,12
Г. Вазомоторный (сосудистый) центр	Нормальная активность подкоркового сердечно-сосудистого центра	0	-0,12
Д. Симпатический сердечно-сосудистый П.Н.Ц.	Умеренное ослабление активности симпатического сердечно-сосудистого центра	-1	0,13
Показатель активности регуляторных систем ПАРС+ (IRSA+): 6 (-6+0)			**НТИ: 6**

From the data given in table 1 it is clear that the state and its General characteristics correspond to the functional norm in first-year students who have just started training, without the impact of training loads on them. In table 2, the study at the end of the school year under the influence of a set of factors observed increase in adverse health changes: bradycardia and severe arrhythmia, decreased sympathicotonia. Traditional occupations of the PV has not had a preventive action to prevent the loss of health is influenced by the learning environment.

Figure 3 presents the data of such indicator as stress index in the surveyed students depending on the state of regulatory systems and gender factor.



Rice.3 – Stress index values for College students with different levels of adaptive capacity and depending on gender at the end of the school year

These data show that the boys. Having "sharply expressed functional tension", regulatory systems, leading to "failure of adaptive mechanisms", the stress index is significantly increased in comparison with girls, which indicates a more pronounced reactivity and reduced stability of the regulatory systems in males, starting from adolescence, to the effects of the learning environment. The obtained results indicate the gender-dependent features of the regulation of adaptation processes and health in men, which is manifested in demographic data on increased mortality and a decrease in the life expectancy of the male population compared with the female one for 11-14 years [6]. For a detailed study of socially significant problems of health and adaptation of men, it is proposed to develop a new interdisciplinary field of research "health genderology".

Studies have shown that the use of HRV method [2,7] for screening and monitoring of the functional state of MS, adaptation and health of students opens up opportunities for innovative work of teachers of FV. Transformation of traditional approaches into a new paradigm of digitalization of methods of time-prolonged diagnosis of MS, adaptation, health, allows to operatively assess individual and gender-age characteristics of response to the effects of training factors and physical activity, It will increase the effectiveness of training on the basis of "feedback" with the students, ensuring the availability of information on the dynamics of functional and regulatory indicators, which will lead to the creation of a "new FV" in the OU of vocational education.

Conclusions: 1. The effect of the complex factors of the learning environment on students leads to a decrease in their adaptation and health; 2. Classes on existing programs do not prevent the deterioration of health and reduced adaptive capacity in the learning process; 3. Boys have lower tolerance to the negative effects of educational factors than girls; 4. The use of digital-based screening and monitoring of adaptation and health should lead to the creation of a "new EF" in vocational education.

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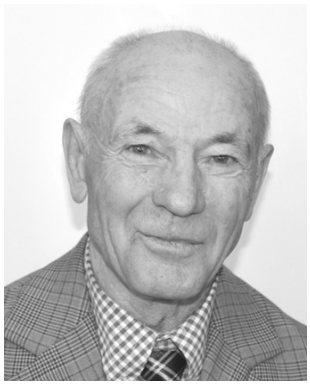
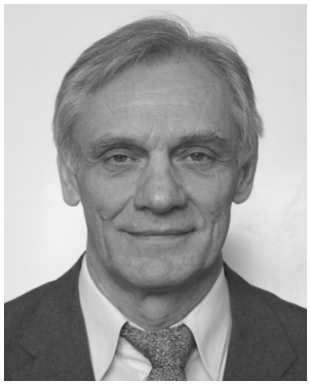
UDC 37

THE STUDY OF THE BIOMECHANICS OF JUMPING EXERCISES SPORTSMEN OF HIGH QUALIFICATION





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Abstract. This article presents the results of a study of indicators of different exercises that use long jumpers in training. Shows the similarities and differences in building the rhythm of movements with the implementation of a holistic long jump takeoff, presents recommendations to use exercises in different periods of training jumper.

Key words: long jump, rhythm of movements, length and frequency of steps when a deflection.

Urgency. The result in the long jump depends on the speed of the run, the accuracy of the jumper's hit on the bar of repulsion, the morphological parameters of the jumper [2]. The result of the jump in case of inaccurate hit on the bar of repulsion can be reduced. This results in a reduction in the result, which is measured from the bar of repulsion to the landing site [3].

It is known that the result in long jumps is largely determined by the average speed that the jumper develops during the run. However, it is important to keep typed in the run-up speed during the run ottalkivayas long jump. The desire to achieve maximum speed can be accompanied by a variable change in the length and frequency of steps, the value of which varies with the change of the run-up parameters. Biomechanical analysis of run-up characteristics, performed earlier, indicates the presence of a close correlation between the run-up rate and the jump result, the correlation coefficient between which fits into a narrow corridor between 0.83-0.94, indicating the presence of a high relationship between these parameters[2].

In long jumps, the stride length increases by the end of the run, but decreases at the last step, which allows the jumper to set the flight path that determines the longest jump length [1]. When choosing options to achieve maximum speed in the run-up and accurate hit the bar repulsion jumpers for years to work out a certain rhythm of the run. This usually happens in training, when the jumpers perform long jumps with a run, including a different number of steps. Comparison of the indicators of long jumps performed from different run-up is of interest for optimization of the parameters of repulsion in long jumps, which makes this study relevant.

The aim of the study was to conduct a comparative biomechanical analysis of the parameters of run-up in long jumpers performing model exercises, often used in the training of athletes in this sport.

Methods and organization of research. The study involved 34 long jumpers with qualifications not lower than candidate master of sports and master of sports.

In this study, a biomechanical analysis of kinematic parameters was performed when performing a long jump in the following conditions:

1. Perform a long jump with a full run, including 21 steps.

2. Full run in 21 steps with accentuated repulsion.

3. The long jump run-up from the middle with 11 steps.

4. Long jump with a short run, with 8 steps.

In the first case, the jump was performed with a full run in accordance with the simulation of repulsion when performing a competitive attempt at the maximum result. The second option is related to the demonstration of full run - up with simulated repulsion,but without the accentuated execution of the flight phase of the jump. The third and fourth option simulates the jump from the middle and short run. During the training session, the jumpers performed each exercise after a warm-up with the installation on the maximum set of speed.

In each attempt by means of electronic pairs the speed of running on certain segments, namely, average speed of run-up, speed during performance of the last six steps of run-up, the last three steps of run-up, and also during performance of the penultimate before repulsion and at repulsion at the last step was fixed. At the same time the length was fixed and the frequency of steps on the same run-up segments was calculated.

Research result.

Initially, the speed indicators were recorded when performing a long jump with a full run. The measurement results presented in line 1 of table 1 show an increase in the speed of 9.32±0.22 m/sleep of the last 6 steps to 10.12±0.10 m/s at the last run-up step.In the last three run-up steps, the jumpers demonstrate intermediate speed values of -9.73±0.30 m/s. Similarly, the speed values change when performing a long jump from the short run presented in row 4 of table 1.

In the case of a short run-up, the absolute values of the velocity have smaller values at all measured intervals. The values of the average take-off speed during the full run-up and short run-up are 7.90±0.18 m/s and 7.25±0.42 m/s, respectively.

When performing a full run-up with an accentuated repulsion, the speed in the run-up gradually increases from 9.28±0.16 m/s in the last six steps to 9.54±0.28 m/s in the last 3 steps. At the last step of the run, the speed of movement is slightly reduced to 9.30±0.19 m/s, increasing to the maximum, 9.97±0.09 m/s,when repelling.Probably takagamine speed associated with the preparation of the jumper to repulsion, and is not optimal for achieving a maximum jump lengths.

Table 1 – Indicators of speed in the jump exercises

UPR.	On the last 6 steps, m/s	On the last 3 steps, m/s	On the penultimate. M/s	Last step, m/s	Average speed, m/s
1	9,32±0,22	9,73±0,30	9,83±0,11	10,12±0,10	7,90±0.18
2	9,28±0,16	9,54±0,28	9,30±0,19	9,97±0,09	8,18±0.21
3	8,62±0,34	9,25±0,39	9,23±0,18	9,83±0,11	7,65±0.41
4	7,71±0,50	8,52±0,13	8,57±0,11	9,18±0,28	7,25±0.42

Performing a jump from the average takeoff is accompanied by a minimum speed drop at the penultimate step, comparable to the error in determining its value, and with a run from a short run, the speed gradually increases and reaches the maximum value at the time of repulsion (table 1, line 4).

Comparison of speed dynamics with changes in the length and frequency of steps at the appropriate moments, allows to identify the reasons for the decrease in speed on individual run-up segments. Note that when performing a jump in the competitive mode with a full run, the jumpers retain a certain step length equal to 2.28 m both on the segment corresponding to the six steps and on the segment corresponding to the three steps (table 2, line 1). The average length of the steps decreases when you perform a taken to run run from 2.25±0.02 m when you run the last six steps to 2.23±0.05 m for the last three steps of the run. It can testify to attempts of the athlete thus to increase accuracy of hit on a bar of repulsion.

Table 2 – The ratio of the length and frequency of steps in jumping exercises

Test e	Stride length			Step frequency, W/s		
	Max, m	Here,Ambassador.6 steps, m	The post. 3 steps, m	Max, m	Here,Ambassador.6 steps,	The post. 3 steps, m
1	2,37±0,02	2,28±0,02	2,28±0,04	4,37±0,07	4,09±0,12	4,27±0,16
2	2,33±0,01	2,25±0,02	2,23±0,05	4,55±0,04	4,11±0,14	4,26±0,16
3	2,18±0,05	2,12±0,02	2,15±0,02	4,65±0,06	4,11±0,15	4,36±0,18
4	2,16±0,02	2,01±0,05	2,12±0,04	4,20±0,12	3,76±0,12	3,96±0,15

On the contrary, the middle run jump is accompanied by an increase in the average step length from 2.12±0.02 in the last six steps to 2.15±0.02 m in the last three steps (row 3, tables 2).When performing a short run-up, the length of the Shagan of these segments increases significantly from 2.01±0.05 m to 2,12±0.04 m, respectively. Probably, thus the athlete is trying to gain the necessary speed run. This assumption is confirmed by the analysis of the frequency of steps on the selected segments. The data in table 2 shows that the frequency gradually increases during the run-up of all variants. It is interesting to note the fact of practical equality of the frequency of steps when running in the first three model conditions.The average frequency of the steps of the jumper ranges from 4.09±0.12 W/SV competitive jump model is 4.11±0.14 W/s and 4.11±0.15 W/s, respectively, when running at maximum speed without the allocation of the flight phase of the jump and the jump from the average takeoff. And only when performing a jump with a short run-up, the achieved value of the frequency of movements does not exceed four steps per second (table 2).

Thus, when the model runs, the long jump full run-up speed increase achieved mosregstockcenter a certain length steps when odnovremennoe frequency movements in the last three steps of the run. In other simulated run-up conditions, cases 2-4, the ratio of these characteristics of the jumper movements changes.At etomdlina step may decrease in the selected segments with increasing frequency of movements in the last 3 steps of the run, which is typical for option 2, and when the jump in length from the middle and short run step length increases while increasing the frequency of movements.

Of greatest interest is the analysis of the length of the steps at the penultimate run-up and repulsion, the results of which are presented in table 3. It was found that in the performance of the competitive jump model the length of the last step is 2.39±0.02 m and exceeds the length of the penultimate step equal to 2.35±0.04 m. the Frequency of the steps in the last step reaches the maximum value and is equal to 4.57±0.07 W/s, exceeding this figure when performing the penultimate step– 4.14±0.05 W/s. Performing a short run jump has the same rhythm ratio when the length of the last step increases along with the frequency of the jumper's movements (table 3).

Table 3 – The ratio of the length and frequency of steps in jumping exercises

Exercise	Step length, m		Step frequency, W/s	
	Penultimate	Last	Penultimate	Last
1	2,37±0,15	2,21±0,16	4,14±0,05	4,57±0,07
2	2,35±0,04	2,39±0,02	3,92±0,06	3,99±0,09
3	2,18±0,05	2,13±0,03	4,32±0,07	4,65±0,06
4	2,15±0,02	2,16±0,02	3,92±0,05	4,20±0,12

The execution of the jump model with accentuated repulsion is accompanied by a reduction in the length of the last step, which is 2.21±0.16 m, against 2.37±0.15 m in the penultimate step. Frequency steps rather increases during repulsion to 3.99±0,09 W/C. a Significant reduction in the frequency of movements in the case of execution of the jump with the accented ottalkivayusche associated with concentration of Springbok on the need for a precise hit on the bar repulsion. In the long jump from the middle run, the length of the last step is also reduced, and the frequency of movements even exceeds this figure when performing a jump from a full run (table 3).

When jumping in length with a run in eight steps, these indicators have a slightly smaller value, 4,20±0,12 W/s, but also exceed this figure when performing a jump with a full run.In practice, such data indicate different mechanisms for regulating the length of the run using the length and frequency of steps, which are selected by the athlete depending on the conditions of the exercise.

Kinematic analysis of the run-up in jumping exercises gives reason to argue that the jump in length with a full run-up is different from the run-up with an accentuated repulsion dynamics of the increase in running speed.

The analysis of the dynamics of speed made earlier, shows that the slope of the curve of the speed in the long jump with a full run-up is 25є, when you perform a run with the accented repulsion – 37?, when you jump from the middle of a run – 44є, performing a jump with short run – 45є [1]. This indicates an increase in the gradient of increase in speed with a decrease in the takeoff length and indirectly confirms the differences in the construction of the rhythm of movements in different conditions of the run, which were modeled in this experiment.

Performing a long jump from the middle run is accompanied by a simultaneous increase in the average length and frequency of the steps performed in this part of the run. However, the athlete manages to gain less speed than during the jump with a full run. When sravnivayutsya length cytotechow this exercise most closely on the kinematic structure to perform the long jump full run.

The main differences in the construction of the rhythm of the jump with a short and full run are that the jumper performs movements with much smaller indicators of the length and frequency of steps, and, consequently, with a lower speed when performing repulsion.

The run run with accented repulsion allows to achieve high values of the length and frequency of steps, but their ratio is characterized by considerable variation in the length of the last steps, which reduces the probability of an accurate hit on the bar repulsion.

Conclusion. Biomechanical analysis of long jumpers ' exercises allows to draw a number of conclusions:

– long jump with a full run is characterized by the preservation of the relative constancy of the length of the steps while increasing their frequency at the final part of the run, which can significantly increase the speed of repulsion and achieve accurate hit GA bar repulsion;

– indicators of the length and frequency of steps during the jump in length with a short run is much lower in absolute value of these indicators when jumping in length with a full run, but the ratio of the length of the last steps and the increase in the frequency of movements in repulsion allows you to form the correct rhythm of movements;

– length and frequency of steps during the execution of a long jump in middle of the run allows to increase the speed during ottalkivayas to shape the rhythm of execution of movements, similar in structure vypolneniem jump in glinus full of run, frequency of movements in the last step of running even higher than in the model of jump with a full running start, which allows to recommend this exercise during the preparation for competitions;

– a run-up with an accentuated repulsion allows for a higher average take-off speed, but the ratio of the length and frequency of steps in the final part of the repulsion is very variable, which reduces the probability of an accurate hit on the repulsion bar.

Features of the jump exercises allow us to recommend the formation of the rhythm of the movements of the jumper in length in the length of the jumpers have features of the formation of the rhythm of movements to increase the speed of repulsion.

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UDC 378

ANALYSIS OF THE MEANS DIRECTED ON FORMATION OF A SHOCK ACTION USED IN THE PREPARATION OF YOUNG BOXERS

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Abstract. Most of young boxers training time is aimed at the formation of impact actions. The effectiveness of the training process is determined by a set of tools and methods used in the preparation. To improve the quality of boxers training it is needed to assess the tools in terms of their influence on changes in the impact actions. To assess the most informative exercises affecting the dynamic characteristics of the impact, we used the method of factor analysis.

Key words: dynamic characteristics of shock actions, manifestations of motor qualities, correlation Pleiades of interrelation ships of characteristics of shock actions with indicators of physical readiness.

Relevance. Most of young boxers training time is aimed to form shock actions. The effectiveness of the training process is determined by a set of tools and methods used in the training. To improve the quality of boxers training it is needed to assess the means in terms of their influence on changes in the shock actions. To assess the most informative exercises affecting the dynamic characteristics of the impact, we used the method of factor analysis.

The purpose of the study is to clarify the role of the means used in the training of young boxers from the position of the formation of shock actions by them.

The results of the study and discussion. The following exercises used in the training of young boxers were the subjects of factor analysis: floor dip; standing jump distance; number of jumps over the rope in 1 min; abs exercise in 1 min; strength and energy of a single strike, the time required to gain a total force of strikes of 5 tons, the range of a push of a padded ball of 3, 5, 7, 10 kg; grip ejection of the chest in 1 minute, single strike speed, shock actions energy in 30 seconds.

Correlation interconnections were divided into 4 blocks:

1. Special physical training: throws of a stuffed ball with the right and left hand, 3, 5, 7, 10 kg and throwing the grip of the chest in 1 min;

2. Dynamic characteristics of shock actions: power (in kg) and energy (in J) when performing a single strike; time (s) for obtaining the total power of the strikes to 5 tons and their total energy (in J);

3. Physical condition characteristics: floor dip; standing jump distance; number of jumps over the rope in 1 min; abs exercise in 1 min;

4. The single strike speed and the energy of shock actions in 30s.

The second block was assessed using the computerized shock test complex KIKTEST 100, the fourth block was assessed using the monitoring simulator, patent №2464061, the general and special physical condition (block 1 and block 3) were assessed according to generally accepted methods [5, 6, 7].

Indicators of linear correlation were considered as interconnection of uniform change of one sign with changes, on average, of the value of another sign, which allowed, based on the analysis of the representative set of correlation coefficients characterizing the interconnection of various complexes, signs of the system with its target (system-forming) indicator, to determine the **structure of the system**. The presence of correlation only within the complexes of signs in the absence of correlation between the signs of different complexes was determined as a **correlation pleiad [3].**

Correlation interconnections were considered using the method of correlation pleiades [3] from the standpoint of the role of the system-forming factor in the theory of functional systems [1], which was taken as the dynamic characteristics of the performance of shock actions. The values and nature of correlation interconnections were interpreted taking into account the recommendations [4], according to which the following assessment was given to their values:

- 0.001 - 0.500 - weak;
- 0.501 - 0700 - medium;
- 0.701 - 0.900 - strong;
- 0.901 - 1.000 - very strong.

At the same time, possible changes in their values in the process of dynamic observation were taken into account, which were interpreted depending on the degree of changes in the above ranges as:

- changing the values within the same range - very stable;
- changing the values within two ranges - stable;
- changing the values within three or four ranges - unstable;
- the values varying from reliable to unreliable level of significance - very unstable;
- changing the sign (+ → -);
- unreliable (at the accepted indicator of significance).

The first two groups of interconnections - very stable and stable interconnections were considered as “hard”, unstable and very unstable, in turn, as “flexible”.

In the light of theoretical ideas about the role of “hard” and “flexible” interrelations in the provision of adaptation processes, we can assume that the former ensure the preservation of the system as a whole, while the latter, its current adaptive changes, therefore, the possibility of describing the structure of the system and its dynamics based on the method of ***correlation pleiades.***

In order to interpret the values taken by the indicators of the correlation connection tightness, the so-called ***determination coefficients*** were taken into account, which show how much of the variation of one sign depends on the variation of another sign. In the presence of a linear connection, the coefficient of determination is the square of the correlation coefficient $\mathbf{r^2xy}$.

The determination coefficients make it possible to build the following approximate scale, which allows to judge about the **tightness of the links between the signs**: when r = 0.5 - 0.6, the connection is considered to be medium; r <0.5 indicates a weak connection, and only at r ≥ 0.7 we can talk of a strong connection when about 50% of the sign Y variation depends on the sign X variation ($r^2xy = 0.7 * 0.7 = 0.49$).

It was demonstrated [2] that the determination coefficients are directly related to the indicators of the strength of the influence of individual characteristics on the resulting sign.

The study was performed on 15 young boxers (11–13 y. o.) of the Chaikovsky Municipal State-financed Institution Sport and Health Club Aikido in the period of the three-week training camp from January 4 to January 22, 2018.

Table 1 – Correlational interconnections of boxers testing

Correlational interconnection	СФП (1 блок)									Kicktest-100 (2 block)					General physical training (3 block)				KIT-70 (4 block)	
	Stuffed balls 3 kg 5 kg 7 kg 10 kg								Grip ejection	Single strike		Obtaining 5 t by strikes			Jumping rope 1 min	Flo or dip	Abs exercises	Jump	Speed	Energy
	l	r	l	r	l	r	l	r	20 kg 1 min	kg	J	Q-ty	J	s	Q-ty	Q-ty	Q-ty	cm	m/s	W
Very strong	6	4	2	4	5	3	2	2	2	2	6	1	6	1	0	0	0	0	0	3
strong	9	9	4	7	9	9	7	9	7	8	8	7	8	1	0	0	9	9	8	14
medium	1	3	7	4	2	3	7	5	7	6	1	7	1	1	1	5	5	5	6	0
weak	2	2	5	3	2	3	2	2	2	2	3	3	3	15	17	13	4	4	4	1

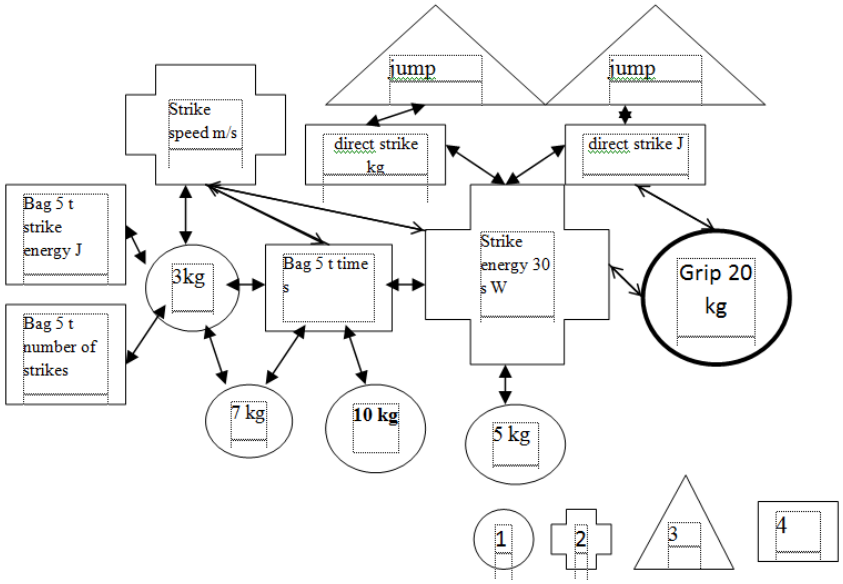

Fig.1 – Block diagram of correlation dependencies: Blocks' names are given above

This scheme shows, that not all exercises from the GPT (3 block) affect the changes in the parameters of other blocks, only a standing jump correlates with the strength and energy of a direct strike (2 block), which in turn depend on the total shock actions energy in 30 seconds, shown in KIT-70 (4 block). A high connection was found in the exercise of throwing the ball 3 kg (1 block), the result of which is influenced by the speed of a single strike shown on the KIT-70 simulator (4 blocks), the minimum time, as well as the number and total energy of strikes in the "obtain 5 tons by strikes" test (2 block) and a 7 kg ball kick. The most informative exercise in 2 block was the "obtain 5 tons by strikes" test, which directly depends on the indicators of of 3, 7 and 10 kg balls kick, as well as with an exercise on KIT-70 performed in 30 seconds.

Conclusion. Thus, to form the shock actions in 11–13 y. o. boxers, it is advisable to use tools with feedback in the form of a Kikest-100 dynamic bag and a KIT-70 monitoring simulator of the SmartPower series. As shown by factor analysis, the above-mentioned devices are better suited to changes in the speed power and strike energy indicators, a means with a 3 kg stuffed ball possesses high confidence, but it has a wide variation taking into account the weight categories of athletes. Therefore, the quality that will be formed - strength, speed or endurance - depends on the selection of effort. This circumstance is technically arranged in KIT-70. The simulator allows you to set any effort with interconnection with the speed and power of the exercise, making the training process according to the tasks.

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UDC 37

THE USE OF FACTOR ANALYSIS FOR ASSESSING COMPETITIVE ACTIVITY IN KICKBOXING

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Abstract. The article presents data on the results of a survey of specialists and coaches engaged in sports training in kickboxing. As a result of the study, the factors determining the success of competitive activity in kickboxing were determined.

Key words: kickboxing, qualified athletes, competitive activity, training sections, factor analysis, factors.

Introduction. The level of results of athletes of the world elite in kickboxing is constantly growing. In the transition of athletes in the sport of higher achievements there is internal and external competition, which opens up new ways and untapped reserves in the optimization of the training process and the strategy of preparation for the main starts of the season. Management of the mechanism of planning training of qualified and highly qualified athletes is impossible without a comprehensive analysis of competitive activity, which should be aimed at a systematic study of significant indicators. The basic mathematical method for complex analysis is factor analysis, which assesses the influence of fundamental factors on the result of competitive activity in sports and evaluation of the impact of these factors. In this case, the essence of the factor analysis used in the field of sports is reduced to a set of methods by which a large number of measured variables is reduced to a smaller number of independent or weakly correlated values, called factors. Variables related to each other are combined into a factor.

The aim of this study was to determine the most important factors affecting the effectiveness of competitive activity in kickboxing.

Methods and organization of research. The survey was attended by specialists and leading coaches of Russia, including Honoured coaches of Russia 19 people, field judges of the all-Russian category 12 people, Honoured masters of sports 11 people, Masters of international class trainings 22 people. At the same time, respondents have experience of coaching from 5 to 25 years or more. The obtained data were processed using correlation and factor analysis using the program STATGRAPHICS Plus, version 5.

Results and discussion. The correlation analysis of the studied indicators allowed us to form a correlation matrix, which we transformed into a factor matrix. The result that was obtained 22 the index of effectiveness of competition activity generated by seven factors having contribution to the total dispersion. Analysis and generalization of the data revealed that the leading factor affecting the success of competitive activity in kickboxing are indicators of technical and tactical readiness of the athlete, taking into account the practical application of technical actions in accordance with the rules of the competition (grade 2.9) (table 1).

At the same time, the basic indicators of technical and tactical skill of qualified and highly qualified kickboxers included in the first factor are the coefficient of effectiveness of protective actions (r=0.958) and the coefficient of endurance (r=0.971).

The second fundamental factor was the level of individual psychological readiness (grade 3.0). The key indicator is the level of noise immunity of athletes (r=0.896), which is characterized by a direct influence on the formation of a powerful working dominant in the cerebral cortex, aimed at the active functioning of the system due to the inclusion of the most important nerve centers. Therefore, at receipt of irritation in an organism of the athlete the system does not collapse, and on the contrary strengthens the work.

The third factor is the level of physical training (grade 4,8-6,4). The key indicators are the results of special endurance (r=0.809), speed and strength endurance (r=0.796), motor coordination ability (r=0.754) and special flexibility (r=0.739). The significance of this factor focuses on the need for targeted improvement of physical abilities in order to improve the special performance of qualified kickboxers.

Competitive activity in kickboxing is characterized by high performance speed-strength character, and for the successful implementation of technical and tactical potential psychophysiological conditions of the athlete are significant. The mobility of nervous processes (r = 0.824) characterizes the speed of response to changing conditions due to the speed of reaction, the speed of switching attention, etc. Complex motor reaction to a light stimulus (r = 0.878) determines the question of the reaction of choice and reaction to a moving object in fights kickboxers.

Table 1 – Factors that determine the effectiveness of competitive activity in kickboxing (according to a questionnaire)

No.	Factors	X (grade)	±σ	V in %
1	Technical and tactical training			
	Coefficient of effectiveness of protective actions	2,9	1,76	64,1
	Coefficient of endurance	3,0	1,84	66,2
2	Psychological preparation			
	Noise immunity	3,1	2,32	68,1
3	Physical training			
	Special speed and strength endurance	4,8	2,21	52,4
	Motor and coordination abilities	6,1	2,51	45,8
	Special flexibility	6,4	2,64	44,9
4	Training experience	7,9	3,22	38,1
5	Physiological characteristics of the organism			
	Mobility of nervous processes	8,1	3,44	36,9
	Complex motor reaction to a light stimulus	8,6	3,24	29,7
	Rhythm and tempo structure of motor action	9,4	3,34	27,1
6	Functional state of the main body systems			
	Properties of attention (volume, distribution)	9,7	3,51	26,1
	The condition of the neuromuscular apparatus	10,9	3,25	20,6
	The condition of the vestibular analyzer	13,6	2,63	20,7
7	Anthropometric indicators			
	Growth and weight indicators	14,9	3,12	20,8
	Absolute muscle mass	15,2	3,28	21,5
	The length of the arms and legs	15,4	2,45	15,8

Indicators of the functional state of the main systems of the athlete's body reveal significant values in terms of the properties of attention (volume and distribution), the state of the neuromuscular apparatus and vestibular analyzer. It should be clarified that on the one hand, the state of the vestibular analyzer occupies one of the last places in the ranking list, but it is the state of vestibular stability of kickboxers that has a direct relationship with the indicators of technical and tactical training.

In the analysis of factors that determine the effectiveness of competitive activity of qualified and highly qualified kickboxers, also the variations of values relative to the average were analyzed. The values of standard deviations and the value of the coefficients of variation indicate that the differences in the views of leading experts on the importance of a factor are of high importance. Variability ranges from 15.8% to 64.1%.

Conclusion. The main factors with a different contribution of each to the total dispersion of a successful competitive activity in kickboxing: the coefficient of effectiveness of protective actions, the coefficient of endurance (the contribution of 59.6 %), noise immunity (the contribution of 18.6%), the level of special endurance (contribution of 5.3%), motor coordination stability (contribution 4.3%), the level of nervous system mobility (contribution of 3.9%), the time of complex motor reaction (a contribution of 3.7%), the state of the vestibular analyzer (contribution 3.4%) and growth and weight indicators (contribution of 1.2%).

The obtained results are used in the process of planning loads of training of qualified and highly qualified kickboxers at training events. To fully realize the accumulated potential of preparedness in competitive activity requires constant monitoring of the level of psychological and physical readiness.

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THE DEVELOPMENT OF FEMALE SKIERS HAVE FLEXIBILITY-GONSHHIC CADETS AND LISTENERS IN HIGHER EDUCATIO IN GROUP SPORTS IMPROVEMENT

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Abstract. The article has been created and implemented in the training process a set of exercises for the development of female skiers have flexibility-gonshhic at the stage of improving sports skills. Identified the correlation relationship flexibility with power and speed.

Key words: female-gonshhic, flexibility, physical preparedness, exercises

Introduction. The testing of racing skiers'physical trainingparticularly female-cadets and listeners ofAcademy of Federal Penitentiary Service of Ryazan has showed the low level of flexibility indexes in the group of sports development. In specialist's opinion, after endurancethis physical quality is one of the most significant. It is necessary for ski step with high amplitude that affects rational technique and effectiveness.

The analysis of scientific and methodological literature and own experiment have showed that nowadays organizational and methodical issues of training process on development of female racing skiers and listeners of higher military institution in the group of sports improvement are covered insufficiently. This facthas determined the topicality of our work.

The purpose of this study is to develop a set of exercises for development of racing skiers - cadets and listeners of higher military institution oh the training process in the group of sports improvement.

Organization of the study.

The researches were conducted on the basis of the sports complex of Academy of Federal Penitentiary Service of Ryazan during one academic year 2017-2018.

The first step of the experiment was identification of the current state of the test subjects in the group of sports improvement (GSI) on cross-country skiing. On that basis testing of physical training was conducted. In that case we relied on the academic program of Academy of Federal Penitentiary Service, standards of "Ready for labor and defense" (TRP). We assessed the level of physical training considering tests: speed - shuttle run;speed-power quality - standing long-jump; flexibility - toe touches standing on a gymnastic bench; strength - lifting the torso from the supine position, bending and straightening the arms in emphasis lying on the floor, a complex power exercise for women №1 [1,6].

At the beginning of the research the test subjects identified indexes which complied with the mark "excellent" and the gold badge TRP: endurance, strength; the mark "good" and the silver badge TRP - speed-power quality; low indexes of flexibility. Also, the correlation coefficient showed the positive interrelation of flexibility with power and speed(r= 0,19; 0,28), the weak interrelation of flexibility with endurance (r= - 0,03).

For conducting emerging experiment two homogeneous groups of sportswomen in the group of sports improvement were created: the GSI - control CG (n=10), the GSI-experimental EG (n=10). The sportswomen had the level of sports classification from 1st sports category to Candidate master of sports (IMR). GSI CG engaged in the program, approved by the educational organization and GSS EG engaged in the program of the experimental methodology.

In specialists' opinions, flexibility creates opportunities for displaying strength, influences joint mobility, improves coordination, elasticity of ligaments and muscles. Strength of repulsion of hands and legs increases, sliding gets longer [2,3,4].

Experimental part of the researches consisted of creating and implementing a complex of exercises for development of flexibility of racing skiers-cadets and listeners of Academy of Federal Penitentiary Service. The complex of exercises included four units consisting of 8-10 exercises. Thefirstunitwasactiveexercises (swings, bents, turns, springy exercises, lungesetc).Thesecondunit was devoted to exercises with an expander (imitation of skiing). Thethirdunit consisted of static exercises where muscles worked without movement, body parts focused on holding weight of an own body in a certain pose. Thefourthunit was flexibility exercises in pairs. The technique of repeated was used.The complex of exercises was included in the final part of every training of preparatory and transitional periods of training process. One unit was designed for three trainings and the amount of exercises gradually increased. Holding in static exercises was begun with 4 seconds, at the end of the year it reached 10-14 seconds. Also, we took into account such factors as a structure of joints, an age, a time of day, sportswomen's individual abilities and so on.

Results and their discussions. The results of pedagogical experiment regarding indexes of the racing skiers' physical training are given in table 1.

On the basis of information from Table 1 we can say that the increase of indexes of physical training in the EG, actually power, speed ones and flexibility, is accurately better that in the CG, $p<0,05$.

So, first of all, positive changes of indexes of flexibility were noted (toe touches standing on a gymnastic bench): it increased by 3,9 cm in the EG; in the CG -1,96 CM, $p <0,05$.

Table 1 – Changing indexes of sportswomen's physical training before and after the pedagogical experiment

Tests		CG, n=10	EG, n=10	Credibilityof differences	
		$\bar{X}\pm\sigma$	$\bar{X}\pm\sigma$	t	p
Lifting the torso from the supine position, a time	before	47,65±2,46	47,79±2,72	0,91	>0,05
	after	48,62±2,76	51,75±2,89	2,18	<0,05
Standing long-jump, cm	before	188,25±0,14	189,22±0,15	0,68	>0,05
	after	191,30±0,15	194,39±0,17	2,16	<0,05
Shuttlerun10x10, sec	before	30,02±1,31	30,06±1,32	0,22	>0,05
	after	29,11±2,05	28,54±2,20	2,06	<0,05
Toe touches standing on a gymnastic bench, cm	before	9,14± 0,70	9,11±0,71	0,01	>0,05
	after	11,10±0,75	13,01±0,82	2,39	<0,05
A complex power exercise №1 for women, score	before	4,25± 0,70	4,11±0,73	0,01	>0,05
	after	4,45±0,85	4,88±0,62	2,39	<0,05
Bending and straightening the arms in emphasis lying on the floor, a time	before	18,14± 0,70	18,11±0,71	0,01	>0,05
	after	19,10±0,74	23,01±0,83	2,41	<0,05
Running 2000 m, min, sec	before	10,14± 0,57	10,11±0,41	0,02	>0,05
	after	09,52±0,39	09,44±0,36	2,13	<0,05

Also, improvementsofindexeswithp<0,05 areidentifiedinthesetests: in "bending and straightening the arms in emphasis lying on the floor" it increased by 4.9 fold in the EG and it increased by 0.96 fold inthe CG; in "standing long-jump"it increased by 5.17 cm in the EG and it increased by 3.05 cm in the CG; in "lifting the torso from the supine position" it increased by 3.96 fold in the EG and it increased by 0.97 fold in the CG; in "shuttle run" it increased by 1.52 sec in the EG and it increased by 0.91 sec in the CG; a little increase in "running 2000 m" is 27 sec in the EG and 22 sec in the CG.

Testing of "a complex power exercise №1 for women",consisting of maximum quantity of bents forwards for 30 sec, toe touches lying on a back; maximum quantity of bending and straightening the arms without pause for 30 sec, has identified improvement of indexes in 0.77 scores in the EG and 0.21 scores in the CG.

1. **Conclusions.** At the end of the experiment the correlation analysis has confirmed the interrelation of flexibility with power and speed. The done experiment has showed improvement of the test subjects' physical training in the EG and has given rise to say about positive using this complex of exercises for the development of flexibility of female racing-skiers and listeners of Academy of Federal Penitentiary Service in the group of sports improvement.

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UDC 37

PROGRAM-METHODICAL STUDY OF TRAINING PROCESS OF CHILDREN OF 12-15 YEARS DOING VSESTILEVOE KARATE AT THE STAGE OF SPORTS SPECIALIZATION

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Abstract. The program of sports preparation by the vsestilevoe karate is developed. The program consists of seven sections, allows athletes of karate to seize knowledge, necessary skills in the chosen sport at the stage of sports specialization.

Key words: training process, vsestilevoe karate, cadets of 12-15 years, overall physical fitness, program of sports preparation.

There is one key stage of sports specialization in structure of long-term stages of training of athletes of martial arts. It fals on the age period from 12 to 15 years.

It should be noted, that low degree of scientific validity of developments on physical and technical and tactical training of children of 12-15 years, doing vsestilevoe karate at the stage of sports specialization, is a consequence of average and approximate planning that leads to transfer the components of loading of training process from the sphere of training of the qualified athletes. It doesn't lead to increase in level of sports skill of young athletes, and harmful affects health of engaged.

The analysis of scientific and methodical literature which is taking up questions of training of karatekas allowed to state existence of the following contradictions in training process on vsestilevoe karate:

1) long-term process of training of athletes-karatekas and insufficiency of scientific justification of the stage of sports specialization;

2) improvement of the technique of training of the qualified athletes and low level of scientific readiness of content of training occupations on development of motor abilities of karatekas of 12-15 years.

The revealed contradictions demonstrate that in training process on vsestilevoe karate with young men of 12-15 years, there is the problem in optimization of the general and special physical training, the motor abilities aimed at the development.

These provisions defined the work purposes - to develop and to experimentally prove the program of sports preparation by the form of sport vsestilevoe karate of the stage of sports specialization for young men of 12-15 years.

For the solution of the purpose and the hypothesis of the research the following tasks were defined:

1. To develop the program of sports preparation by the form of sport of vsestilevoe karate at the stage of sports specialization.

2. To experimentally prove efficiency of the developed program for vsestilevoe karate for young men of 12-15 years.

The ratio of the general and special training of karatekas at the stage of sports specialization during the year cycle is distributed as follows: from September to December – 70/30%; January-March – 50/50%; from April to May – 30/70%.

Taking into account experience of pedagogical activity with groups of the stage of sports specialization in karate, the following load distribution by years of training was offered to those who are engaged in experimental group.

Training process with karatekas was carried out within calendar year, according to the curriculum of sports school calculated for 52 weeks.

Duration of one occupation in group of sports preparation didn't exceed 3 hours, that conforms to the Federal standard of sports preparation by the form of sport vsestilevoe karate (Order of the Ministry of Sport of the Russian Federation of March 14, 2016 No. 237), where loading up to two years of training makes 12 hours a week, over two years - 18 hours, respectively.

During the work with students the main form of the organization of occupations was applied - training occupations (group, individual). Also other forms and kinds of occupations were used: control, recovery, theoretical, competitive activity, training camps.

The structure of the developed program consists of 7 sections in which certain tasks are implemented.

The contents of the section "training occupations" are submitted by the overall physical fitness and special physical training and basic technical movements.

The overall physical fitness is presented by such exercises as: run, hopping exercises, the all-developing exercises with objects and without, acrobatics elements.

Special physical training: goings and biases from kicks with use of tennis balls, performance of actions of the defense by hands, movements in the fighting stance, performance of kicks by hands and legs, working off of kicks with rubber plaits, working off of kicks by the right and left hand in the fighting stance with use of the medicine ball, fight for capture of the trunk, dumping and deduction of the opponent in the prone position. Basic technical actions - "kata" and "kihon".

Theoretical occupations are presented by bases of the theory and the technique of physical culture (safety measures, rules of personal hygiene, etc.); bases of vsestilevy karate (development history, sports classification, names of stances, kicks, blocks, divings, teams, competition rules).

The section comprising testing and control is submitted by tests of the overall physical fitness and special physical training.

Competitive activity is provided with the performance on regional and All-Russian competitions.

Medico-recovery actions include survey of athletes in the sports and medical clinic 2 times a year, direct survey before competitions and training camps; autogenic and ideomotorny trainings.

Instructor practice consists in passing of referee's and instructor seminars, judicial practice at club, city and regional competitions, in training process (technical aspects).

Researches within one training year allowed to establish, that in the indicator of quality of speed of the examined children of control group isn't established reliable distinctions while at young karatekas of experimental group statistically significant improvement of results is noted.

It is revealed that at the beginning of the research at children of experimental group the absolute result characterizing development of coordination abilities was 8.5 sec. with, at repeated inspection at the end of the experiment – 7.6 sec. At children of control group these indicators had no reliable distinctions.

Similar changes were noted also in dynamics of high-speed and power abilities of young men of experimental group, in control group these changes were statistically doubtful.

At assessment of the indicator of endurance the "6 minute run" test was applied. At examinees of both groups statistically significant gains of results in development of endurance (table 1) are noted.

Table 1 – Indicators of development of physical qualities and motor abilities of karatekas of 12-15 years during the forming experiment

Indicators	Prior to the experiment	After the experiment	t/ p	Prior to the experiment	After the experiment	t/ p
	КГ (n=20)	КГ (n=20)		ЭГ (n=20)	ЭГ (n=20)	
	X±m	X±m		X±m	X±m	
Run 60 m, straight off, sec	9,2±0,1	9,0±0,2	0,9/>0,05	9,3±0,1	8,8±0,2	2,24/<0,05
	Δ 0,2			Δ 0,5		
Standing long-jump, cm	185,7±7,2	198,8±8,5	1,2/>0,05	189,2±1,3	210,3±2,0	8,85/<0,001
	Δ 13,1			Δ 21,1		
Shuttle run, 3Ч10, sec	8,3±0,5	8,1±0,47	0,3/>0,05	8,5±0,3	7,6±0,25	2,30/<0,05
	Δ 0,2			Δ 0,9		
Bending forward, cm	12,9±0,3	13,1±0,2	0,6/>0,05	13,1±0,2	15,8±0,4	6,04/<0,05
	Δ 0,2			Δ 0,7		
Endurance run. 6 min., m	1426,3±21,8	1492,3±19,2	2,27/<0,05	1431,2±31,7	1525,8±30,4	2,15/<0,05
	Δ 66,0			Δ 94,6		
Pulling up, quantity	8,6±0,2	8,9±0,4	0,7/>0,05	9,4±0,2	10,1±0,1	3,13/<0,05

Within the year indicators of Special physical training (table 2) raised.

For the year of regular trainings on the developed program at karatekas of experimental group indicators of high-speed and power abilities statistically significantly improved when performing the special test exercises specified in table 2. At the same time, reliable differences between initial and final indicators at athletes of control group aren't revealed.

Statistically significant distinctions were received not only in experimental group, but also intergroup.

Table 2 – Indicators of Special physical training of the young man of 12-15 years doing vsestilevoe karate during the forming experiment

Two shock series of kicks (dvoika), quantity, 20 sec.	19,6±0,4	19,9±0,5	0,5/>0,05	19,2±0,4	20,6±0,3	2,80/<0,05
	Δ 0,3			Δ 1,4		
Push-ups in the lying support, quantity	28,5±0,8	29,1±0,5	0,7/>0,05	29,9±0,8	33,5±0,2	4,37/<0,05
	Δ 0,6			Δ 3,6		
«Mavashi-geri», quantity, 20 sec.	Right 24,8±0,7	Right 25,2±0,6	0,4/>0,05	Right 25,4±0,7	Right 27,4±0,6	2,17/<0,05
	Left 21,5±0,8	Left 22,8±0,7	1,51/>0,05	Left 20,8±0,3	Left 23,5±0,2	7,49/<0,05
	Right Δ 0,4			Right Δ 2,0		
	Left Δ 1,3			Left Δ 2,7		
«Kizami-tski», «Jaku-tski», quantity, 10 sec.	Front 20,2±0,9	Front 21,7±1,2	1,0/>0,05	Front 21,2±0,8	Front 24,4±0,2	3,88/<0,05
	Back 24,8±0,5	Back 25,2±0,4	0,62/>0,05	Back 25,1±0,4	Back 27,2±0,2	4,7/<0,05

It is established that the greatest gain of indicators is observed at assessment of high-speed and power abilities at young karatekas of experimental group (10.6%), in control group gain of this indicator was 6.8%. Gain of results of coordination abilities during researches at young men of experimental group was 11%, control – 2.4%.

At assessment of rates of gain it was considered that gain of indicators up to 8% happens mainly due to natural increase; from 8-10% - it is carried out due to growth of the natural physical activity; 10-15% at the expense of the purposeful system of physical training [2].

Thus, implementation of the developed program for 12 months allowed to raise significantly the studied indicators at young athletes-karatekas of experimental group. It convincingly demonstrates its efficiency both on orientation, and on the complex of means and methods of development of their physical qualities and motor abilities.

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UDC 37

THE DEVELOPMENT OF COORDINATION ABILITIES IN YOUNG GYMNASTS IN TRAINING EXERCISES ON A BALANCE BEAM

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Abstract. The article deals with the problem of the development of specific coordination ability – balance, in young gymnasts at the stage of initial training in training sports programs on the gymnastic beam. The methodology of development of specific coordination and balance disorders through the development and implementation of the training process a special complex for balance beam that includes dynamic and static actions.

Key words: artistic gymnastics, balance beam, sports program, physical action, method of teaching, the specific ability of coordination, balance, exercises, young gymnast.

Gymnastics, as is known, is a sport, which is based on the implementation of exercises in the all-round on gymnastic equipment, where sports programs are characterized by difficult coordination actions performed in relatively constant conditions with the assessment of performance techniques according to the criteria of the program's difficulty, its composition and quality of performance [1; 2].

The all-around competition includes such exercises as: vault, parallel bars of varying heights, balance beam and floor exercise. Exercises on the balance beam considered the most complex kind, which have their specific characteristics [1].

Training of gymnastic exercises of girls on a gymnastic log as it is established, is special means in formation of bases of equipment of school of movements, abilities to keep the correct posture, to feel a log foot, to keep balance, to own coordination of movement which can be used in all other types of gymnastic all-round, especially at a stage of initial preparation.

Therefore, training exercises on the gymnastic log and their improvement are always relevant and require special skill and attention of the coach. The method of teaching any motor actions, including, and on a gymnastic log is based on the General laws, requirements and rules of training.

It is established that the mechanism of determination of readiness for optimum management and regulation of motor action at young gymnasts in the course of development of coordination abilities will pass most effectively if:

- they are constantly acquiring new motor skills;
- provides a consistent complication of the main movements;
- there is the inclusion of novelty elements;
- various methods, means and techniques are used to facilitate accurate measurement and regulation of spatial, temporal and dynamic parameters of movements [1; 3; 4].

Therefore, it was assumed that the development of a set of special exercises to promote the development of coordination abilities in balance on the gymnastic log and the method of its implementation in the training process of girls gymnasts 7-8 years will contribute to the improvement of training and mastering the exercises of sports programs at the stage of initial training.

The aim of the study was to find ways to improve the methods of teaching sports exercises on the gymnastic log of young gymnasts through the development of specific coordination - balance.

Based on the purpose of the study, the following tasks are formulated:

1. To develop a set of exercises on a gymnastic log for the development of coordination ability – balance and methods of its use.

2. To determine the effectiveness of the developed complex and methods.

Exercises on the gymnastic log, as is customary, include: dance steps, various types of balances, turns and jumps, as well as acrobatic exercises, which in their content and nature of exercise sports programs are close to free exercises, but differ from them in that all the elements are performed on a high and narrow support.

For loss of balance accepted classification of errors from small to coarse (0.1 to 0.5 points) and the fall (the jumping) with the projectile, the deductions from the evaluation of the performance shall be carried out in a 1.0 score. It's a palpable loss. In addition, the loss of balance can lead to various kinds of injuries, i.e. loss of health. Therefore, the development of specific coordination - balance in exercises on a gymnastic log, from the point of view of health saving technologies, requires special attention.

On this basis, the methodology of teaching motor actions in the balance beam provides for start doing exercises on the floor on the scribed line, then on a gym bench, then, after formation of skill of motive action, and study exercises and elements performed on low beam, on the middle, and then high beam [2].

Based on the fact that the development of balance is the basis of straightness of body movements and the process of improvement occurs through spatial differentiation of movements, so at the stage of initial training with girls 7-8 years in the complex were included exercises that develop the ability to assess the position of body links, direction of movement, height and range of jump. In this regard, the complex included the following actions: turns, soft steps with holding the legs back and forth, alternately bringing the legs back and forth with their holding, standing on one and the other leg, dance steps, jumping and jumping from two legs from the end of the log, bent, ie actions dynamic and static nature.

Based on the practice and theory of teaching motor actions, we developed a set of mastered, as standard, in

three stages: - created the presentation of the studied set of exercises and the first attempts to perform it on the floor; - the training stage was carried out with the correction of errors and summing up to a complete independent implementation, the formation of motor skills and - at the stage of consolidation was provided pedagogical control of mastering the trained set of exercises. At the third stage of fixing the complex has already been used on a high log as a special warm-up.

At all stages of training, we used conventional methods of training in gymnastics - a holistic and dismembered methods.

A comprehensive exercise has been applied to each stage of training, it is possible to learn a sequence of exercises of the complex. The same method mastered individual details, elements or phases, i.e. in the General structure of movement, by focusing the attention of gymnasts on the necessary parts of the technique [4].

When mastering the exercises with a more complex structure, we used a dismembered method, which involves the dismemberment of the integral motor action into separate phases or elements with their alternation learning and subsequent connection into a single whole. When applying the dismembered method, we observed the following rules:

1. Training began with a holistic implementation of the complex on the floor, and if necessary, stand out from it elements that require more careful study.

2. Exercises were divided in such a way that the selected elements were relatively independent or less related to each other.

3. The selected elements were studied in a short time and at the first opportunity of assimilation were combined with others.

4. The selected elements were studied in different versions (on a full foot or on high half-toes, with open eyes and closed eyes). In this way, the sequence of exercises of the complex and its final version were constructed.

The method of using the complex in the training process was designed for us for 3 months. The set of exercises was performed only on those days when the gymnastic log was in the training schedule.

The pedagogical experiment involved young gymnasts, who were divided into 2 groups: control and experimental. In the control group, the complex was performed at all stages with open eyes, and in the experimental, as assimilation – with closed eyes. First, the motor actions were performed and the eyes were closed, and then the actions were performed, closing the eyes in advance, and opened to check the correctness of the adopted position.

The amount of execution of the complex was once for training. The time spent on its implementation at the 1st stage of the experiment (1st week) was up to 30 minutes, as the complex was divided into separate exercises, which was the main requirement during the learning period. In each subsequent stage of development and performance of the complex with subsequent changes in the height of the projectile by the end of the experiment, both groups performed the complex on a high gymnastic log for 2 minutes.

With each subsequent stage, in the control and experimental groups, the number of equilibrium losses and gross errors in the form of falls (jumps) from the projectile gradually decreased (from 3-5 to 1-2).

The main sports program, which was mastered simultaneously with the complex, was gradually carried out with a minimum number of gross errors, minor balance losses occurred, for example, only after a series of slow acrobatic coups.

To prove the effectiveness of the developed technique, a control training with a team of expert judges was specially organized. It was built according to the type of competition, with a limited warm-up time and a special form of evaluation of exercises. Participants of the experiment were subjected to the system of evaluation of sports programs in four types of women's all-around, including the gymnastic log. The judging took place according to the rules of the international FIG, the decrease of the judges (expert teams) of E1 and E2 on the balance beam was done only for the loss of balance.

The results of the differences in the average scores for the performance of sports programs on the gymnastic log between the control and experimental groups were 36.8 %, i.e. the scores for the performance in the experimental group were significantly higher.

It should be noted that when implementing a specially developed complex and methods of its development with closed eyes, the following recommendations should be followed:

1) to keep the accepted sequence and the principle of gradualism when learning the complex;

2) ensure safety at all stages of learning, especially during the execution of complex exercises with your eyes closed, sub-genres gymnastic mats avoid the injuries;

3) the coach to be near the projectile during execution of a complex and comment on the action without raising the tone of your voice that will help gymnasts to navigate in space;

4) originally to teach girls the skill of safe falling and jumping off a gymnastics standard logs, i.e., proper landing.

Thus, the inclusion in the training process of the technique of performing a special complex with closed eyes for the development of a specific coordination ability – balance, when training exercises on a gymnastic log proved its positive effectiveness and is recommended for use.

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UDC 37

DEVELOPMENT OF THE SPEED-POWER TRAINING OF YOUNG FOOTBALL PLAYERS 10–12 YEARS

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Abstract. In the course of the study, recommendations were prepared aimed at improving the training process based on the development of the speed-strength level of preparedness using the circular training of young football players throughout the entire training process and the improvement of technical and tactical techniques both individually and as part of a team.

Key words: speed-strength training of young football players, physical training, technical training, circular training.

At the present stage, the training of young football players requires further improvement, the search for new approaches and methodological solutions for the development of speed-strength training using the circular training method, which will allow developing athletic actions of athletes for the ball possession technique and actions during the game process.

“To carry out a circular training with the use of specially selected exercises performed in a certain combination, a high intensity of the load is achieved, which develops the muscle groups involved in the motor actions of the young football player, the ball possession technique and teamwork with other players” [2].

For the development of speed-strength readiness of young football players, a pedagogical experiment was conducted from April to October 2018 at the football field No. 73 of the city of Voronezh, where, at the end of each lesson, athletes performed circular training exercises.

“Before conducting a scientific experiment in the control and experimental group, testing was conducted on anatomical indicators, physical development and technical readiness of young football players, who showed no significant deviations on the above indicators and development in each group of speed-strength training” [1].

During the training sessions, during the six-month training cycle, 6 months (May-October) in the control group, the training sessions were conducted according to the generally accepted methodology. In the experimental group, training sessions were conducted with a rubber bandage by the method of circular training for the development of speed-strength readiness:

- the first two months (May-June), the young football players performed exercises with a rubber bandage for strength training;

- the third and fourth months (July-August), the young footballers performed a circular training session on speed training;

- the final two months (September-October), the young football players performed a circular training session for speed-strength readiness.

During the weekly cycle, the circuit training was held on Monday, Wednesday and Friday at the end of each session.

"The use of circuit training at the end of classes, during the final testing of young football players showed a significant increase in physical development of the experimental group and the high results of the technique of possession of the ball" [3].

In the control and experimental groups, the final testing of anatomical parameters remained homogeneous, significantly, and in the experimental improvement of the result for each indicator exceeded 5%, which is a reliable indicator.

Indicators of the technique of possession of the ball by young football players of the control group did not change significantly, and the performance of control exercises with the ball in the experimental group improved in percentage terms by more than 5%, which shows the positive effect of circuit training.

According to the results of the research, it should be noted that the use of circuit training with the development of speed-strength training in the training process of young football players has a positive effect on the technique of ball possession and actions in a team game.

The team of young football players of the experimental group at the end of the training process in the fall participated in football competitions among the teams of the city of Voronezh and won first place as a result of the developed, effective and well-chosen driving exercises of circuit training.

Thus, the developed methodology for the development of speed - power readiness of young football players by the method of circuit training is relevant and modern.

Table 1 – Anatomical indicators of young football players in the control group

	Growth cm.	Weight kg.	Length arms cm.	Length legs cm.	Shoulderwidth cm.	Surround chest cm.
M	150	38	57	86	33	70
σ	2,3	1,9	0,9	1,6	1,6	2,9
m	0,7	0,6	0,3	0,5	0,5	0,9

Table 2 – Anatomical indicators of young football players of the experimental group

	Growth cm.	Weight kg	Length arms cm.	Length legs cm.	Shoulderwidth cm.	Surround chest cm.
M	150	38	55	86	33	70
σ	2,3	0,4	2,3	1,6	0,9	2,9
m	0,7	0,3	0,7	0,5	0,3	0,9

Table 3 – Indicators of the physical development of young football players in the control group

	Running 30 m. seconds	Longjump cm.	Bounce up cm.	Shuttle running 3 * 10 sec.	Run 100 m sec.	Bending the extension of the arms in the support lying times / 30 sec.	Flexion extension of the body lying on the back fold / 30 sec.
M	5,4	193	224	8,4	16	36	27
σ	0,3	13,6	6,8	1,6	0,2	4,9	3,2
m	0,1	4,3	2,1	0,1	0,1	1,5	1

Table 4 – Indicators of physical development of young football players of the experimental group

	Running 30 m. seconds	Longjump cm.	Bounce up cm.	Shuttle running 3 * 10 sec.	Run 100 m sec.	Bending the extension of the arms in the support lying times / 30 sec.	Flexion extension of the body lying on the back fold / 30 sec.
M	5,1 (5,6%)	202 (5,7%)	232 (5,6%)	8 (6,8%)	15,1 (5,6%)	40 (11,1)	31 (14,8)
σ	0,3	9,7	3,9	0,2	0,2	3,2	3,6
m	0,1	3,0	1,2	0,1	0,1	1	1,1

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OPTIONS OF THE ORGANIZATION OF THE TRAINING PROCESS OF BOXERS

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Abstract. In this article, the author proposes to use the combined approach for the development of speed-power abilities of boxers, which affects the physical and technical development of an athlete. Such an organization of classes, according to the author, allows to improve the performance of speed-power qualities of boxers.

Key words: speed-strength training, combined approach, training process, general and special physical training.

Introduction: The competitive activity of boxers takes place in the submaximal power mode, since the duration of one round is 3 minutes. It is anaerobic lactate sources that are key to the energy supply of boxers, which largely determine the special endurance of athletes, therefore the search for options for constructing the training process of boxers at various stages of preparation is relevant [1]. Boxing exercises increase the level of functional capabilities of the body by raising the general working capacity, stimulate the development of endurance, strength and speed-strength qualities, coordination abilities, etc. [2; 4].

For the harmonious development of the special physical qualities of boxers and to increase the level of competitive activity, we propose to apply a combined approach. The combined approach is to combine different types of motor activity in one training session.

When using a combination of tools in the training process of boxers, we focused on:

1. The requirement of the Federal standard of sports training for the sport "Boxing".

2. Psycho-emotional state and functionality of athletes.

3. Transfer of physical qualities, motor skills and functionality in the process of training.

4. The focus of the training process on solving health problems.

5. Ensuring the continuity of the content of forms, methods of sports training and their optimal combination.

6. Building the content of classes with the requirements of the federal standard of sports training for the sport "Boxing".

A particularly important point in this approach is the importance of the transfer of fitness and motor skills. The transfer of fitness in relation to motor actions is a special case of the transfer of adaptation effect, which is understood to mean a nonspecific increase in the functional capabilities of an organism as a result of adaptation to specific conditions [6]. The use in one lesson of various exercises from various sports expands the movement abilities of the students, creates favorable prerequisites for the successful mastery of movement skills.

In the training process of boxers, use with caution those exercises that may adversely affect the formation of professional motor skills [2, 4]. Negative effect can give and increased amounts of physical activity. The load and rest should be alternated in such a way that each subsequent lesson would “follow in the footsteps” of the previous one, deepening and consolidating the positive changes.

Research organization: The study was conducted with students of 1-2 courses of the specialization "Boxing" in FSBEI of HE "Volga State Academy of Physical Culture, Sports and Tourism" Kazan. The respondents are 18-20 years old. The classes were held in accordance with the “Federal Standard of Sports Training in the Boxing Sport” [3]. The experimental and control groups for the study included 17 young men (skill level from 2 adult level to the CCM). The study was conducted from September 2018. to January 2018 In the experimental group, training sessions were conducted with the primary use of the combined approach.

The results of the study: The inclusion of a combined approach to the training process of boxers contributes to the development of both physical and functional capabilities of boxers.

Table 1 shows the data of students of young men on physical and functional preparedness before and after the pedagogical experiment.

As can be seen from the table, before the experiment, the indicators of physical fitness of young men corresponded mainly to the average and low level of development.

So, in the run for 100 meters, the result of the young men of the control group is 14.22 ± 0.9 s, which corresponds to, on the basis of a scoring system, 2 points.

The result of EG1 is 14.19 ± 0.7 seconds, this indicator corresponds to 3 points. Since speed is a difficult quality, the increase in performance after the experiment in this form was small. So in the control group it was only 0.13 seconds, in EG1 the increase was 0.39 seconds ($P < 0.05$).

The results in running for 100 meters in the test groups also depended on the activity of the respiratory system and the body's ability to work without O2.

During a breath hold on an inhale before the experiment, the following results were obtained: CG - 48.34 ± 2.2 seconds, EG - 49.42 ± 2.63 seconds. After the experiment, the results in the CG increased by 5.85 seconds, in the EG by 7 , 38 seconds ($P < 0.05$).

The magnitude of the Genchi test before the experiment in the studied groups is less than 30 seconds, which is a relatively weak indicator for boys 18–20 years old. After the experiment, this value increased in CG by 4.22 seconds and amounted to 26.9 ± 3.16 before the start of the study, and 31.12 ± 2.1 seconds after the experiment. In the EG, the increase was 5.1 s. ($P < 0.05$): the result is 27.5 ± 3.2 seconds - before the experiment and 32.66 ± 1.8 seconds, respectively, after.

Table 1 – Indicators of physical and functional fitness of young men

Indicators		CG x±m	EG x±m
100 metersrunning (s);	1	14,22±0,9	14,19±0,7
	2	14,09±0,7	13,8±0,4 *
forwardbends (cm)	1	6,3±3,8	6,41±2,87
	2	8,85±1,32	9,3±1,18 *
pullingup (times)	1	6,34±2,6	6,48±2,8
	2	9,6±2,1	11,13±1,71 *
long jump from place (cm)	1	219,6 ± 14,7	219,3 ± 13,8
	2	226,5 ± 9,3	233,8±9,1 **
Cooper'stest (m)	1	2428 ± 19,7	2381±18,65
	2	2644 ± 16,4	2760±15,7 *
ILC (L)	1	3,5±0,08	3,4±0,07
	2	3,7±0,12	3,9±0,05 *
Stange'stest (breath) (s)	1	48,34±2,2	49,42±2,63
	2	54,19±1,8	56,8±1,7 *
Genchitest (exhale) (s)	1	26,9±3,16	27,5±3,2 *
	2	31,12±2,1 *	32,66±1,8
Romberg'stest(s)	1	22,23±3,47	23,18±3,28
	2	27,45±3,1	31,67±2,8 *

Notes * - P<0,05; ** - P<0,01;
1 – before the experiment, 2 – after the experiment.

To assess the flexibility we used this type of testing, as the slope forward. The best result after the experiment was shown by young men from the EG of 9.3 ± 1.18 cm (P <0.05), although prior to the start of the experiment they showed a result of 6.41 ± 2.87 cm.

Before the experiment, the young men of the CG pulled up an average of 6.34 times, the experimental group - 6.48 times. After the experiment, the young men of the control group showed the following result: 9.6 times (the increase was 3.26 times). Young men from the EG were pulled up 11.13 times (P<0.05).

Before the experiment, in the speed-strength indicators of the young man of the CG, the following result was shown: 219.6 ± 14.7 cm. The result shown corresponds to an "unsatisfactory" rating. After the experiment, they showed a result of 226.5 ± 9.3 cm, which also corresponds to an unsatisfactory assessment. The guys from the EG before the experiment passed this test for "unsatisfactory". After the experiment, the increase in this form amounted to an average of 14.1 cm (219.3 ± 13.8 before and 233.4 ± 9.1 after the experiment at P <0.01). The shown final result corresponds to 3 points.

With the help of the Cooper test, we determined the endurance. In the control group, the endurance index corresponded to the "satisfactory" rating before the experiment and the "good" rating - after (2428 ± 19.7 m. And 2644 ± 16.4 m). Run distance increased by an average of 216 meters. Low growth in this form is associated with a low lung capacity (VC), where the increase was 0.2 liters over the entire period of the experiment. In the experimental group, the results shown also correspond to a rating of "satisfactory" before the experiment, and an assessment of "good" after. The increase in Cooper's test in the EG was 397 meters (P <0.05). The indicator of vital capacity of the lungs (VC) in the EG increased by 0.5 liters (from 3.4 liters to 3.9 liters, P <0.05).

As can be seen from the table, the guys from the EG were more coordinated, their results in the Romberg sample after the experiment were 31.67 ± 2.8 s. The increase in the EG was 8.49 seconds (P <0.05). The results of the CG guys, both before the experiment 22.23 ± 3.47 seconds, and after - 27.45 ± 3.1 seconds, correspond to the low level of coordination ability.

The interaction of training effects that occur after performing loads of different physiological orientation, can lead to increased adaptation changes in the body, slow them down, or be neutral [2, 5]. Moreover, the direction and severity of the training effect of a certain set of physical influences will depend not only on their combination in one lesson, but also on the sequence of the sessions themselves during the training micro cycle.

Conclusions and practical recommendations. The trainer should not require long-term endurance exercises or frequent speed-strength exercises. It is also inappropriate to load those engaged in a variety of exercises of a general and special nature, since the prevalence of these exercises can also reduce the performance of students and their interest in completing assignments. It is necessary to choose such exercises that would meet the objectives of integrated development. As a rule, in the first part of the lesson, exercises for coordination and speed are used, and at the end - exercises with projectiles and special gymnastics for the development of flexibility and strength, as well as for the integrated development of basic physical qualities.

During the training session, the coach must take into account the basic principles of the selection and use of various means, which are as follows:

- novelty assignments. Continue the search for new, non-standard and interesting exercises;
- Non-standard ways of doing exercises. Exercise make unusual:
  a) a variety of starting positions (for example, a long jump - standing with your back to the direction of the jump);
  b) mirror exercise;
  c) unusual performance conditions.
- coordination complexity of tasks;
- a variety of motor actions and their combinations;
- frequent changes of tasks, partners, shells; changes in the pace of assignments, in dynamic and kinematic characteristics of movements.
- variation of physical exercises (performing them in the direction from simple to complex - feeding, imitating, simplified, standard and complicated exercises);
- the principle of conformity of the pace and duration of movements to the goals of preparation and the tasks of safety of the training process while observing a certain level of muscular tension and relaxation.

To achieve high results of athletes in boxing, it is necessary to pay due attention to the integrated development of all physical qualities and abilities, with an emphasis in the training process on the development of speed-strength abilities as a leading component of physical fitness of boxers.

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UDC 37

THE ANALYSIS OF THE PERFORMANCE OF SPOTSMENOV-STUDENTOV IN SUMMER POLIATHLON (QUADRATHLON)

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Abstract. In this article there is a characteristic of types of poliathlon and results of athletes students of the Chuvash Republic in separate types of summer poliathlon are considered. The analysis of sports activity of young men at the age of 18-23 years from 2016 for 2018 acting in the championships of Russia in summer poliathlon (quadrathlon) is submitted.

Key words: summer poliathlon, analysis of competitive activity, double-event, triathlon, quadrathlon, pentathlon, types of sports meets, result.

Polyathlon (poly-many, athlon-aspect) is a unique sport that can be characterized as complex, i.e. consisting of several independent aspects. This sport can be practiced regardless of the season, i.e. equally free in winter and summer, in autumn and spring. It has no age restrictions. The one who scores the highest amount of points in the table approved by the Ministry of Sports of Russia wins. For the majority of the country's population, polyathlon is a completely new sport, because it has appeared recently, in the world of sports, it has been existing for just over 20 years. Some believe that polyathlon is the continuer of the GTO complex, which originated in the 30s of the last century. People who are actively engaged in polyathlon for a long time can master and cope with the technique of shooting, swimming, sprint and long-distance running.

Taking into account the season of the year, polyathlon is divided into winter and summer, but summer one can be practiced in winter in closed stadiums. Biathlon and triathlon are integral parts of the winter polyathlon, and summer one may include: biathlon, triathlon, quadrathlon and pentathlon. Winter triathlon consists of: ski race, shooting and power gymnastics. Power gymnastics in the winter polyathlon is represented in men of all age groups – by chinups, and in women – by flexion-extension of the arms for 4 minutes.

One of the most spectacular and difficult sports is the summer polyathlon. It can be compared with modern pentathlon by the difficulty of training athletes.

Types that are included in the summer polyathlon:

1) swimming (at a distance of 25, 50 and 100 m freestyle);

2) sprint (30, 60 or 100 m.);

3) endurance running (500, 1000, 1500, 2000 or 3000 m.);

4) grenade throwing (the mass of a grenade is 250-700 g.).

5) air rifle shooting (10 m distance, 5 or 10 shots each).

6) ball throwing (the mass of a ball is 155 - 160 g., diameter 58 - 62 mm.);

Today, a healthy lifestyle is becoming popular among today's youth. Young people are very interested in physical culture and sports and are ready to develop their physical capabilities by actively engaging in polyathlon.

It must be emphasized that the polyathlon is popular not only in the Russian Federation, but throughout the world. Nowadays, polyathlon is becoming an international sport.

The purpose of the study is to analyze the performance of studentsathletesof various qualifications, who represent the Chuvash Republic in the summer polyathlon (quadrathlon) at the Russian championships for 2016-2018.

A detailed analysis of the competition reports of athletes from 2016 to 2018 was carried out to accomplish this goal. The research results showed that the average scores of points, which were scored by the 20 best studentsathletes of the Chuvash Republic, were 328.3 points.

If we compare the sum of points for certain types of summer quadrathlon, it becomes obvious that the results of athletes in endurance running are inferior to other types of polyathlon. When analyzing the performances of studentsathletes, the average result in endurance running was 6 minutes, which, according to the result table, gives 80 points to the athlete's total piggy bank. The average group result in the sprint was 7.52 seconds, which according to the result table corresponds to 72 points, in swimming (at a distance of 100 meters), the result was equal to 1.04 minutes, which gives a total of 82 points, in shooting from air rifle, the average group result was 85.7, which corresponds to the result table - 85 points.

In 2016, the following research results were obtained: in swimming, students athletes gained an average of 88.4, in shooting – 88, in the sprint – 77.5 and the least amount in endurance running. This year, the average result for the group was 329 points.

In 2017, the total amount of points scored by athletes in certain types of summer polyathlon was 323 points. A detailed study of the protocols shows that polyathlonists reduced the average group result in swimming by 2 points compared to 2016, while the results in the sprint, on the contrary, increased by 0.08 seconds.

When comparing the results of performances of athletes in 2017 and 2018, it is clear that in 2018 the total amount of points scored by athletes increased by 10 points. In the sprint, the result increased by 3.6 points, in swimming - 0.1, in shooting by 4.5 and in endurance running by 1.8 points.

As a result of the research, it was found that the students athletes scored relatively the same amount of points for 2016-2018 in shooting, sprint and swimming. The instability of the average group results is seen in the endurance running, so in 2017 the result is much lower compared to 2016 and 2018.

Table 1 – Dynamics of average group indicators in the summer polyathlon

Types of polyathlon	Average scores by points and years		
	2016	2017	2018
Sprint	77.5	76.1	79.6
Shooting	88.35	87.25	92
Swimming	88.4	85.6	85.7
Endurance running	74.75	74.05	75.70
Sum of points	329	323	333

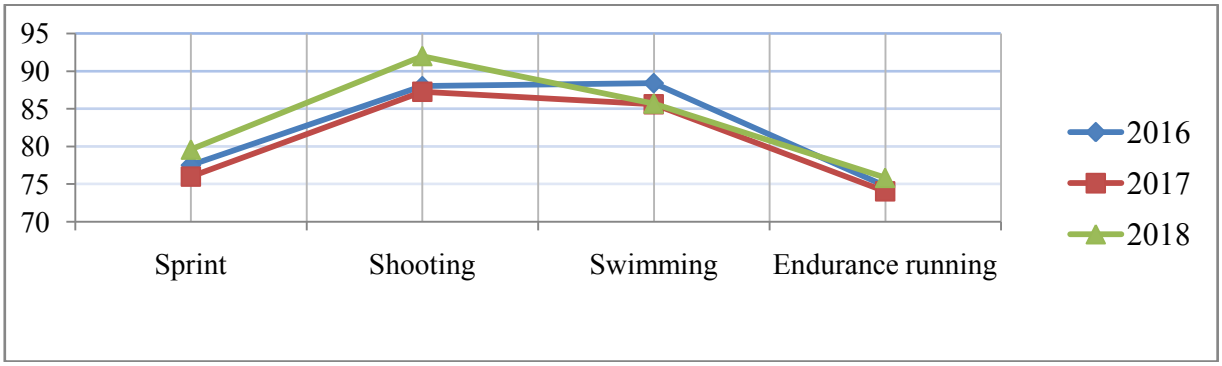

Fig.1 – Graph of averages by the types of sport

It is necessary to take into account that the amount of points scored by polyathlonists in certain types of summer quadrathlon depends on various indicators, these include: weather conditions, air and water temperature in the pool, lighting in the shooting range, technical support of the competition, proper and balanced nutrition, equipment of athletes and qualification of refereeing, etc. [5].

The coach of athletes must competently approach the compilation of a training plan and competition. And it is necessary to build a training session depending on the state of health, the desire of polyathlonists to train. We should not forget that an athlete is, first of all, a student who combines sport and study [3, 4].

The results of the analysis, which were obtained by processing the three protocols of the competition performances in the age group of 18-23 years, showed for which types of summer polyathlon, students athletes gain the highest and lowest points. The data obtained are important in the preparation of an individual training plan. When composing it, the coach of athletes will take into account the capabilities of the athlete and correctly distribute the load in each type of summer polyathlon [7].

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UDC 37

QUANTITATIVE EVALUATION OF ORGANIZED ATTACKS ATTACKS TO BASKETBALL PLAYERS OF STUDENT LEAGUES

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Abstract. The article presents the results of a comparative analysis of the competitive activities of basketball teams playing in the championship of the Student Basketball Association (ASB). Presents the results of quantitative indicators of organized attacks attacks by male teams of the senior division "Center" ASB.

Key words: team, basketball players, number of attacks, technical and tactical actions.

In theory and methodology of sports training of various sports for many years, there are opinions that the effectiveness of building a training process depends on the knowledge of the effectiveness of competitive activity of athletes.

To identify the features of technical and tactical preparedness of basketball players, it is necessary to constantly conduct a comparative analysis of the competitive activities of teams of various qualifications.

The subject of analysis of competitive activity in basketball consists of quantitative indicators of technical and tactical actions and an assessment of their effectiveness. Currently, the form and content of the statistical report has been approved by the Russian Basketball Federation (RFB), and the information about the game activities of players and teams is freely available on the official website.

However, few studies related to the study of the quantitative characteristics of technical and tactical methods of basketball players in competitive activities that are not included in the list of the official statistical report of the RBF, and this could not but initiate this study [1; 2; 3].

The purpose of our study is to analyze organized attacks of the attacks of men's basketball teams.

In the course of this work, we analyzed the data shown by the men's teams of the top division «Center» of the Student Basketball Association (ASB) championship in the 2018-19 season. Basketball players of 4 teams participating in the Center semi-final played the role of an experimental group of athletes: Baltic Federal University (BVU) Kaliningrad, St. Petersburg State University of Industrial Technology and Design (SPbSTDD), Moscow State Academy of Physical Culture (MGAFK-2) , Voronezh State Institute of Physical Culture (VGIFK).

The data of each separate team was entered into the protocol of registration of attacking actions of basketball players developed by us. The following indicators were analyzed: total number of attacks; the number of attacks carried out after possession of the ball (1 attack); the number of attacks organized after rebounds in an attack (Attack + p / b + attack); the number of technical losses in the transmission and on the ball; the percentage of attacking actions of teams (Table 1, 2).

Table 1 – Indicators of attacking actions in the attack of male teams top division «Center» Championship ASB

Indicators	BFU	BFU SPb GUPTD	MGAFK -2	VGIFK
Number of attacks	292	265	247	284
1 attack	152	162	140	189
Attack + p / b + attack	40	28	26	25
Number of losses	43	34	45	47
The number of losses of the ball in the programs	27	23	29	23
The number of losses in driving the ball	8	7	13	20

The selection of indicators of competitive activity of teams was associated with a quantitative assessment of technical and tactical readiness of players who are able to realize the chance of attacking the ring of rivals from the first attempt or from the second, after the rebounds on a foreign shield. The calculation of the selected indicators is not included in the list of the official statistical report of the RBF. We also analyzed the technical losses in carrying out attacks in a swift or positional way. In addition to the characteristic errors in the transmission and on the ball, we recorded the loss as a failure of the attack associated with the fouls of the players in the attack.

From table 1 it can be seen that among teams the difference in quantitative indicators is insignificant and amounts to ± 10-12%. The highest number of attacks from the first attempt is shown by the VGIFK team, but at the same time the lowest participation rate in the selection of the ball after the attack. The winner of the tournament, the BFU team, was more active in the selection than other rivals.

A comparison of the average indicators of the competitive activities of the participating teams showed that the ratios of the attacking actions in the attack do not have significant differences (table 2).

Table 2 – Average competitive activity of men's teams top division «Center» Championship ASB

Coman- dy	Indicators	Number of attacks	1 attacks	Attack + p/b + attack	Number of losses	The number of losses of the ball in the programs	The number of losses of the ball administered
BFU	X± σ	97,3±9,3	50,7±9,0	13,3±1,9	14,3±6,0	9±4,7	5,3±1,3
	%		52,1	13,7	14,7	62,8	37,2
SPb GUPTD	X± σ	88,33±1,45	54±3,51	9,33±2,03	11,33±1,2	7,7±2,3	3,7±1,3
	%		61,1	10,6	12,8	67,6	32,4
MGAFK-2	X± σ	82,3±4,5	46,7±3,5	8,7±4,7	14,7±3,8	9,7±2,3	5±2
	%		56,7	10,5	17,8	65,9	34,1
VGIFK	X± σ	94,7±6,9	63±5	8,3±3	15,3±3,8	7,7±1,8	7,7±2
	%		66,5	8,8	16,2	50,0	50
	X± σ	90,7±3,2	53,6±3,0	9,9±1,5	13,9±1,8	8,5±1,3	5,4±0,8
	%		59,1	10,9	15,3	61,1	38,9

According to the results of our research, it can be said that student teams performing in the semifinals of the top division «Center» of the ASB championship showed the same results in technical and tactical actions.

It should be noted that teams can be part of the top division in two ways: on the sporting principle, after selection as the strongest in their region; and upon request with the payment of the amount of the organizational membership fee for participation in the divisional stage of the Championship. Many student teams due to the financial difficulties of their universities do not participate in subsequent rounds, so strong teams are «out of the game», and experts at the semi-finals and finals of the ASB observe low-performance statistics. And, nevertheless, thanks to the statistical information, the coaching staff has the opportunity to identify weaknesses in the preparedness of players and to make adjustments to the process of their further preparation.

This study does not exhaust the content of the problem under consideration and has a promising direction for further research work related to the development of model characteristics of student basketball teams from different divisions and leagues of the championship of the Student Basketball Association.

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UDC 796/799

THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE ORGANIZATION OF PHYSICAL EDUCATION LESSONS WITH ELEMENTS OF FREESTYLE WRESTLING

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Abstract. The article presents the option of conducting a lesson in physical culture with elements of freestyle wrestling in a comprehensive school with using information and communication technologies.

Key words: physical education lesson, freestyle wrestling, information and communication technologies, Plickers, federal state educational standard.

The relevance of the work. The huge variety of information and communication technologies and their distribution in everyday life makes it expedient to use them in the educational process. ICT can solve such important tasks as individualization and modernization of the educational process, increasing the effictiveness of training and motivating students [4].

Work purpose objective. The purpose of this work is to describe the option of conducting a theoretical physical education lesson with elements of freestyle wrestling in a comprehensive school using information and communication technologies.

Results and their discussion.

In the existing education system, there is a situation when where it is necessary to comprehend, change old methods and methods of teaching in order to accept new pedagogical decisions. The reason for this has become the global deffusion and mass use of ICT. Similar technologies are commonly used to ensure the interaction and transfer of information between the teacher and students in existing systems of open and distance education. A modern teacher must not have only ICT knowledge, but also be competent to apply this knowledge in his / her professional activities. [6].

The use of ICT helps to achieve increased accessibility and quality of education, development of students' personality [3].

A modern teacher can use information technologies as a means of creating and sharing information [2].

Combining full-time and distance forms of education helps to diversify the class-lesson form of classes for students from ordinary types of educational activities [5].

In developing the educational program “Elements of Freestyle Wrestling”, a section of theoretical training has been included in the curriculum, which included the following topics: Safety in freestyle wrestling, hygiene, lessons form of clothing/dress code, injury prevention; The history of freestyle wrestling; The Rules of freestyle wrestling.

Themes “The History of Freestyle Wrestling” and “Freestyle Wrestling Competition Rules” were independently studied as homework and later on, knowledge test was carried out in theory classes in the classroom with a projector using the Plickers program.

The Plickers learners knowledge testing system (Plickers) consists of a website and a program on a mobile device (tablet, smartphone). This program gives an opportunity to create a test online and to interview a large number of students (more than 60 people). Using the Plickers program in the learning process, it is possible to conduct an interactive survey in a short time, thereby speeding up the process of communication between a teacher and students and contributing to the increased attention of students to the material [7].

Using the teacher’s mobile device (tablet or smartphone), the Plickers program reads QR codes from student cards. Every student has his own card, turning it, it is possible to give four different answers. A class list is created on the computer in the program, so with the help of it you can find out the answers of every student [8].

Further there is a version of a theoretical lesson of physical education with the elements of freestyle wrestling in a secondary school using ICT:

1. A text document is created in the Microsoft Office Word program, which describes the history of free-style wrestling and some terms from the terminological dictionary of wrestling or a document containing the rules of freestyle wrestling competitions.

2. The file is published on the Internet using cloud technologies (Google Drive, Yandex.Disk, Mail.Ru Cloud).

3. On the web portal "Education web 2.0." Using the web resource "Web2edu.ru" in an electronic diary, students are given some homework to familiarize themselves with the topic of theoretical training, which gives some instructions for doing homework and a hyperlink is given to the file located in the online storage (Google Drive, Yandex.Disk, Mail.Ru Cloud).

4. At the theory lesson in the classroom with the help of the Plickers program, testing is carried out on the topic: “The history of freestyle wrestling” or the “The Rules of the competition in freestyle wrestling”.

5. At the end of the test, the Plickers program allows the teacher to obtain statistical data on all students in the class and set marks in an electronic journal on the web resource Web2edu.ru. The program “Plickers” gives an opportunity to save test results and keep reports on classes, besides it helps to compare the level of theoretical knowledge among students of different classes.

Conclusion:

The process of business and interpersonal communication has become much faster and easier due to the penetration of innovations in many areas of human life, and seriously has changed it [1]. The teacher of physical education through the use of ICT can improve the learning process.

Information and communication technologies can be used during physical education classes with elements of freestyle wrestling in a secondary school.

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UDC 37

TOPICAL ISSUES OF THE USE OF INFORMATION TECHNOLOGY IN THE TEACHING OF PHYSICAL CULTURE IN HIGH SCHOOL

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Abstract. The article deals with topical issues of the introduction of information technology in physical education and the educational process. The main problems that exist in the implementation of this process are considered, the ways of their solution are indicated. The implementation of the educational process in the field of physical culture and sports is not possible without the use of modern information technologies. The model of introducing various types of information technologies in the Kabardino-Balkarian State University is considered. H. M. Berbekova. The introduction of information technology in physical education and educational process increases the efficiency of learning activities in high school.

Key words: information technologies, physical culture, presentations, sports events, the learning process, modern education, technical support, simulators, physical exercises.

Organizing of the learning process is based on application of the modern information technologies and there is no way to realize it without these approaches at the current stage.

Application of information technologies in physical culture and sport realized in the next activities:

- Development and processing of lecturer's and instructor's working documentation;
- Conducting of athletic events;
- Scientific and research activities in physical education and sport.

It should be noted that the role of physical education due to the process of formation of future specialist is given a low priority. But achieving the goals for innovation and educational purposes, which had been identified by the modern education system, is impossible without the proper management of students' physical education formation.

The implementation of new information technologies in the physical education process, wich will contribute to the formation of physical and sport activity skills is a major challenge for the process of modern sport education. [3]

Application of information technology in teaching gives range of new possibilities:

– there is an expansion of the meaningful opportunities of classes, as the application of information technologies gives an option to demonstrate physical exercises and right technic of their implementation;

– Methods and organizational forms of teaching which contribute to the harmonious development of the personality in the current circumstances are being improved.

– New various types of educational activity with the application of information technologies are are coming througha all the time.

– The learning process is getting more creative, students become more active and the skills of independent studying are formed.

– The process of introduction of the information technologies in the field of physical education is relatively modern, this is one of the reasons for a number of problems that have a place to be in this field.

The process has not been completed yet and is now underway. The reasons for the duration and complexity of the informatization of physical and pedagogical process are:

– imperfection of the material and technical base of higher educational institutions;

– continuous processes of updating software and hardware;

– the low level of computer literacy of teachers and students [6].

The use of information technologies significantly increases the efficiency and effectiveness of the educational process at physical education classes.

Thus, an active use of the training materials and video products will give an opportunity to increase the level of demonstration aids of classes carried out.

Interactive learning is one of the tools for the informatization of physical and sports education.

Interactive teaching methods were found to be increasingly important at the present stage of educational technologies development in physical culture and sport.

The main aim of interactive teaching methods is skills of independent work development in the process of relevant knowledge obtaining. [2]

Information technologies are an integral part of physical and sport education at Kabardino-Balkarian State University.

Information technologies are used in various areas:

– The study process, implementation of current and boundary control students' knowledge;

– monitoring the physical state of the students;

– preparation process to different kinds of competitions;

– processing and analysis of the competition results;

– development and testing of computerized sports exercise equipment.

The application of information technologies contributes to the improvement of educational activities and to the formation of a new concept of conducting classes in physical culture and sport.

The improvement of effectiveness of physical education classes is getting higher due to application of information technology; increasing the degree of visibility, thus stimulates the degree of motivation of the_students and creates the most comfortable conditions for them.

So, using of workout videos increases the degree of memorization of the material by students and allow them to master the technique of correct exercise.

For instance, the demonstration of materials of sports competitions, life and sport achievements of famous athletes greatly motivates students.

Watching workout videos allow to analyze the implementation of physical exercises and perform work on errors. The use of information technology is being implemented at all stages of the physical education and educational process at the Kabardino-Balkarian State University.

The complex of information technologies on physical culture and sport has been developed at the Institute of Pedagogy, Psychology and Physical Education and Sports Education at KBSU,

This complex includes: training manuals in electronic form, electronic library systems, with which the university has signed agreements, teachers and students have expanded access; audio and video materials, materials of the current and boundary control in the form of tasks for conducting online testing; «Open University system»; exercise equipment and software products.

Complexes of information technology developed according to the next selective courses: fitness, swimming, football, basketball, volleyball, karate, strength training, boxing, table tennis and badminton [4].

The training process is also accompanied by the use of computer technologies. Due to the training process, computer technology is the link between the trainer and the student.

The coach develops a model for conducting training sessions, and students performs exercises according to the developed model, and then all the necessary adjustments are made.

The use of computer technology for the training process purposes is effective in case of the adequate technical application and compliance to the quality criteria of the planned result.

During the training process, acquire of sport and computer skills by the student, occurs in several stages:

1st stage is visual: implies the demonstration of motor actions in order to create a full complex of exercises from individual elements;

The 2nd stage is technical: consists of application technical means for shooting of exercises, and then processing this material by means of special programs;

The 3rd stage is analytical: students analyze the data and make corrections if necessary.

Thus, the use of information technologies is necessary at all stages of physical and sport education, this allows to increase the effectiveness of classes and achieve the goals in the framework of the modern concept of the innovative education.

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INFORMATION TECHNOLOGIES IN DRAUGHTS

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Abstract. The article is devoted to the features of using information technologies in draughts. The possibilities of using modern computer draughts programs for analyzing games and improving the level of sportsmen are shown.

Key words: information technologies, computer program, draughts, training of sportsmen.

Nowadays, modern scientific researches in general and in the field of physical culture and sports cannot be successful without comprehensive information support [1; 3].

The possibilities of information technology for man are multifaceted, because they promote effective decision making. Using of distance tools and forms of education is increasing [6].

Draughts is a kind of sport in which training with use of information technologies is advisable. Draughts have a long history and have always been highly respected by all segments of human society. Draughts is an interesting intellectual game, an excellent cultural leisure. This game trains logical and disciplined thinking, accurate calculation, helps to improve memory, develops associative thinking and a sense of responsibility. These qualities are very important in any kind of professional activity.

In recent years modern computer technologies have had a tremendous impact on draughts. It touched both beginners and highly skilled draughts players. A lot of training, analytical, information retrieval programs have appeared destined to help players of any level.

Using of special educational computer programs is increasing in the process of training of beginners. This method of improving the skills of sportsmen involves the new ways of learning with using the capabilities of various mobile communication instruments such as laptops, tablets and smartphones.

The use of computer programs in the training process allows not only to summarize basic information on the draughts theory of debuts, but also to study the tactics and strategies of the middle game and the endgame more profoundly. It allows learners to increase the level of their game.

Despite the widespread use of computers in training of draughts players, there is still no complete system for training draughts using information technologies. There are only some techniques in this area in other intellectual games, for example, in chess. In the training of chess players, the use of computer technologies was most fully considered in the theses of I.V. Mikhailova "Training of young highly qualified chess players with the help of computer chess programs and "Internet"" [4] and V.A. Poloudin " Learning to play chess using computer technology as a comprehensive tool to improve the intellectual and the playing abilities of younger schoolchildren" [5].

Nowadays is impossible to achieve great sucsess in draughts without using a computer. Many of the strongest draughts players of our time devote most of their time to computer training. Draughts computer programs are constantly being improved. They are the perfect assistants to the draughts players.

Information-research draughts programs contain more than hundreds of thousands of games. Their bank is constantly being replenished. You can quickly select information from them: by debut index, by ratio of information, by draughts structure, etc.

For a person who plays draughts regularly, the draughts program is, first of all, the most powerful tool that opens up new opportunities for analyzing and learning the technology of the game.

Analysis with use of draughts programs has two main distinctive features. It is the speed and accuracy of the sportsman's actions [2].

Analysis of any type (direct, reverse, etc.) at any phase of the game is performed much faster using software than in the classic handwritten version. In addition, professional draughts programs usually have special tools to optimize analytical work.

Analysis with use of a computer program is always reaches high accuracy. This results are unattainable for humans in many cases. Moreover, with the advent of draughts programs, for the first time in the history of the game, it became possible to make an analysis completely free of mistakes.

Programs are used in everything that includes practical analysis of the games. On the one hand, with the help of programs, mistakes made by players, missed opportunities (winning or drawing, combinations, sacrifices, attacks, etc.) are identified, possible variants are considered, etc. Thanks to the programs, the number of qualitatively analyzed games published in print and on the Internet.

On the other hand, the advent of computer programs was the motivation for the development of debut theory. New systems are being created, old ones are being finalized, including classical schemes and variants. Many debut systems are analyzed until the result. Due to the programs, the theory of modern russian draughts (toss of moves and “flying draughts”) is being rapidly advanced in recent years.

The most popular russian draughts computer programs are "Tundra", "Edeon", "Aurora" and "Tornado" [7].

Modern interactive information technologies can be used in active distance learning, including training of children with disabilities. In the XXI century, distance

education will be predominant, since its advantages: openness, continuity, economy, and accessibility create favorable conditions for learning [3]. Draughts is a game that blends seamlessly with information technologies. The computer allows not only to have an electronic partner-trainer, but also to conduct lectures, lessons, webinars on the Internet, to receive information, to update the bases with the draughts games. It should be mentioned that such wide opportunities are possible in intellectual sports only.

The Internet allows you to get information about the biggest draughts competitions and the creativity of the strongest draughts players in the world.

This opportunity is provided by numerous sites with the theme of "draughts". These are sites of draughts schools, draughts associations of various levels (city, district, regional, republican and federal), as well as sites of authors-developers of computer programs.

The XXI century is characterized by the active penetration of modern multimedia technologies into the conduction of various competitions at any levels. This also applies to draughts, where electronic boards are used to record the moves of the game and then broadcast any game on the Internet.

On the Internet, there are various websites that offer to play different games, including draughts. There are opportunities to play with a computer or with a real opponent.

The most popular sites among draughts players are Gambler, VOG and PlayOK. Sportsmen can even participate in tournaments, both individual and in team.

Many athletes use such sites, both for independent additional training and for the development of practical game skills.

Internet technologies help to study the draughts game more profoundly and to improve the level of athletes. Computer helps to exchange various draughts information on the Internet, to use the draughts games databases, and to monitor the performances of leading athletes quickly.

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PROBLEMS OF MASKULINIZATION OF ATHLETES CONDITIONAL MALE SPORTS AND WAYS TO OVERCOME THEM

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Abstract. The article identifies the problems of the influence of conditionally male sports on the psychological state and quality of life of women. Ways of overcoming these problems through the use of an experimental program for updating femininity of female athletes in conditionally male sports based on body-oriented therapy have been proposed.

Key words: female sportsmen of conventionally male sports, masculinization, female sports, body-oriented therapy.

The leadership of women in political, economic, business, sports and other spheres of life poses topical issues and problems for the society that require active discussion and resolution. By acquiring new rights, mastering the sphere of activity traditionally regarded as male, women often lose that uniqueness provided for by the dichotomous picture of the world. The social roles of “housekeeper of warmth and comfort”, “faithful wife”, “caring mother” or, in the absence of a family - “sisters of mercy”, “educator”, “teacher” are replaced by new life roles - “woman leader” , "Woman politician", "policewoman", "woman-weightlifter" and others.

Women are actively involved in almost all sports that have long been considered solely the prerogative of men (weightlifting, martial arts, hockey, etc.). Defending their right to participate and seeking official recognition and inclusion of women's teams in major competitions, athletes, meanwhile, face serious problems of masculinization in the physiological, psychological and social aspects. In the process of performing sports exercises, under the influence of intense physical and mental stress, this category of women undergoes significant changes in the body at the physiological and psycho-emotional levels. A male-shaped figure is formed, the sharpness of movements and the gait feature are developed, excess muscle mass appears, restructuring of all functional systems occurs, specific character traits and behavior peculiar to men are actualized. Meanwhile, the birth and upbringing of children, the maintenance of home comfort, the beauty and warmth of relationships remains the main function of a woman. Self-realization of women is important not only in sports and professional activities, but also in personal life with the preservation of biological and socio-cultural rights and traditions. (3.9). Under these conditions, it is important to identify current theoretical approaches to addressing the gender identity of female athletes included in the system of strict specific requirements of men's sports, and to propose practical solutions to possible psychological problems and difficulties. The psychological comfort of athletes and the harmonious development of their personality is the basis of an integrated training system. Domestic and foreign authors are unanimous in their opinion that in the process of practicing sports activities there are changes in the gender identity of women, but in the works there are few practical ways of solving the identified problems.

Objective: actualization of femininity and optimization of the emotional-personal sphere of female athletes in conditionally male sports based on body-oriented psychotherapy.

The object of the research is the gender identity of female sportsmen of conditionally male sports. The subject of the research is the process of femininity updating in female athletes in conditionally male sports based on the method of body-oriented psychotherapy

The hypothesis of the study. It was supposed that to overcome possible psychological difficulties, improve performance and self-realization in sports, harmoniously combining sports and professional activities with all other areas of life for women will be helped by a specially built system of psychological assistance with the inclusion of effective methods for solving intrapersonal gender conflicts.

Stages of research. Stage 1, which explored the issue of gender identity in women's sports: an analysis of the literature, the definition of a general psychological and conceptual model of research direction. Stage 2 included the stages of conducting a research study among female athletes in conditionally male sports with the help of diagnosing the definition of gender identity; developing an effective psycho-corrective program based on the body-oriented psychotherapy method; conducting an experiment; analyzing the data obtained and formulating conclusions regarding the hypothesis put forward.

Research methods. Analysis of scientific and methodological literature, survey methods: interviews, interviews, questioning, the method of observation, the method of “Masculinity - femininity” S. Bem, the method of subjective assessment of situational and personal anxiety by C.D. Spielberger (adaptation of Yu.L. Khanin), methodology for assessing the level of satisfaction with the quality of life of R.S. Eliot (adaptation of N. Vodopyanova), methods of mathematical and statistical data processing.

The experiment was carried out in a group of 24 female athletes of conditionally male sports (ice hockey, football) from May to December 2018. The psycho-

training program (Table 6) included 15 meetings (group and individual). The athletes included in the experiment were divided into 3 groups, each with 6-10 people.

The aim of the research is to update the femininity of female athletes in conditionally male sports and optimize their emotional-personal sphere on the basis of body-oriented psychotherapy.

The range of tasks included the definition of the gender identity of athletes, the identification of possible psychological difficulties and problems of this category of girls and women, the development of an effective program for updating femininity.

The basis of the program being developed is the method of body-oriented therapy, which involves working with "muscular armor" - a specific muscular tension, which is associated with emotional status and character. From the point of view of psychology, the block is a steady tension of a body behind which there is an actual problem of the person. Morphofunctional indicators of the muscular block represent a special state of the tissue, characterized by its shortening, increase in density and stiffness. At the moment of psychological stress, when a person experiences a gamut of emotions, from extremely negative to the most positive, the body contracts. If the emotions are realized and manifested, then a reaction followed, the tension goes away. If the reaction did not follow, or the person restrained himself, then the tension - full or partial - remained, leading to the fact that a number of specific blockages appeared in the body. The block is retained in the body until the situation is resolved through response or with the help of special psychotherapeutic practices. The founder of the body-oriented approach in psychotherapy V. Reich singled out muscle blocks as the main obstacle to the self-realization of the individual. Tension, which arose as a result of unconscious negative emotional states, Reich considered a factor that prevents a person from living a full life in harmony with other people and nature. Aggression, fear, anger, anxiety, domination, hypercontrol, other feelings reflect the specifics of sports activities in conditionally male sports. Suppression of natural femininity, negative emotions, demonstration of masculine features forms disharmonious personality development of athletes. Within the framework of organized observation, at the stage of the ascertaining study, muscular blocks were noted in the majority of female athletes. The principal feature of body-oriented psychotherapy is to work with the body and its muscle clamps, which concentrate unconscious experiences and problems. The delicacy of the goals and objectives of psychotherapy for the actualization of femininity in athletes limits the use of verbal techniques, classical clinical conversation: girls and women are not willing to openly discuss their deeply personal experiences. Within the framework of body-oriented psychotherapy, negative mental states are realized and worked out: the psychologist gently interacts with the client, the sportswomen, performing a number of simple manipulations, achieve a positive effect of the exercises.

The proposed technique for actualizing femininity uses the principle of relaxation and tension of certain muscle groups of the body during dance and motor, acting and other exercises, thereby achieving a deep muscular and emotional impact, which aims to relax, restore muscle status and optimize the psychological health of athletes. Performed under the melodic music harmonious dance techniques, the creation and residence of certain images, the performance of unusual movements of general physical orientation have a beneficial effect on the mood and well-being of athletes, form the softness and flexibility of movements, actualize femininity and natural beauty. The formation of a positive image in the minds of athletes leads to an increase in self-esteem, all-round development and self-realization in life and sports.

It was found that in women engaged in sports activities in conditionally male sports, the formation of androgynous type occurs, with the predominance of masculine features in appearance and behavior. (Fig. 1).

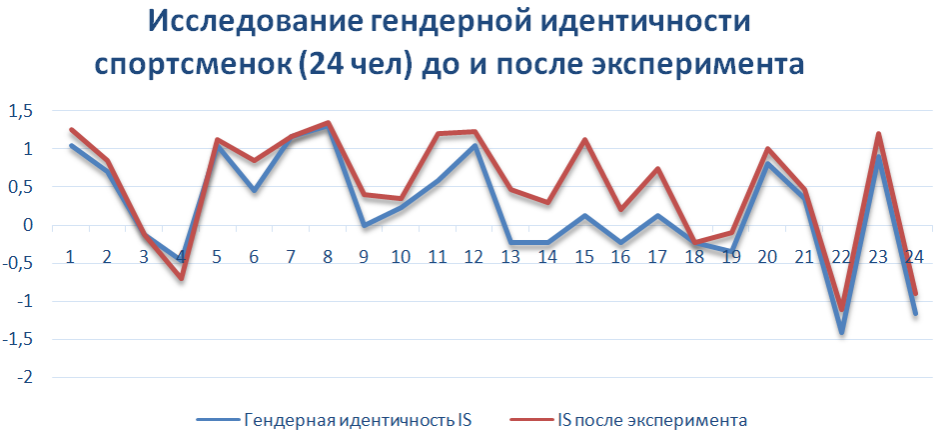

Fig. 1 – Results of use of the program on updating of femininity of sportswomen conditionally men's sports

For female sportsmen of conditionally male kinds of sports, socialization is characteristic not only in the biological aspect, but also in the socio-psychological one, which consists in the violation of the realization of gender behavior and interaction. The "courageous" qualities necessary for achieving sports results suppress the natural femininity and threaten the psychological health and comfort of athletes: intra-personal contradictions lead to an increase in personal anxiety and the formation of negative emotions and feelings in women.

Correlation analysis established a statistically significant dependence of the level of personal anxiety of female athletes on gender identity. The average anxiety rate is high. Satisfaction with quality of life has average values, the lowest values are noted in such scales as "Self-control" (problems with self-control) and "Negative emotions" (high indicators of negativization of feelings and emotions).

A repeated study of personal anxiety, conducted after the experiment, determined the average level of anxiety in the group of 38.2 points. T. Wilcoxon Criterion is in the area of importance (Temp = 2). The results of determining the level of anxiety are presented in Figure 2.

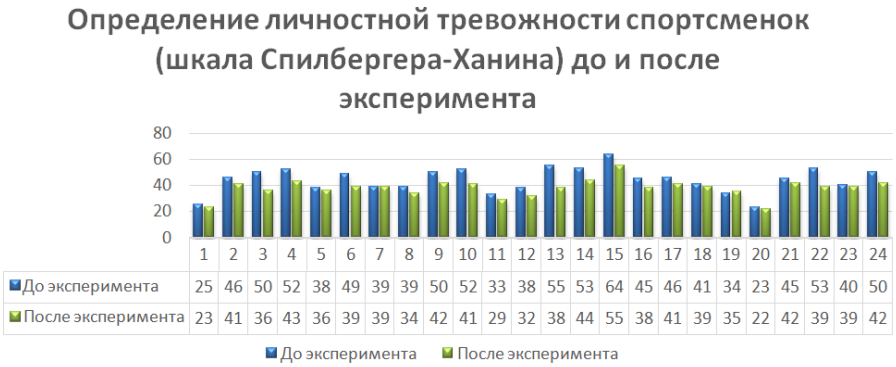

Fig. 2 – The results of determining the level of anxiety are presented

A repeated study of the level of satisfaction with the quality of life confirmed the initial hypotheses that the actualization of feminine traits has a positive effect on the emotional-personal area of life of female athletes in female sports. The results are presented in Table 1.

Table 1 – The results are presented

Показатели	ИКЖ (до эксперимента)	Уровень удовлетворенности	ИКЖ (после эксперимента)	Уровень удовлетворенности
Работа (карьера)	27,6	средний	27,7	средний
Личные устремления и достижения	27,1	средний	28,4	средний
Здоровье	28,9	средний	28,8	средний
Общение с друзьями (близкими)	29,3	средний	36,3	высокий
Поддержка	27,2	средний	27,7	средний
Оптимистичность	28,2	высокий	32,4	высокий
Напряженность	27,3	средний	30,04	высокий
Самоконтроль	23	низкий	26	средний
Негативные эмоции	23	средний	28	высокий

Conclusions: A characteristic feature of traditionally male sports is an increased level of aggressive behavior and specific requirements for constitution, endurance, and other anthropometric and psychological indicators. An organized sociological survey, the data of psychological observation confirmed that female athletes of conditionally male sports demonstrate masculine qualities. The determination of the gender identity of the female athletes revealed the prevalence of the androgynous personality type with a tendency towards masculinity. The proposed program to update the femininity of female conditional male sports is based on the principles of body-oriented approach in psychotherapy. Physical activity and special exercises familiar to girls ensure the effectiveness of body-oriented psychotherapy in comparison with other methods in working with athletes. Specially developed techniques and exercises are designed to create a perfect image of femininity for each athlete; allow you to express repressed negative emotions and feelings; find a state of harmony, confidence; increase self-esteem of girls and women. The statistical significance and reliability of the research results were revealed. After going through a special psycho-correctional program to update feminine traits in female male sports, the level of anxiety decreased, the ICG index (quality of life index) increased, especially in such areas of life as: communication with relatives, optimism, and absence of negative emotions; in gender identity, the indicators of the feminine type and the shift towards femininity are increased. Statistical values, indicators and relationships are detailed in the main part of the work.

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PSYCHOLOGY OF GAME SPORTS IN THE CONTEXT OF THE RESULTHOME AND EXIT COMPETITIONS

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Abstract. Psychology is an important component of any sport. Help take off tension before a competition to an athlete who is thinking about winning, teach him to feel your partners on the site – a small part of the work of a sports psychologist and coaching staff. The most difficult preparation is work in team types sports, where in addition to an individual approach to each athlete, it is important to organize the work of the whole team as a single organism, given the psychological climate in the team and the ability of individual players to work in a bundle. As a rule, the team psychologist is the head coach, who gives the main installation – to win, but there is another phenomenon in sports – fans support, which has a very significant impact on the result.

Key words: sports psychology, individual approach, support fans, home and away matches, team sports, HFA (home-field advantage), "The benefits of a home site."

Introduction One of the phenomena of sports - the support of fans, which is very significant effect on the sports result. It is impossible to imagine a sport without spectators, and even more so modern. Today, fans are an integral part of the sports industry. It is known that the audience attended the competition in the ancient period. Thus, at the Olympic Games in ancient Greece, up to 45,000 observers gathered at the slopes of the Kronoss hill. In those days, the audience was given a big role. It was they who decided whether an athlete deserves to participate in the Games or not.

Over the past century, psychological training has become an integral part of the sport of higher achievements. Today in Russia, a whole department at the center of sports medicine of the Federal Medical-Biological Agency is engaged in this process, the main task of which is to train the winners.

Each type of sport requires its own psycho-type, which includes temperament, mobility of the nervous system, strength, and stability.

Long-distance running is a very monotonous sport, but, despite this, the main task of any process is to enjoy the process itself.

Shooting is a sport in which psychological training is considered more necessary than physical. It is here that the correct installation of a trainer can be crucial.

In hockey, in addition to classic roles (attackers, defenders and goalkeepers), there are so-called tough guys playing the role of fighters and able to “shake up” the team at the right moment for their team, hindering the success of rivals with power techniques, provoking a fight that frightened the most dangerous team forwards opponent and the protection of the most valuable players in their team.

The influence of the fans is difficult to measure, but the factor of the native walls, the loud support of the fans creates an effect that cannot be described in words, there is a certain feeling of euphoria, which is also transmitted to the players. A match can be compared to a rock festival, where energy and the desire to move grow as you get closer to the stage. Athletes are driven by the desire to perform as best as possible in front of their fans, the so-called mental infection effect. In football, fans are even called the "twelfth player."

The right attitude is the key to success in any kind of sport, however, this attitude can affect absolutely unprepared person absolutely wrong.

Fear of losing so pinched athletes that they could not show their capabilities and showed results below their level.

A hormonal explosion can give an athlete additional energy, but often he also becomes the culprit in the disruption of the normal functioning of the body: muscle tension leads to technical errors, and pre-start excitement can literally empty a person.

When an athlete works at a high level of his resources, psycho-physiological burnout occurs, that is, fatigue, overstrain, denial of any activity at all.

Researchers at the University of Wisconsin-Madison in the United States conducted an experiment that measured "androgen receptors" responsible for producing testosterone. Male mice were given different tasks, and it turned out that with success on their own territory, the receptors became more active. Simply put, mammals are genetically programmed to produce the best results on their own territory.

Purpose of the study: Identify the relationship between sports results and the support of fans at away and home games.

Methodology and organization of research.: In the course of the study, the results of sports games on home grounds and guests of different levels of sportsmen, football players, basketball players and hockey players were studied.

A subject for separate studying was team interaction.

Among the problems that were in the field of view of coaches and sports psychologists, a significant place is occupied by the “problem of an alien field”. According to sports statistics, the teams of approximately equal strength often win the “home team”, i.e., those athletes and sports teams that perform in their gym, at their stadium, in their city, in their own country. No wonder they say that houses and walls help. On the “own field”, the athlete is helped by the usual conditions of life, training, performances and, perhaps, the main thing - the support of the spectators who encourage their team,

their favorites and thus create a certain psychological doping for the athletes.

Sports psychologists believe that athletes show better results, realizing the fact of the presence of fans (at home games), this fact is confirmed by the statements of athletes and management.

Former defender and vice-captain of Liverpool, Jamie Carragher, believes that tribune assistance works even before the start of the game: "It happens that you get a main surge of strength from fans already during the warm-up. If the stadium is full, and the atmosphere is injected, you realize that it will help. There is no doubt that the effect is. A good atmosphere and an early goal can inspire the team, inspire ten percent. Joe Cole commented on the Champions League semi-final in 2005 and 2007. The noise, which was heard from the stands from the fans, had a negative impact on the opponents, and a positive impact on us. Chelsea was much stronger then, but the noise helped us even the odds.

A huge confirmation that the support of the stands is important is Shakhtar Donetsk, which, due to the occupation of the region by the militants, was forced to leave its hometown.

"It's very difficult to play and live without fans," said club director Sergei Palkin. "This is our main problem." Shakhtar finished the first two seasons in second place, having missed the championship for the first time since the 2008/09 season, in the 2014/15 season he lost nine points at home - before that, only three were missed in three seasons.

Usually in leagues the percentage of home wins varies between 40-50% (depending on the league), while guests win only 25-30% of games. If the home team is leading in the account after the first half, then it wins in 75-85% of cases, for guests this figure is at the level of 60-65%.

In some leagues there are home teams that show a particularly good result in their home walls. We are not talking about such teams as Barcelona or Bavaria, which are equally well in their leagues, both at home and away. For example, in the season 2015-2016. Spanish Seville scored 14 home wins (73.68%), and not a single away. 13 home wins (76.47%) of Menhengladbach Borussia allowed the team to take 4th place in the Bundesliga, while on the road the team scored only 4 wins. In the French Ligue 1 at home, Bastia played a strong role (57.89% - the fourth figure among teams), which, due to an unsuccessful away game, took only 10th place in the final table.

At the same time, attention should be paid to the development of the fan movement. It is the fans who most actively support the team in home matches, and not ordinary fans.

Below is a statistics of different types of team sports, showing the impact on the game of the competition venue.

Table №1 – Statistics of hockey matches of 2017–18 held at home stadiums and away on the example of 1 team Atlant born in 2004

	Home games				**Exit games**			
Team	Matches	Wins	Defeats	Draw	Matches	Wins	Defeats	Draw
Atlanta	71	50	15	0	68	50	18	0

According to the table number 1, we can conclude that the team Atlant 2004 wins more often than it loses. Goals scored almost two times more than missed. Also, it is worth noting that the winnings at home stadiums are approximately equal to the number of winnings at a party. That is, a team can win or lose no matter where the game is played. But in the away game the probability of missing a goal is higher.

Table №2 – Статистика футбольных матчей, проведенных на домашних стадионах и в гостях ЧФР Клуж, Манчестер Юнайтед

	Home games				**Exit games**			
Team	Matches	Wins	Defeats	Draw	Matches	Wins	Defeats	Draw
Manchester United	5	2	0	0	9	5	4	0
CHFR Cluj	9	3	2	0	6	3	3	1

In the statistics (table 2) of the Manchester United football club, you can see that at home games there are much more victories than defeats, and in away games the ratio of wins and losses is almost the same. There are more goals scored in CHFR Cluj at home games than missed ones, and in the situation with away games that goals scored, that goals conceded - an equal number

.

Table №3 – Statistics of several football teams at once: Manchetser C, Chelsea, Manchester U, Arsenal, Liverpool, Newcastle

Team	**Home games**				**Exit games**			
	Matches	Wins	Defeats	Draw	Matches	Wins	Defeats	Draw
Manchetser C	10	7	1	2	10	7	1	2
Chelsea	9	9	0	0	11	5	2	4
Manchester U	10	8	1	1	10	2	2	6
Arsenal	9	5	1	3	11	4	4	3
Liverpool	11	4	2	5	9	4	5	0
Newcastle	10	5	2	3	10	2	5	3

Immediately striking data home games: the number of goals scored victorious heads significantly exceeds the number of missed, at the same time as in the field competitions, these values either equalize or worsen towards losses.

The result of such a mental infection in "home games" is the demoralization of the opposing team and

inspiration of one's own (table 3). [1], [2]. Matches, more than 60% of victories were won, and only 20% on the road (Table 4).

Table №4 – Statistics of games of several tournaments at home and away

Home games				Exit games			
Matches	Wins	Draw	Defeats	Matches	Wins	Draw	Defeats
Champions League	60	-	40	Champions League	20	-	14
Europa League	33	33	33	Europa League	33	33	9
Cup of Russia	-	-	-	Cup of Russia	100	-	-
Premier League	54	15	31	Premier League	14	29	15

Thus, it is determined that most teams, regardless of age and type (football or hockey) of sports, perform better in home competitions than in guest fights.

Take for one more example two big American leagues –NBA and NHL. In all two, the champion is determined not by a single game, as in the NFL, but in a series of matches. The element of surprise is kept to a minimum. The strongest must win. How to determine the strongest? It turns out that there is almost a concrete way to give an answer to this question: just look at which team has the advantage of its field / site / ice.

Table №5 – The results of the teams with the advantage of their site, NBA playoffs (1999–2011)

Series	Wins	Defeat	Winning percentage
First round	84	20	80,77%
Conference Semifinal	41	11	78,85%
Final Conference	13	13	50,00%
The final	10	3	76,92%
Total	148	47	75,90%

As you can see, according to the results of table No. 5, in 70% of cases the team with extra home match in reserve becomes the winner of the final series. Moreover, the argument "the best team has the advantage of the site, so everything is logical" does not work because of MLB: in this league the result of the team in the regular season does not affect the HFA.

Table №6 – The results of the teams with the advantage of their site, NHL playoffs (2006–2011)

Series	Wins	Defeat	Winning percentage
First round	30	18	62,50%
Conference Semifinal	12	12	50,00%
Final Conference	8	4	66,67%
The final	4	2	66,67%
Total	54	36	60,00%

In table number 6 you can notice a similar trend as in table number 5. The winning percentage is 60%, which exceeds the results of games without the advantage of its site. Regardless of the sport, whether it is basketball or hockey, the high level of professionalism of the teams and the importance of the competition - matches held in their own field or court can be considered a worthy advantage over their rivals.

For a good example, consider the statistics of home and away games of the Russian national football team over the past 10 years.

Table №7 – Games of the Russian national football team (1992–2012)

			Домашние игры			Выездные игры		
год	Матчей	Побед	Поражений	Ничья	Матчей	Побед	Поражений	Ничья
2018	7	3	3	1	4	2	2	0
2017	9	2	3	4	3	2	1	0
2016	6	3	3	0	6	0	3	3
2015	6	3	2	1	3	3	0	0
2014	7	5	0	2	6	1	2	3
2013	4	3	0	1	6	2	2	2
2012	7	4	0	3	6	3	1	2
2011	5	3	0	2	5	1	1	3
2010	3	1	2	0	3	3	0	0
всего	54	27	13	14	42	17	11	13

Отсюда видим, что в домашних играх количество From here we see that in home games the number of victories dominates over the number of defeats, while in the away matches the national team shows itself worse. From this we can conclude that the players and the whole team need the support of their fans and that the "Law of the Native Walls" [4] is present (table No. 7).

Research results and discussion. Usually in leagues the percentage of home wins varies between 40-50% (depending on the league), while guests win only 25-30% of

games. If the home team is leading in the account after the first half, then it wins in 75-85% of cases, for guests this figure is at the level of 60-65%.

In some leagues there are home teams that show a particularly good result in their home walls. We are not talking about such teams as Barcelona or Bavaria, which are equally well in their leagues, both at home and away. For example, this season the Spanish Sevilla won 14 home wins (73.68%), and not a single away. 13 home wins (76.47%) of Menhengladbach Borussia allowed the team to take 4th place in the Bundesliga, while on the road the team scored only 4 wins. In the French Ligue 1 at home, Bastia played a strong role (57.89% - the fourth figure among teams), which, due to an unsuccessful away game, took only 10th place in the final table.

Features of the venue of the competition. Due to the increased prestige of the sport and the intense rivalry of the athletes, the competition venue is becoming increasingly important. The factor of "own" and "alien" field becomes one of the most important in determining tactical tasks in team sports - football, basketball, handball, hockey, and volleyball.

In football, when some competitions are held in two rounds, with equal points scored, the winner is determined by the greater number of goals scored in a foreign field (in this case, one goal on the opponent's field is two).

Naturally, such a situation significantly affects the choice of strategy of competitive activity, the general tactical plan of a particular game, etc.

Features of the competition venue are becoming increasingly important for other sports. This is due to many reasons, for example: geographical and climatic conditions, the nature of refereeing, equipment of competition venues and equipment, etc. The fans' behavior is also important. With their help, fans create a certain psychological background for the competition. The reaction of the fans affects the state of the athlete, since it creates a positive or negative emotional background of the competition.

To cheer up their team, spectators sing national anthems, hymns of their sports clubs, popular national songs, and also encourage athletes with the help of banners and chants.

According to statistics, home stadium games are more successful for teams than away.

Firstly, in the case of an away game, the players get much less support from the stadium, not looking at the fact that the most loyal fans of the team always travel with her, but the number of fans from the host side is always much greater.

Secondly, a large role is played by the psychological factor, or rather, the mood of the players. Winning at home and a draw at a party is considered to be a championship schedule for football, so in most matches the players tune in to a draw in guest fights.

Statistics say that the fans help to get 0.3 goals or 0.5 points per game, and therefore the native walls and the inspirational songs of the fans carry a weighty score.

That is, instead of the principle "the strongest wins," which is the cornerstone in the sport, "the one who is at home wins," this fact is manifested in the following criteria:

- firstly, the advantage of its site works in all sports, in all leagues and at all times. Teams that play at home win and win more often, and this advantage usually increases in the playoffs;

- secondly, different sports are exposed to HFA in different ways. In the North American leagues, the most favorable to the home team are the locking MLS (69.1%) and the basketball NBA (62.7%). The least sensitive to the "home wall" factor is baseball MLB (54.1%). In brackets - the percentage of home wins.

- thirdly, the impact of HFA depends primarily on the sport, and not on the league. In children's baseball, the hosts win at about the same percentage as in the professional league (53.3% and 54.4%). Similarly, women's and men's basketball show approximately the same percentage (61.7% in the WNBA and 62.7% in the NBA), soccer in the USA and Italy (69.1 and 67%), etc.

Conclusion. Athletes and fans just need each other. And currently, the loss of one component threatens the existence of the sports industry as a whole. Specifically for athletes, the presence of spectators is very important. They feel not only support, but also responsibility. Therefore, the success of the team depends on the number of fans who are most observed at home games, rather than away games.

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PSYCHOLOGICAL ASPECT OF AMATEUR RUNNING

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Abstract. The article on the basis of the analysis of scientific and theoretical literature and practical research examines some psychological aspects of amateur running in the Far North (Yakutia). On the basis of the conducted research among the runners on long and marathon distances (men and women aged from 27 to 60 years) the motives and main types of results of people engaged in running are revealed: improvement of physical condition, development of personal qualities, positive emotions and outlook, expansion of the communicative sphere.

Key words: sports, physical education, amateur running, runners, personality, psychology of personality, activity, position, motivation.

The relevance of the study. Scientific and technical progress, professions related to mental work, computer games, social networks determine a sedentary lifestyle among the representatives of the young generation and those of mature age. The consequences of this are numerous diseases and changes in the mental state of the population. In this regard, physical culture and sports become relevant.

Scientists distinguish these two concepts. Thus, the aim of physical culture is to improve health and the main aim of sport it to produce maximum results and sports awards.

The development of sport in the twentieth century led to the separation of three levels in it, differentiating according to goals, conditions, and results: mass sports, sports of higher achievements, professional sports [11, p. 34]. The most common sport among fans (mass sport) is running. The reason is that the running is simple and easily accessible. The benefits of running have long been known to everyone, for example, improvement of the immune system, improvement of endurance, maintenance of a fit figure, a good metabolism. In addition to physical activity benefits, running has psychological benefits for a person. The review of the works of famous scientists, psychologists, trainers show that they see the special influence of running on the human brain.

The climatic conditions of the Far North (Republic of Sakha (Yakutia) differ in a number of characteristics that are not typical for central Russia. Extremely low temperatures, long winters, short summers, light starvation during the polar nights and light excesses during the polar days lead to a decrease of motor activity and breakdown. Meteorological factors (temperature, lack of oxygen, abrupt light changes, frequent magnetic storms, solar radiation intensity, frequent changes of air masses, high humidity, barometric pressure drops, etc.) influence both physiological health and mental state of human.They affect the clinical course and outcome of diseases; reduce the adaptive capacity of the organism.In general, climatic features affect all sides of human existence in the Far North.

These conditions are undoubtedly stressful not only for the residents of this region. They also have an impact on the condition of professional and amateur runners.

Experts say that to identify the effectiveness of professional and amateur training, a detailed study of climatic and geographical conditions of the Far North is recommended. These researches must include the specific of the region, issues of antioxidant system participation in the compensatory restructuring of athlete'sbody in the North, and additional research should be conducted to study the influence of Yakut koumiss, natural biological active additives on the body of athletes in all periods of training process [4].

At the same time, modern sports training that is aimed at achieving high results requires the involvement of the physiological reserves of the body and mental abilities of the athlete.

At the same time, modern sports training that is aimed at achieving high results requires the involvement of the physiological reserves of the body and mental abilities of the athlete.

The analysis of the training programs of marathon-runners of the Republic of Sakha (Yakutia) allowed to identify the features of the organization of the training process and the best way to plan physical activities in preparation for the main competitions of the year. The analysis of their sports diaries indicates that a large part of the training was conducted by personal trainers, but they used the group method of training, including the competition within the group and a favorable psychological climate [9].

From this, we can make a reasonable conclusion about the importance of psychological preparation of the amateur long-distance runners and marathon runners. In the conditions of the Far North not only motivation is important for amateur athletes, but also the training of volitional personality traits.

Motivation occupies a key place in any activity, being a kind of "center" of personality, around which all its qualities are structured. The concept of "motivation" is related to the concept of "motive", which is understood as: incentives to activities related to meeting the needs of the subject; a material or ideal object that induces and determines the choice of the direction of the activity for which it is carried out; perceived reason underlying the choice and actions of the individual [7, p. 219].

Russian pedagogue and psychologist A.A. Rean emphasizes that the motive is "the inner motivation of the individual to do a particular type of activity, associated with the satisfaction of a particular need" [8, p. 56].

Haruki Murakami says: "Once I was lying on a bed in a room in a Paris hotel. I was reading the International Herald Tribune. The topic of the issue was the marathon.

There were several interviews with well-known marathon runners, and each of the runners was asked what kind of mantra he or her repeated while running to support themselves. I must say, this interview was a great idea - it is just what we need! What an exiting thoughts are on the minds of people who run the 42 kilometer-long marathon! The marathon is such a cruel sport: without a mantra, you cannot reach the finish line.

So, one of the marathon runners said that he always repeats the mantra while running. His older brother (also a marathon runner) taught him to repeat the following words. “Pain is inevitable. Suffering is optional". This is his mantra. Let me explain by example. So, you run and think: “It’s so hard. I can't take it anymore. ” It is difficult for you - it is a fact, and you cannot get away from it. But only you decide if you can continue or not. This is your choice.”[6].

In the process of becoming an athlete, the motives of the runners may change. Scientists consider various aspects of motivation in the groups of runners. So, E.P. Ilyin notes that the most popular motives are motives for self-improvement, self-expression and self-assertion, the desire to stand out from the crowd, to satisfy material and spiritual needs [2, p. 59]. I.G. Kelishev notes that the main motive of playing sports is the motive of intragroup sympathy [2, p. 61]. B.J. Kretti in his research claims that the main motives are the desire to be in a stressful situation and overcome it, to improve qualities, and to improve the social status. [11, p. 36].

Along with motivation, a complex of strong-willed personality traits is extremely relevant for athletes in the conditions of the Far North. Such personal qualities as purposefulness, determination, courage, perseverance, perseverance, endurance, and self-control, independence and discipline allow you to build the schedule, taking into account adaptation to climatic conditions.

The methodology. The subject of the study was the relationship between motivational characteristics and the results of runners. The purpose of the study is to determine the motives of runners and to characterize the main types of their results. The objectives of the study were: to identify the attitude of amateur respondents to running in general, to identify the changes that occurred after the amateur running. To solve the tasks, the following methods were used: analysis of the scientific and methodological literature of the practice of sports psychology; questionnaire "The attitude to running and physical activity"; statistical data processing. The study consisted of the following stages: Organizational stage - the formulation of goals and objectives of the study, the study of thematic literature, the definition of research methods. The second stage is the collection of basic material through a survey of subjects. The third stage is the analysis and synthesis of experimental data, the systematization of the results, the formulation of the main conclusions.

The results of the study and the discussion. To determine the effect of running on various aspects of life the study was carried out. During the study, 25 people aged between 27 and 60 were interviewed. The respondents were asked the following questions:

– How long did you do athletics / running?

– What changes have occurred to you during the course?

– Do you advise friends to practice this sport?

Among the motives indicated by the subjects, it was mentioned, first of all, the improvement of health (including the correction of body weight, maintaining the body tone). In our case, the results of changes are very important, since they o decide what the final result of the study will be. We present the answers of the respondents in the table:

.

Table 1 – The results of a survey of amateur runners of Yakutsk (men and women aged from 27 to 60 years)

№	Amateur runners	Questions		
		How many years (months) do you go in for athletics (run)?	What changes have occurred?	Do you recommend friends to go in for athletics (run)?
1	Responder 1	1,5 years	I became tougher and more confident	My wife runs at least 5 km..
2	Responder 2	-	Exacerbation of arthritis	-
3	Responder 3	2,5 years	First of all I lost weight, I significantly improved my health. I increased stress tolerance and discipline. I expanded social circle	I advise everyone I know, I am agitating.
4	Responder 4	Almost 2 years	The environment has changed, new goals, joy, communication with people, etc.	I recommend to everyone.
5	Responder 5	Half a year	I tore a meniscus, in connection with this there was a fear of running, unwillingness to do it	-
6	Responder 6	5 years	I became a candidate for the master of sports. I have increased self-esteem	I train my son
7	Responder 7	5 years	I lost weight, my legs got stronger. The general condition has improved, energy has appeared, many new acquaintances, friends, goals and objectives	Amateur run necessarily advise everyone to do
8	Responder 8	3 years	The daily regimen appeared, I follow the state of health, the goals and objectives are set by the whole family. We set a goal: one run outside the region every year with his wife and son	Always agitating to do amateur run
9	Responder 9	Over 30 years with breaks	I have improved Muscular tone, I understand quickly, new goals are born, joy in life. My social circle has expanded	I recommend running
10	Responder 10	2 years	Every month there are some changes in the body. The character has become more severe, it	I recommend running to everyone especially after

№	Amateur runners	Questions		
		How many years (months) do you go in for athletics (run)?	What changes have occurred?	Do you recommend friends to go in for athletics (run)?
			is strong-willed. Self-knowledge has expanded, attitudes towards life have changed	serious illnesses, because movement is life.
11	Responder 11	45 years	I have an improved attitude, a feeling of comfortable existence. I have many new acquaintances and friends	I would not recommend running to everyone. It is only a tool for changing consciousness
12	Responder 12	2 years	An effective way to relieve stress, exercise has become easier to endure. Attitudes toward the world around have changed, the social circle has increased	I recommend with my example and the examples of others
13	Responder 13	6 months	I have a desire to run on the result and run a marathon. With each proper workout, I feel a surge of strength, energy and new opportunities. My attitude to life is changing. More free time appears. My environment is changing	Old friends take an example from me, they run regularly
14	Responder 14	1,5 years	I have a lot of new interesting friends. I have become more demanding of myself. Thinking has definitely changed, rethought some values.	I recommend running
15	Responder 15	3 months	Dyspnea and cough disappeared, lung condition improved. I lost weight and became more confident in myself	Sport is the personal decision, whether you want to do it or not, it's up to you
16	Responder 16	10 years	I started running thanks to my father. In psychological terms, there were only infrequent mood swings	My family fully supports me and goes in for sports with me
17	Responder 17	5,5 months	I chose running because it is free and accessible to everyone. Two months later, the muscles got stronger. My appearance has improved. Because of this, self-esteem has increased, the social circle has expanded, productivity has increased	Running changed my life for the better, I definitely recommend it to everyone
18	Responder 18	More than a year	I entered the university where there were high demands on the physical condition of the students. Running changed my life, laziness and procrastination disappeared from it. Along with this, a good mood has come and depressions are gone	I convinced my close friends and relatives to play sports
19	Responder 19	2 years and 4 months	When you run a certain distance, you need to overcome yourself and reach the final point, despite the weight and pain of your body. It perfectly trains the power of the will	My girlfriend supported me and we started spending more time together
20	Responder 20	7 years	Running helps to cope with personal problems. When you run alone, you have a lot of free time for your own thoughts. Often it was during jogging that I found solutions to my problem	I advised running for my whole family, and now we are the supporters of healthy lifestyle
21	Responder 21	10 months	Running has become my way of life, it is a necessity. Running made me more disciplined and confident. I made a lot of new friends who are also runners.	I recommend to relatives, friends and acquaintances
22	Responder 22	25 years	I began to run after the doctors diagnosed me with a strong limp. But running healed my body and soul. There were first victories. It changed my life. I realized that you should never give up	My wife began to run with me , to support me
23	Responder 23	4 months	I started improving my health, I began to walk more and spend less time at the computer. There were new acquaintances, I became more sociable	I recommend to everyone
24	Responder 24	11 years	At first it was hard. But it was worth it. The body began to look much better than before, it became easier to communicate with people, made good friends and now I have a girlfriend	I recommend to my friends and girlfriend
25	Responder 25	1 yeat	During this year, I have had both ups and downs in running. Very often I wanted to quit all this, but I managed. I have strengthened my willpower and became more motivated	I recommend to my family

Analysis of the experience of amateur run, recorded in the questionnaire, suggests that the subjects have different work experience: up to 1 year - 5 people; from 1 to 3 years - 10 people; from 5 to 7 years - 4 people; 10-11 years old - 2 people; 25 years - 1 person; over 30 years (30, 45 years) - 3 people.

From this statistics, we can see that most of the participants of the study are young people who, relatively recently, began to engage in amateur run.

Analysis of the descriptions of the results showed the following results:

1. The respondents in most cases note an improvement in their physical condition: they get rid of excess weight and bad habits, their body tone improves, their appearance improves and they develop a healthy lifestyle.

2. A significant part of the results relates to the development of personal qualities: motivation is increasing, new goals and objectives are formed, the organization of the daily routine and activities is taking place.

3. The subjects noted bright emotional feelings associated with a new positive thinking, changing worldview.

4. Respondents consider the expansion of the communicative sphere as a result of amateur run (the emergence of new friends, the development of important communicative qualities).

Respondents often mentioned: “Increased endurance”, “Increased confidence”, “Appearance of new acquaintances and friends”, “Appearance of new goals and objectives”, “Running relieves fatigue and stress”, “Running has become a rest for me ","When I run, I meditate, "etc. Thus, for the majority of respondents, running became a kind of free and effective psychological session, after which the person felt an increase in self-esteem, a surge of vigor and strength.

In general, the subjects noted a positive change in state (90%), and only 2 people (10%) noted a deterioration due to the aggravation of the physical condition because of their acquired and chronic diseases.

The conclusions.Thus, an analysis of sports literature, the respondents' attitude towards running and the results of classes show the following: most people emphasize the positive impact of running and athletics not only on the physical, but also on their mental state. New psychological abilities are revealed: the ability to plan and model the mode and schedule of life, to set clear goals, to solve life and sports tasks.

An important role is played by the group character of the classes, since it allows creating competition within the group and a certain psychological climate.This aspect is repeatedly emphasized by experts as an important element of the runner training methodology.

In this case, we can confidently say that running is not only a sport, it is a way of life and a special way of thinking. In some cases, after a systematic amateur run, runners are able to compete with professional athletes. Endorphins are produced during jogging. These hormones motivate a person to be active, increase the mood and make a person happy.

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PECULIARITIES OF PSYCHOLOGICAL MAINTENANCE OF TRAINING THE ATHLETES SPECIALIZING IN UNIVERSAL FIGHT

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Abstract. Development of psychological maintenance is one of the directions of increasing the efficiency of training process and competitive activity of athletes of universal fight. the differentiated approach to athletes taking into account individual and typological features on the basis of the theory of the leading trends L.N. Sobchik proves to be relevant.

Key words: universal fight, individual and typological features, psychological maintenance, theory of the leading trends.

Introduction. High requirements to physical and psychological preparedness of law enforcement officers of Russia defined development of a number of professional and applied sports. The penitentiary system was no exception, for which of the developed sports, universal fight has the greatest application, part of which is to overcome an obstacle course, shooting at a target and using methods of fighting defined by law as the main service-applied exercises [3; 5]. At realization of educational and training process on universal fight and training of athletes for competitions the main problematic issue was the psychological escort of athletes caused by lack of special knowledge in trainer's structure as defined the purpose of our work [2].

Methods and organization of a research. The research was conducted on the basis of research laboratory of "Diagnostic and improving technologies" of Academy of the FPS of Russia during the period from 2015 to 2018. The participants were 51 cadet-athletes, consisting of groups of sports improvement in the universal fight. As methods of a research observation, a conversation, testing by means of the techniques adapted L.N. Sobchik are chosen: "The standardized multiple-factor method of a research of the personality", "The individual and typological questionnaire", "A method of the portrait choice". By means of psychodiagnostic methods the prevailing type of the personality was determined by L.N. Sobchik for the purpose of creation of recommendations to trainer's structure on optimum ways of communications and accounting of individual and typological features in the organization of training process.

Results of a research and their discussion.

As a result of the conducted psychodiagnostic research the prevalence among the athletes specializing in universal fight of the 4th type of the personality according to L.N. Sobchik was revealed.

An analysis of the results showed that except prevailing 4 types (61%) meet at athletes of universal fight the 1st (7%), the 2nd (14%) and the 3rd (18%) types of the personality. This fact, in our opinion, states the need to take into account individual typological features in the training process.

Athletes of the first type, according to L.N. Sobchik, characterized by the greatest severity of such individual and typological features such as introversion, sensitivity and anxiety. During the work with athletes of this type of personality the trainer's structure should consider the weakness of the motivation of achievement of sports results, due to the reduced motivation of achievement and self-realization [4]. In this regard there is relevant a holding the individual motivational conversations directed to achievement of high sports result. During the work with this category of athletes as the motivating factor the praise stated alone and demonstration of personal trust can be. Due to the fact that the athletes of this type of reflection is expressed, they are often characterized by low self-assessment therefore they need personal support providing feeling of internal comfort and safety. At the same time the command and administrative communicationstyle chosen by the coaching staff and public criticism will not have a motivating effect, but, on the contrary, will disorganize the activity. In communication with peoplein this category it is necessary to consider slow rates of assimilation of information and also need of a quiet situation for optimum level of intellectual activity. Due to the pronounced anxiety of persons of this type in the organization of the training process, the principles of stability and planning should be adhered to.

In athletes of the second type, lability, extroversion and anxiety act as expressed individual typological personality traits. Because of expressiveness of lability, these athletes have unstable motivation. Due to the severity of lability, these athletes have unstable motivation. In this regard, it is advisable to increase sports motivation by meeting the basic need for this type of self-demonstration for the type - to engage the audience in training, not to hinder the posturing of athletes, to use public praise for sporting achievements. Due to the instability to the monotony of persons of this type, it is advisable to build a training process with the introduction of new exercises and a dynamic change of activities.One of the motivating factors is the communicative functions of sports, as well as participation in outdoor training events and competitions. Due to the high lability of persons of this type, the assimilation of new information is more effective due to the emotional coloring of the material being fed, and not due to logical constructions and reasoning. High extroversion of this category

of athletes suggests a greater susceptibility to group activities than to individual ones. In the course of communication, athletes of this type have a tendency to touchiness and to deny their own mistakes and shortcomings, they are predisposed to quick-tempered behavior, and, at the same time, have the ability to quickly calm down. In communication for persons of this type it is characteristic to follow authoritative personalities.

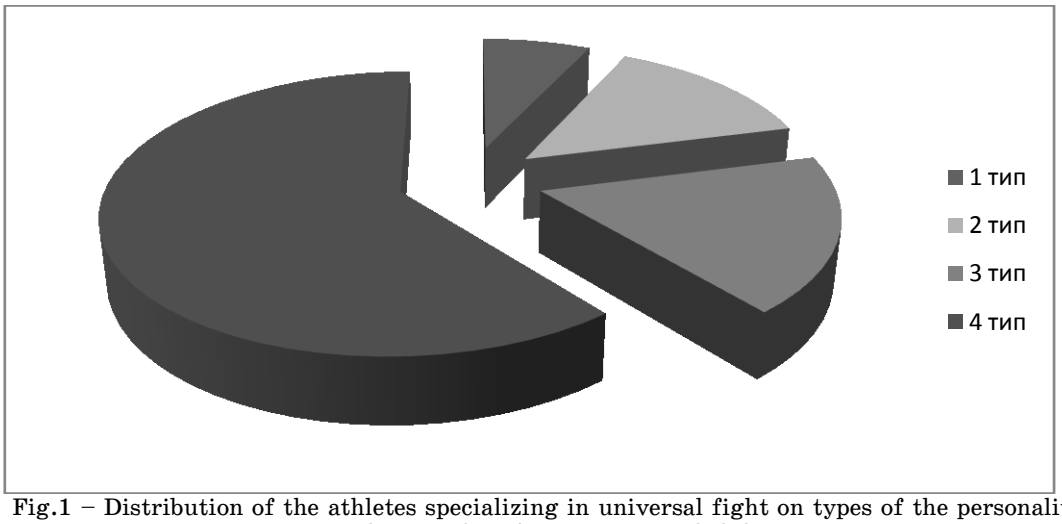

Fig.1 – Distribution of the athletes specializing in universal fight on types of the personality according to classification L.N. Sobchik

Athletes of the third type are characterized by the expressed rigidity, stenichnost and introversion. In view of such individual typological predisposition, they have a pronounced motivation for achievement and purposefulness, stability of motivational orientation.Forathletes this type of great importance of wealth and social status.This fact should be taken into account in the motivation of athletes of this category where the award of sports qualifications, improving the social status of an athlete, material gain, etc. can be the best motivating factors. The coaching staff should take into account that the problem in communicating with athletes of this type is the severity of rigidity, which is why the latter are not able to easily recognize their own mistakes. In this regard, an effective method of persuasion is the model of negotiation in accordance with which the authorship of a useful persuasion must be attributed to an athlete ("How truly did you once notice ..."). The pronounced rigidity of persons of this type leads to a slow mastering of information, and the information is more easily assimilated in the form of schemes and algorithms.Individually-typological features of persons of this type cause and low ability to change, significant inertia of behavior, poor switching from one type of activity to another, which should be considered when building a training process.

Besides, the coaching staff should consider the expressed conflict and sensitivity of athletes in this category and as well as the ability to respond to the explosive type.

Athletes of the fourth type, which are the predominant type among persons specializing in universal combat, are characterized by the manifestation of such individual-typological features as spontaneity, extraversion and sthenichnost. In this regard, they are characterized by a pronounced motivation to achieve, a pronounced need for physical activity, a need for leadership and independence, and are most suited for martial arts [1,4]. Due to the existing individual-typological features, athletes of this type can give aggressive reactions to the requirements of strict submission from the coaching staff and, thus, completely out of control of the head. To avoid such problems, the coaching staff should, on the one hand, have great authority, and on the other hand, not abuse command-administrative measures and base interaction with athletes based on the principles of cooperation. In order to increase sports motivation, individuals of this type should increase their degree of freedom, support mentoring over less qualified athletes. In the course of training the coaching staff, it is advisable to take into account the specific features of the thinking of individuals of this type - the lack of propensity for reasoning and logical constructions, a synthetic type of thinking, better learning information in action, by examples. In addition, individual typological characteristics of athletes lead to poor tolerance of monotony and monotony, which should be considered during the planning of the training process.

Conclusions

The prevailing type of the personality at the athletes specializing in universal fight is the fourth type according to L.N. Sobchik which characterized by bigger expressiveness of spontaneity, a stenichnost and extraversion.

For the most effective interaction of coaching staff with athletes specializing in universal combat, individual-typological features should be taken into account when choosing ways to build communications and organize a training and competitive process.

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UDC 796

CONCEPT OF TRAINING IN FIGHTING METHODS OF FIGHT OF STAFF OF DEPARTMENT OF INTERNAL AFFAIRS OF RUSSIA

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Abstract. Article is devoted to questions of improvement of process of physical training of staff of Department of Internal Affairs, including fighting methods of fight. The efficiency of educational and training process when forming skills of fighting methods of fight is proved by the author.

Key words: physical training, staff of Department of Internal Affairs, skills, fighting methods of fight.

Introduction. Daily operational and service activity of staff of Department of Internal Affairs pits them against aggressive offenders and need to enter with them confrontation, to prevent attack and to carry out power detention [3]. Often offenders exceed employees on physical and motive indicators and in such situation employees not always have potential to render opposition therefore get wounds and injuries. Cases are also frequent when employees uncertainly own a service weapon and fighting methods of fight show confusion that inevitably leads to emergencies. In this regard there is an imperative need in increase in professional skill in the system of physical training of staff of Department of Internal Affairs and encouragement of office and applied sports, including the fighting methods of fight contributing to forming and the development of mental qualities, movement skills and emotional stability at implementation of office activity [2; 6].

Purpose. For the purpose of training of staff of Department of Internal Affairs for successful execution of operational, office and fighting tasks of professional activity, it is necessary to focus attention on ability to independently make decisions adequate to current situation and to work in stressful situations of confrontation with the violator [2].

Justification. As it is known, the purpose of physical training for ATS personnel is the education and maintenance of physical readiness for the successful implementation of operational, service and combat tasks, as well as the skillful and legitimate use of physical force, including combat techniques of combat [1].

The following tasks are accomplished when training employees for combat techniques [1; 6]:

- the formation of a conscious understanding of the tactical basis of the struggle and the ability to implement it in conditions of real resistance;
- improvement of psychomotor functions of the body - speed, strength and endurance, contributing to the implementation of the technical basis of techniques in situations of resistance;
- the formation of the initial ideas about the motor composition of the reception.

In view of this, specialists in combat skills in training sessions should focus on the process of acquiring, developing and improving the skills of combat techniques, not forgetting about ensuring the personal safety of employees, nurturing their courage, determination, courage, resourcefulness and initiative. At the same time, employees, when mastering a painful hold or stroke, are at risk of injuring an assistant. Therefore, the existing system for assessing the skills of using combat techniques of combat is aimed at minimizing the damage to assistants, and not at determining the level of formation of these skills [5]. This fact is an obstacle in the formation of the skill, since the one who performs combat techniques, observing the formalities, neglects the more valuable content. As is known, in the formation of a skill, consciousness is directed towards the main elements of the process, the perception of a changing environment and the results of an action. During a duel, the employee's attention should be focused on finding a favorable dynamic environment (situation) suitable for delivering a blow or making a throw, that is, on decisive positions that contribute to a high impact of the action [1; 2].

The operating procedure of estimation not providing confrontation with elements of unpredictability of movements and the directions of action in compliance with the value of ongoing efforts of the assistant acts as the following obstacle of forming of skills of fighting methods of fight. And as is well-known reliability of skill is provided with set of methodical receptions and depends on extent of development of physical and mental qualities of the employee [4].

Guarantee of successful detention of the offender are, the skills of protective and shock actions created up to standard, in the course of mastering of the section of fighting methods of fight and also ability to apply them in a stressful (extraordinary) situation. The skill forms by execution of specially picked up exercises and tasks, and is improved in the conditions of specific activity, that is in situations of contact confrontation in the unpredictable and constantly changing circumstances [4].

At the same time, the analysis of curricula and working programs revealed that forming of skills of fighting methods of fight happens in the conditions of need of studying of rather large volume of a training material for rather small period of training [4]. And there are some difficulties of forming of skills of the fighting methods of fight caused by a number of the factors influencing execution of elements of receptions, among which the different amplitude and motion speed of the attacking part of a body of the opponent, a possible shot of the opponent, the number of opponents, use by the opponent of a knife or heavy subject. Besides, actions of the employee should happen in the legal framework.

Findings. Summarizing the above, we note that the methodology and concept of teaching combat fighting techniques must continually contribute to the qualitative development of tactics and techniques, as well as the acquisition of sustainable skills in fighting techniques, since the life and health of citizens and law enforcement

officers themselves depend on their level of professionalism [3].

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UDC 796

WAYS OF IMPROVEMENT OF SKILLS OF THE SHOCK EQUIPMENT OF STAFF OF BODIES OF INTERNAL AFFAIRS OF THE RUSSIAN FEDERATION

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Abstract. Article is devoted to one of the most important components of technical equipment of law enforcement officers – the shock equipment. The author proved ways of improvement of the technology of blows by hands and legs and protection against them in the course of educational and training duels and that formation of skill quite long process which in many respects depends on the number of repetitions and variability of execution of physical action.

Key words: shock equipment, physical training, vocational training, improvement, skill, listeners.

Introduction. The operational, service, and combat activities of internal affairs officers are fraught with fights. To emerge victorious in such a fight, it suffices to inflict one exact powerful blow. To do this, employees must have skills in percussion techniques with their hands, which must be constantly improved in physical training classes [1], during which the emphasis should be placed on special exercises, on their alternation with general developmental exercises and exercises with their own body weight. The most appropriate would be to build exercises based on first performing general developmental exercises, then special exercises on the spot and in motion, flexibility exercises, and a series of imitating shocks in combination with blocks, paired exercises, acrobatic exercises and ending with a series of special breathing exercises [2].

Purpose. In order to form and improve practical skills of percussion techniques with hands, it is necessary to train the synchronous work of arms, legs and the whole body, and to develop the variation of percussion techniques, "fluidity" performed by attacking combinations [5]. Becoming a skill is a long process, which largely depends on the number of repetitions and the variability of the performance of the motor action. That is why the process of learning shock techniques should be carried out through the development of three stages: the production period, the stabilization period, the automation period.

Justification. In general, punches are the most important component of an employee's technical equipment. When applied, it is required to get to a certain place of the enemy in order to achieve a certain negative result for him and thus, to maximally take him out of combat capability [4]. In view of this, the impact of the impact technique is more dependent on the ability to control the motor skill at high speeds. To properly master the skills of percussion technology with your hands, it is necessary to thoroughly study the entire set of relatively significant, unchanging and sufficient parts of the action, called elements of technology [3], to solve the motor (motor) task.

Training sessions are the main form of training. In the course of training sessions, the skills of percussion equipment are formed and improved. Educational and methodical classes are designed to form the students command and methodological skills and abilities. Here, knowledge is improved and skills are improved in all forms of physical fitness. An important role is also assigned to the level of professionalism of the teacher. The task of the teacher is to clarify the goals and content of the upcoming classes, to study the relevant methodological literature, to practice the techniques and actions that will be demonstrated. The most important element of the training process is the prevention and elimination of errors, injury prevention, with the help of high-quality demonstration, as well as a detailed and clear explanation of the technique of their implementation [2].

As a rule, hand strokes are applied to the shortest path, without swinging (swing). A quick and powerful blow that has a tremendous (incapacitating) effect on the enemy's body can be performed if the listeners have sufficiently mastered the technique of striking with a relaxed hand, excluding the work of antagonist muscles. With the help of a powerful push of the foot and the successive transmission of movement by turning the hips of the body and shoulder - the hand moves. As a result of such a "send", a relaxed hand makes moving forward at high speed and directly at the target acquires the rigidity necessary for the strike, which ensures the rationality of the transfer of the efforts of the attacking hand to the target. The experience necessary for this can be gained by practicing a blow to a pneumatic inflatable bag [5]. At the initial stage, the rhythm (pace) of the beats is chosen arbitrarily. However, over time, the body adapts, the arm muscles relax, and exercising it is more appropriate to use the whole body when hitting. Here there are already developed qualities: accuracy, cohesion and speed of percussion actions [3].

Next, you need to optimize the speed-strength. Here we will come to the aid of exercises with weights, performed with regard to the technique of percussion actions, because of which the corresponding nerve centers are excited, which leads to an increase in the motor units involved in the impact. As weights, dumbbells, cores, stones can be used [4]. It is not recommended to carry out exercises with burdening in a state of fatigue (or fatigue), since this can lead to stiffening of the muscles and, which will inevitably lead to increased negative trends in technical performance. Each exercise with the burden should correspond to the exercises on the speed of movement (displacement).

The most effective way to develop the skills of striking with the relaxed hand is to strike the rubber tire of the car wheel with a hammer, as a result of which only those muscles that contribute to an increase in the force of the blow are exercised. The alternate press of a wrist expander is also very effective for several hours a day. Therefore, each time, strongly squeezing, sharply straining and immediately relaxing muscles, this action leads to the disappearance of fat pads between the fingers, as well as an increase in arm weight due to muscle mass, which will greatly increase the strength and power of the

blow. In addition to the above, fingers are strengthened from squeezing actions, which reduces the risk of injuries during strikes [3].

Findings. Thus, the foregoing indicates that it is advisable to use means, methods and forms of sports training for effective training in strike technology and protection against them, which will have a positive effect on the technical, physical and psychological training of internal affairs officers when performing professional tasks related to physical strength [5].

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UDC 378.172

THE INFLUENCE OF PHYSICAL ACTIVITY ON THE LEVEL OF STRESS EXPERIENCED AS ONE OF THE INDICATORS OF ADAPTIVE CAPACITY OF THE BODY OF A FIRST-YEAR CADET

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Abstract. The article shows the relationship of adaptive capacity of cadets with the level of stress experienced by them. The characteristics and results of the study of the dynamics of the level of stress experienced by cadets in the process of exposure to their body physical activity.

Key words: cadets, physical activity, adaptation.

Introduction

The study of the characteristics and changes in various types of human functional states invariably refers to the problem of the influence of stress factors on the body. This is especially as relevant when a person gets into a new, unusual for him/her environment, which is typical for the first-year cadets of higher military educational institutions. Many scientists have considered the specificity of various functional states of the human organism, which may arise under the direct influence of any unusual factors [1]. They propose to combine these states into a common group, because there are certain regularities of formation and manifestation of response of the organism of this type.

It should be noted that the process of physiological adaptation is directly related to the formation of a common adaptation syndrome (GAS) in the human body, that is, a complex of sequential reactions that occur in the body under the influence of damaging factors and provide its adaptation to specific conditions of existence. In this case, the general adaptation syndrome is a nonspecific reaction of the cadet' s body to the effects of irritants, including the changed climatic characteristics of the environment, which trigger the mechanisms of emergency adaptation. Some authors refer to general adaptation syndrome as a reaction to stress. At the same time, they refer to stress as a set of physiological reactions that occur in the human body under the influence of a specific stimulus that poses a threat to the body, that is a stressor [2].

Note that stressors are not only considered to be harmful effects, but also the so-called "limit" values of elements of the normal working situation.

A first-year cadet faces not only unusual mental influences, but also regularly recurring long-term effects of intense physical activity. This circumstance forces his organism to include protective reactions occurring in three stages and united by the concept of "general adaptation syndrome". The first stage of "anxiety" triggers such changes in the cadet's body as: muscle tension, increased frequency of breathing and pulse, increased blood pressure, the appearance of anxiety. This stage reflects the mobilization of all resources in the body of the first-year cadet. Thus stability of an organism to negative influences of external and internal environment decreases that perversely affects a condition of physical and mental health of the cadets. The second stage of "resistance" provokes the adaptation of the body to the continuing effects of stressors. In the process of this stage, the body's resistance to stressors increases. The third stage of "exhaustion" occurs under the action of superstrong or superlong stimuli and is accompanied by a decrease in the stability of the cadet's body.

In our experiment, we tried to achieve the effect that the state of the organism, called constructive stress, did not turn into destructive, which in the development of the body is triggered by the processes of destruction, due to the formation of which the cadets may develop some disease. Maintaining a normal dynamic balance between the first-year cadet's body condition and the external environment is facilitated not only by the neutralization of the stress factor, but also by increasing the body's functional capabilities through regular exercise of dosed intensity.

Methods and organization of research

In order to quantitatively assess the level of stress experienced by first-year cadets, we used the calculation method proposed by Sheikh Zade Y.R. and his co-authors in 1998. The formula for calculating this indicator is as follows:

LS(The level of stress) = 0.000126*HR*PAP*3√M, where:

– HR - the heart rate,

– PAP - pulse arterial pressure, defined as the difference between systolic and diastolic blood pressure,

– M - body weight (kg).

The normal value is 1.00-1.50, the average value is 1.51-2.00, and the expressed value is more than 2.00.

In total we examined 122 first-year cadets aged 18 to 20 years. Here is an example of calculating LS a randomly selected first-year cadets assigned to an experimental group.

LS = 0.000126*74*50*3√75 = 1.96 - before the experiment;

LS = 0.000126*72*42*42*3√73 = 1.59 - after the experiment.

Let us also present the data of the calculation of a randomly selected first-year cadets assigned to the control group.

LS = 0.000126*80*50*3√74 = 2.12 - before the experiment;

LS = 0.000126*78*45*3√74 = 1.84 - after the experiment.

Further we will reflect the average values received by us at definition of level of stress tested by first-year cadets (table 1).

Table 1 – Indicators LS of first-year cadets in the control (KG) and experimental (EG) groups (n=122)

Indicator	The level of stress			
	I stage of the experiment		II stage of the experiment	
	EG	KG	EG	KG
X	2,020	1,998	1,490	1,780
σ	0,069	0,067	0,056	0,059
M	0,009	0,008	0,007	0,008
t	$p < 0,05$		$p > 0,05$	

As can be seen from the data in Table 1, at the beginning of the experiment, i.e. before the application of the developed method of training, the level of stress experienced by first-year cadets was almost the same among the cadets who were referred to both control and experimental groups, and was on the border of average and expressed stress (Figure 1).

Note that the average and expressed levels of stress experienced are characterized by the presence of so-called subsyndromes:

- Emotional-behavioral;
- Vegetative;
- Cognitive;
- Social, changes in communication [3].

These subsyndromes reflect the negative impact of the stress experienced by a first-year cadet not only on the emotional, but also on the vegetative component of the cadet's body.

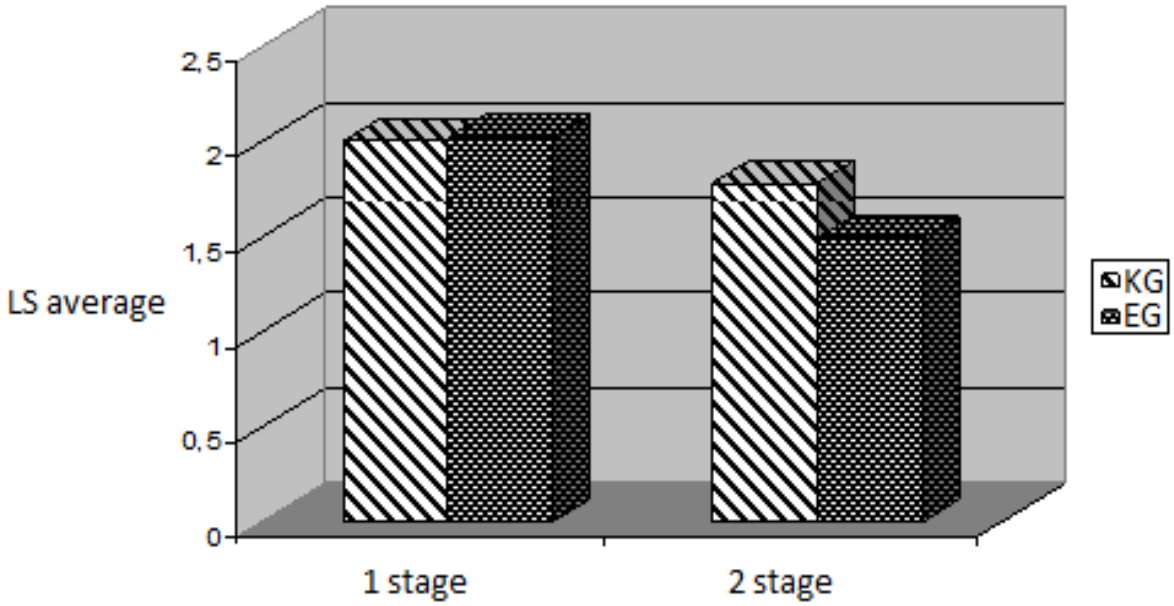

Figure 1 – Average values of first-year cadets of the control (KG) and experimental (EG) groups (n=122)

At the second stage of the experiment there were changes in the values of the studied indicator. For example, in the control group, the LS decreased slightly, by 10%, while in the experimental group, the stress level of the cadets went back to normal and decreased by about 35%. The discovered difference between the LS indicators of the first-year cadets from the control and experimental groups is 3.5 times in favor of the experimental group, which confirms the effectiveness of the methodology used.

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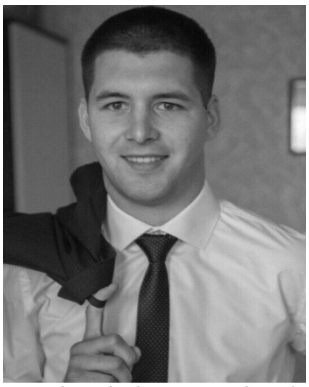
UDC 796

THE INFLUENCE OF PHYSICAL ACTIVITY ON THE LEVEL OF STRESS EXPERIENCED AS ONE OF THE INDICATORS OF ADAPTIVE CAPACITY OF THE BODY OF A FIRST-YEAR CADET



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Abstract. The article presents the results of the study of the attitude of teenagers, who are studying in grades 6-9, to activities related to the realization of the VFSK "GTO" in the school system. The correlation between the number of registered students in the system of physical culture and sports movement and the number of students regularly entering the personal account of the participant is revealed. The results of the survey determining the motivation to meet the regulatory requirements of the complex "Ready for work and defense" (GTO) are presented. The all-Russian sports complex (WFSC) GTO represents a national standard of physical fitness of students and it is one of the most powerful mechanisms for the formation of motivation to maintain systematic sports training. There are determined awareness of teenagers on the history of the complex, knowledge of the stages and norms of GTO for students. The most effective organizational forms of testing of the GTO complex are revealed. As a result of this study, it was found that the realization of the standards of the GTO complex is best carried out in the form of festivals, family competitions, sports events, involvingschool amateur performances and performances of famous athletes.

Keywords: teenagers, the realizationof the GTO complex, motivation, attitude of students, organizational forms of testing of the GTOcomplex.

Introduction. Currently, the Russian Federation has adopted a number of measures aimed at improving the system of physical education in order to improve the health of the population. In the "Concept of long-term socio-economic development of the Russian Federation for the periodup to 2020", aswellas in the "Nationaldoctrine of education development of the Russian Federation until 2025" emphasizes that the priority of the modern education system is the formation of humanneeds in strengtheningtheirown health [1]. Physical training has become a sociallyapprovedform of humanactivity in society. All-Russian sports complex GTO, primarily aimed atpromotingregular physical culture and sports, asone of the mostimportantcomponents of a healthylifestyle. Itshouldbenoted that popular, newforms of attracting the population to the delivery of the norms of the GTO complex, suchasfamilycompetitionsGTO and "GTOFestivals", the purpose of whichis to promotetraditionalfamilyvalues, healthylifestyles, creatingconditions that motivate physical culture and sports.

The conductedsociologicalstudiesconfirm that onlygood physical shape and constant physical trainingallow to performtypes of tests (tests) of the GTO complex [3, 6]. Greatimportance in solvingthisaspect of the activityisassigned to the motivation of the participants of the GTO complex. Itshouldbenoted that motivationis a keycomponent in physical training and preparationfor the requirements of the GTO complex [2, 4, 5].

In ourwork, the notion of the implementation of the GTOcoversallactivitiesassociated with ASC RLD: registration, information and consultation (reuterstv), preparationfordelivery of standardsetc. the Studywasconducted in schools of Khokholskymunicipaldistrict, MBOU "SOSH Kostenski", MKOU "SOSH Orel" and MKOU "Gremyachenskiy OOSH" for the purpose of determining the adolescents ' attitude to the implementation of the GTO to identify the mostrelevantmotivations to participate in the delivery of publicrequirements of the complex GTOamong 132 adolescents, pupils of 6-9 classes.

RESEARCH RESULTS

The questionnaireincludedquestions that determine the attitude and motivation to meet the staterequirements of the GTO complex. Basedon the analysis of questionnaires, the followingresultswereidentified.

During the survey of students revealed that 67.4% of respondents have a positiveattitude to the revival of the complex "GTO",12,3% said that ratherpositive attitude,15,2% arestillundecided, 4.5% founditdifficult to answer.

To the question: "You registered on the official the official site of ASC RLD and howoftenyou go to a personal account?", the followingdatawereobtained: 97% of students are registered, 3% of students are not registered on the site, however, despite the highpercentage of registered participants, thereis a lowfrequency of visits to the personal account: 40.3% of students do not go to the site and to the personal account atall, 9.8% visit the site 1-2 times a year, 19.6% visit aboutonceevery 2-3 months and only 30.3% visit the personal account of the participantmorethan 3-4 times a month. Graphically, the distribution of the dataisshown in Figure 1 – the Number of registered students and Figure 2 – the Frequency of visits to the GTO website and personal account.

Figure №1
Number of registered students.

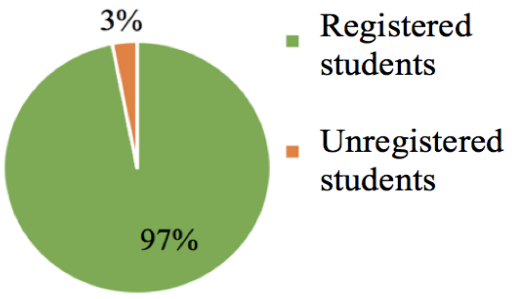

Figure 1

Figure №2
Frequency of visits to the GTO website and personal account

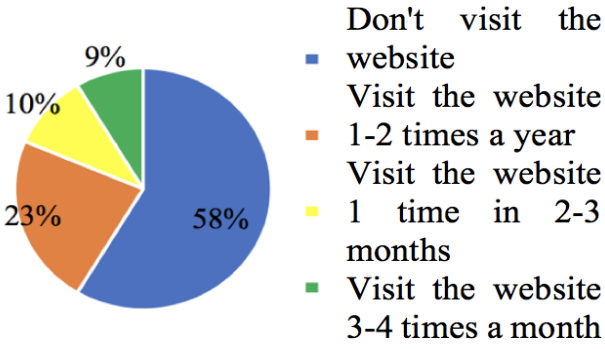

Figure 2

To the question: "didYou Pass the standards of the GTO complex and doyou have a distinction?"weobtained the followingresults: 74% of respondents passed the test, the GTO and 26% of students did not pass, at that time, as a markof distinction to have 34% of allrespondents and 66% of respondentsdo not have the badge of the GTO. Graphically, the distribution of the dataisshown in Figure №3 – the Number of thosewho passed the tests of the GTO complex and Figure №4 – the Number of students with a distinction.

Figure №3
The number of GTO complex that passed the tests.

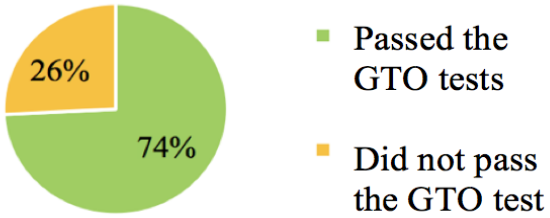

Figure 3

Figure №4
Number of students with a badge «GTO»

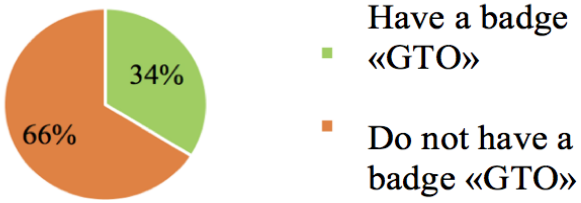

Figure 4

To the question: "Areyouaware of the history of the development of the GTO in ourcountry?"the followingresultswereobtained: 78% of schoolchildrennoted that theyknow the history of the GTO complex, while 22 % of respondentsindicated that theydo not know.

To the question:"Areyouaware of the agelevel of GTOfor students?"the followinganswerswerereceived: 74% of respondentssaid that theyknow the agecategoriesforschoolchildren, 16% of respondentsnoted that theyknow the age of onlytheirlevel and 10% of students noted that theydo not know.

To the question: "Do youknow the standards of GTOforschoolchildren?" The followinganswerswerereceived: 54% – Yes, I knowformydegree and 46% – no.

To the question: "Whydidyou pass the tests of the complex?"the followinganswerswerereceived: "Becauseeveryone passed" – 25% of respondents. "I wanted to trymyhand" – 46%. "Need a gold badge foradmission" – 29%.

To the question: "Whatformatwouldyoulike to pass the tests of the complex?"the followinganswerswerereceived: "At the lesson, in the form of passing tests" – 15% of respondents. "In the form of familycompetitions, togetherwith parents" – 36%. "In the form of sportingevents and festivalsinvolvingfamousathletes" – 44%. "In testingcenters" – 5%.

Conclusion

During the survey of students in schools, itwasfound that the majority of adolescents have a positiveattitude to the revival of the GTO complex. According to the dataobtained, wecannote a highpercentage of registered participants (97%), along with lowattendance of the site and the personal account of the participant (30.3%). As a result of the study, wecannote a lowpercentage of participantswhosuccessfully passed the tests of the complex. As a result of the survey, itwasdetermined that the motivesfor the delivery of the GTO complex areconnected, first of all, with the interest of checkingtheirforces. Itisalsopossible to note the highlevel of awareness of stu-

dents about the history of the TRP complex, agelevels of students, standardsfordelivery, whichiscertainlyanindicator of the workcarriedout in the schoolon the implementation of GTOteachingstaff. The studyrevealed that the implementation of the standards of the GTO complex ismosteffective in the form of festivals, familycompetitions, sportsevents, with the involvement of publicpeople and athletes.

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RESEARCH METHODS READINESS TO THE CHOICE OF SPORT ACTIVITY IN ADOLESCENTS

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Abstract. The main attention in this article was paid to the ascertaining experiment. The study was conducted to identify the level and structure of temperament of younger teenagers engaged in Taekwondo. Also, within the framework of the study, the assessment was made of the age and individual characteristics of young athletes. According to this criterion, the selection of groups for the research experiment was carried out; methodical work with trainers was carried out through seminars and trainings. Experimental research was conducted in natural conditions with the help of psychological and pedagogical testing, observation, modeling, analysis. The study also used the method of logical and mathematical analysis.

Key words: experiment, teenagers, sportsman, technique, research, questionnaire, reliability, survey.

Introduction

Adolescence is the most important and difficult period in people's life. There is an body's alteration during this age: sexual, age and psychological characteristics of the personality are formed. This age is called awkward and it is difficult growing up and body's alteration period for a child. During this period every organs are changed, so there are changes in the need-motivational and emotional spheres of the personality. New requirements in independence, communication, self-affirmation are formed.

To study the anatomical, physiological, psychological and sensitive characteristics of adolescents that influence the choice of one or another type of sports activity, it is necessary to do researches.

Methods and organization of research.

The author suggests using the following research methods:

1. Theoretical analysis and synthesis of literary sources and scientific and methodological materials on the studied problem.
2. Pedagogical observation.
3. Survey.
4. Testing the physical fitness of adolescent.
5. Pedagogical experiment.
6. Methods of mathematical statistics.

After analyzing the scientific and theoretical literature, we acquainted with the modern ideas of Russian and foreign authors working in the field of physical education, age-specific physiology, pre-school pedagogy and psychology, valeology and hygiene. In particular, we had a closer look at the adolescents' body build, the principle of body height, the development of physical qualities.

We also identified the main directions of modern researches and discovered poorly studied aspects in this scientific and pedagogical field.

On the basis of the theoretical research, we could prove the current hypothesis, set the goal and objectives of the research, to draw general conclusions.

The goal of pedagogical observation was to determine the most informative and convenient tests for characterizing the development of physical qualities and the level of adolescents' readiness for sports. During the observation was carried out the development of children's physical skills. Their weak and strong physical qualities were noted.

According to the results received in the course of this observation the level of adolescent's readiness to choose sports activities was determined. This information was recorded in a diary.

The questionnaires were developed using the principles of researches and observations presented by B.A. Ashmarinova and I.A. Butenko.

In order to determine the influence of factors on the formation of adolescent's readiness to choose sport was used questionnaire No. 1 (Appendix 1).

Also, another questionnaire was suggested for the test group. Questionnaire № 2 (Appendix 2) is for the identification of children's reasons for sports activities. According to the data obtained during the survey, we determined the degree of every reason influencing the choice of sport and interest in it.

Questionnaire No. 3 (Appendix 3) was suggested to complete 2 times - before and after the experiment. As a result of the experiment, 350 questionnaires were completed and processed. At the main stage of the experiment, the initial readiness level for the choice of sport was determined. Further, to assess the effectiveness of the suggested method for the formation of adolescents' readiness to engage in sports activities was used data obtaining from questionnaires.

150 teen-athletes filled in a questionnaire.

Questionnaire No. 3 offered a series of questions with multiple-choice. Each answer has points (from 0 to 5). On the basis of the total score, self-assessment of teen-athletes' moving abilities was determined.

Test consisting of moving tasks was carried out to determine the level of development of children's moving skills. These tasks are standardized and often found in test programs (T.Yu. Krucevich).

In order to assess the development of adolescent's hand strength, a children's wrist dynamometer was used. There were 2 attempts for each hands, the best result was recorded (accuracy 1 kg).

The following exercise to assess physical qualities for boys and girls was different: for boys it is pull up, for girlsit is push-ups.

So, the power abilities of children were assessed.

Strength endurance was determined by using two test exercises: turning up straight legs in prone position for 30 seconds and bent suspension.

Speed-power capability were determined by the length of standing jump and throw the ball with two hands from behind the head. The best of the three attempts was counted.

3 tests were used to determine the coordination abilities of children. The first test is jumping rope. To perform this test was given 3 attempts. The numbers of correct jumps were counted.

The next test is shuttle run 3X10 m. And the third test is catching the ball: an adult throws the ball to the child at the floor from a distance of 2 meters. The child must catch the ball. The throw is made 3 times, 2 of them must be successful. In this case, the result is counted as positive.

The following test methods were used to determine the speed: Jume run. Running (acceleration) begins before the start for 10 meters. The child must pick up the maximum speed to the starting line. The stopwatch turns on at the moment of crossing the start line and turns off at the finish line. It is also estimated 30 meters run from a high start and run in a place with a high lift of the thigh.

Table 1 – Methodical device and its relationship with the objectives of the research

Research objectives	Research methods	Research subjects
1	2	3
1. Identify the essence, content and structure of readiness for children's choice of the type of sports activities	Theoretical analysis and synthesis of scientific and methodical literature. Pedagogical observation	Scientific-methodical, general pedagogical and special literature. Sports activities of adolescents
2. Identify the factors influencing on the readiness to choose the type of sports activities and study the motivation	Questionnaire. Pedagogical observation	Adolescents
3. Developandexperimentallytestamethodofformingreadinessforthechoiceofatypeofsportsactivity	Test. Methods of mathematical statistical analysis. Pedagogical experiment	Adolescents. Adolescents' sportsactivity. The information isfromquestionnaireandtest
4. Give the recommendations to form adolescents' readiness to choose the sports' activity	Methods of mathematical statistical analysis. Pedagogical experiment	Adolescents. The information isfrompedagogical experiment

The endurance is estimated by running at a distance of 300 m and running for 5 minutes (the results are estimated by the number of passed meters).

The following methods were used to determine the dorsal spine mobility: angle body in the upright position on a bench (in cm); dislocate with a "stick" - with straight arms, holding the stick, first transfer them back, then behind the back. The distance between the hands is estimated.

The main place in our research is a pedagogical experiment. This research was focused on formation the readiness of a teen-athlete to make a conscious choice of a sport.

The results of the experiment and their discussions.

Tasks of the experimental research:

- to identify the level of adolescents' readiness to independently choose the type of sports activity;
- to develop a method for the formation of the child's readiness to choose a sport;
-to determine the main criteria for the effectiveness of the suggested method and develop recommendations for its practical application.

The experimental study involved 100 people, divided into 2 groups: control and experimental.

The suggested method was used for the experimental group. In the control group, the process of engaging adolescents for systematic sports was traditionally held and their interests and abilities were not taken into account.The effectiveness of our suggested method was determined by the following criteria:

- the number of children embarking on systematic training in sports sections;
- adequacy of the choice of sport to the child's athletic abilities;
- attendance of sports activities.

Conclusion

The research's material was processed by the methods of mathematical statistics. The mean values (X), standard deviation values (± x) and mean arithmetic average (m) were sequentially calculated during the processing of the obtained quantitative indicators. So it is possible to produce correlation and factor analysis at the next stages, with the calculation of the representativeness error and test of significance. The statistical significance of the differences of the compared average values was estimated using the parametric criterion "Student's criterion" which, at the chosen level of significance, proves or disproves the statistical hypothesis in relation to pairwise related or unrelated samples.

The statistical significance in the compared average values was estimated by the probability table P / t / ≥ / t1 / by distribution (t is the Student criterion). Significance was considered significant at a 5% significance level (P = 0.05), which is considered quite high and reliable in pedagogical and psychological research. Correlation analysis was used, in determining the dependency and compatibility of changes in the studied properties, to determine linear and rank correlation coefficients, where the threshold value level was 0.05 (or 5%), the correlation coefficient and its reliability were detected using Excel 2003 application programs and the application package "Statistica 6.0".

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REGENERATIVE MEDICINE, SPORTS MEDICINE, PHYSIOTHERAPY, BALNEOLOGY AND PHYSIOTHERAPY

UDC 614:371

MONITORING OF THE REPRODUCTIVE ATTITUDES OF STUDENTS OF THE PEDAGOGICAL UNIVERSITY

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Abstract. In the article under consideration the results of two-year monitoring of reproductive attitudes of students of physical culture and life safety faculties of Voronezh state pedagogical university have been studied.

Key words: reproductive behavior, health, sex education, family and child planning, contraception.

The study of reproductive health and behavior of modern youth has been conducted for many years, but still in Russia, as well as in other developed countries, the issue of demography is of special interest [2; 3].

Today's youth has special reproductive attitudes that are dictated to them by life, environment, education, media, etc. [1]. Now the main task of students is to obtain higher education, getting the job, and as it is said "to rise to one's feet", and only then they think about family and children. And this is not bad, because the creation of family and the birth of children are always associated with material costs that fall on the shoulders of young people.

The analysis of reproductive attitudes of young people should be carried out systematically, because it gives the opportunity to make any adjustments, to direct the situation on the right way. Therefore, a few years ago we have already researched the reproductive behavior of students of the faculty of physical culture and life safety of Voronezh state pedagogical university (VSPU) with the subsequent publication of the results in the journal of "Physical Culture and Sport", however, nowadays the study of this issue is of special interest [2].

The purpose of this researchwas to monitor the reproductive attitudes of students of the Faculty of Physical Education and Life Safety during the study at the university.

Materials and methods. The study was conducted in 2 stages: the first was in the spring of 2017, the second one - in the spring of 2019. The 1st year students were participated in the study of 2017 enrolled in the course of "Physical culture. Life safety" and "Physical culture. Additional education" in the amount of 40 people (11 boys and 22 girls), and in the 2019 – the same students but in the less quantity – 28 people (17 boys and 11 girls).

Respondents were offered an adapted questionnaire consisting of 22 questions. The basis for its development was questionnaire taken from the one of T.I.Sadykova (2006, Roskomstat), designed to assess the medical and social portrait of modern youth [1]. The survey was conducted anonymously.

Results and discussion. Comparing the results of a sociological survey among students in the dynamics (2017 and 2019), we obtained the following data: in the answers of 2019 to the question "What is reproductive health?" almost all the respondents (96.4%) interpreted it correctly, whereas in 2017, more than 17% of respondents believed that "this is the absence of sexually transmitted diseases" and "having sex".

In 2017 50% of respondents answered the question "What is sexual health?" like this is the same as reproductive health, and in 2019, 53.6% of respondents believedthat sexual health is the presence of regular sexual life, and boys are more convinced of it (64,7%).

It turned out that most students are engaged in sexual education on their own. Only 25% of students in 2017 and 21.4% in 2019 had the opportunity to discuss this topic with parents and doctors, it was mostly about girls.

The information about the methods of contraception is obtained by the majority of respondents from the media (this number was 42.5% in the first year, and 50% - in the second). The most popular and reliable method is still barrier, especially in young men. It is good that despite the small number of grown-up students, 21.4% of them talk to the doctors about these questions.

The average age of sexual life for the majority of respondents was 18 years old (52.5%) in 2017, and only 35.7% indicated this age in 2019, which may be explained by more honest answers in the questionnaire of the last year. About the age of the beginning of sexual life in 12-15 years old, the figures have not been significantly changed (in 2017 they were 12.5%, in 2019– 17.8%).

During pregnancy the tactics of student's behavior have changed over the years: in the first year only 47.5% of respondents would have kept the pregnancy, 37.5% would have discussed this situation, and 15% would have interrupted it (or insisted on it). In 2019, none of the respondents considered abortion: 78.6% said that they were only for the preservation of pregnancy, 17.8% would like to discuss this question with the partner. All of it allows us to say that the grown-up students have increased their responsibility in these situations, they are not so careless. At the same time the men are for the continuation of the pregnancy (76.4 per cent),

despite the fact that they have planned the birth of the child at the age of 25-26 years old (64.3%) and even after 30 years old (29.4%). It should be noted that 50% of respondents were born by their mothers after 23 years old and most of them (85.7%) were brought up in a full family.

The majority of respondents plan the creating of a family after graduation, and this trend was observed both in the first year students (90%) and the third (92.8%). At the same time, we'd like to note that in the responses of 2019, 17.8% of respondents would like to create a family after 30 years old, when the material basis for its existence will be achieved.

We received the interesting information to the question "How manychildren would you like to have?" If 40% of students wanted one child in 2017, 47.5% - 2, and 12.5% 3 and more, then in 2019, the statistics changed dramatically: 17.8% of respondents would like to have one child, 35.7% – two children and 42.8% respondents would like to have at least 3 children. This trend can be explained by the fact that 39.3% of respondents were brought up in a family with 2 children, and 32.2% in large families; most of them live in families with satisfactory (71.4%) and high (25%) material wealth. In addition, it is impossible not to take into account the fact that in Russia there is a program of "Maternal capital", which stimulates the birth of two or more children.

The attitude to civil marriage has changed over 3 years: in 2017, 27.5% of respondents approved it, 32.5% denied it, and 40% did not think about this question at all; in 2019, 28.6% of students consider this option of living together, 14.3% – do not see any prospects in these relations, and 57.2% of respondents do not think about this question at all.

According to students' opinion the role of the University in sex education and behavior is insufficient, and this problem should be taken into account by the tutors and lectures of the Department teaching the subjects such as "Fundamentals of medical knowledge and healthy lifestyles", as well as "Human Physiology".

Conclusion. Monitoring of the reproductive attitudes of students of the Faculty of Physical Education and Life Safety showed that during the years of 2017-2019 most of the students wereinvolved in sex education independently. The role of parents and the university in these questions is not great; the information about contraceptive methods is provided by the respondents from the mass media. The most popular and reliable method, especially among young men, remains the barrier method; talking to experts with the question of contraception during these years remains irrelevant; when pregnancy occurs, the majority of matured students are in favor of preserving it, especially young men; the most respondents plan the family creating and having a child after 25-26 years old, and some of them after 30 years old, when the material basis for their existence will be achieved; when growing up, students are not afraid to plan 2, 3 or more children, understanding the responsibility and at the same time having the experience of living in large families; students have an ambiguous attitude to the issues of civil marriage, but, nevertheless, without denying this form of living together.

Thus, all of the mentioned above allows us to talk about the necessity to increase the reproductive literacy of young people, starting at school and continuing within the walls of higher educational institutions, because the demographic situation of our country depends on it.

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ASPECTS OF THE DEVELOPMENT OF METHODS OF PHYSICAL REHABILITATION OF SCHOOLCHILDREN WITH DISEASES OF THE CARDIOVASCULAR SYSTEM

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Abstract. The article presents a theoretical justification for the development of methods of physical rehabilitation of first-graders with diseases of the cardiovascular system. The structure, and content of the technique are revealed and the impact of individualized motor activity on the child's body is shown.

Key words: schoolchildren, physical activity, cardiovascular diseases.

Introduction

In the modern period, prevention of diseases of the cardiovascular system and the rehabilitation of people who have them remains one of the urgent problems of health care and education, since the prevalence of these diseases among the adult population of the Russian Federation has become quite widespread.

Currently, congenital heart disease is one of the main risk factors for the development of complications among children and young people. Achievements of modern experimental cardiology and rehabilitation systems allow us to speak about the complexity of the pathogenesis of cardiovascular diseases, which determines the need to use not only drug therapy, but also various therapeutic physical factors.

The vast arsenal of methods for the physical treatment of various diseases of the cardiovascular system is constantly expanding, which gives scientists the task of investigating the comparative effectiveness of both previously developed and new technologies for treating this group of diseases.

At the age of seven, children usually begin to attend school and, accordingly, spend a long time in a static position at the desk. This significantly increases the load not only on the musculoskeletal system, but also the cardiorespiratory and nervous systems of the child's body. At the same time, it is proved that nothing affects the child's health more negatively than hypodynamia. Dosed exercise increases immunity, strengthens posture, improves blood circulation and activates mental activity [1]. Exercises help the first-graders to form a correct posture, increase their body endurance, and also help to improve the coordination of movements.

Methods and organization of research

In our work, we divided the exercises for first-graders into 2 types: fortifying and corrective. A seven-year-old child with a pathology of the cardiovascular system cannot reproduce uniform exercise for a long time.

Therefore, we recommend to alternate the types of permitted motor actions in the process of occupation, change gymnastic equipment and use different starting positions. You can use the complexes with a gymnastic stick, a ball or near the gymnastic wall.

Starting positions in the exercises are applied "standing", "sitting on the floor" or "sitting on a chair", "lying on the mat". In the process of training, we recommend using various game and competitive elements, for example, "who is the fastest and the highest will get an apple?" Or "who will hold the ball on the head longer?".

It is worth noting that before the start of classes it is imperative to assess the capabilities of the child's body and to obtain permission from doctors to influence the specific motor load on it.

In this case, any set of physical exercises should consist of the following parts: a warm-up, the main and the final part. At the same time, the duration of extracurricular physical education classes with first-graders who have violations of the cardiovascular system should not exceed 30 minutes [2].

The objectives of the complex of physical exercises for heart diseases are:

- possible compensation for existing circulatory failure;
- improving the adaptive abilities of the heart and the peripheral blood circulation apparatus to the changing needs of the child's body;
- Strengthening the nonspecific resistance of the child's body to adverse environmental factors;
- General expansion of the functional capabilities of the child's body;
- creating an enabling environment for improving the physical and mental performance of the child.

Popov A.I. (2017) recommends the use of general developmental and applied exercises for solving these problems. We believe that, in addition to these exercises, special attention should be paid to respiratory. Also important is the selection and individualization of physical activity and its gradual increase, taking into account the duration of classes and the state of the student's body. It is advisable to choose such exercises, in the performance of which all or most of the muscle groups of the child take part in physical work according to the principle of the scattered load (alternately on different muscle groups).

Our experiment was based on a survey of 60 first-graders in Voronezh, who have diseases of the cardiovascular system (30 people are an experimental group and 30 are controls).

In the process of training, we followed the following rules:

1) a gradual increase in the duration and intensity of employment;

2) a child's painless exercise of the proposed exercise;

3) conducting classes two hours after the last meal;

4) maintaining a temperature of comfort in the room for occupancy equal to 22 єC;

5) mandatory use in the process of breathing exercises (at least 20% of the total duration).

Contraindications to conducting classes with a particular child included: the presence of high temperature, arrhythmias, and poor health.

For first-graders who have diseases of the cardiovascular system, for the study of small muscle groups, the recommended number of repetitions of one exercise is 10-12 times, and for large ones - 3-5. Specially directed exercises should be designed to activate extracardiac circulatory factors. These include: dynamic and static breathing exercises performed from various starting positions. It is also necessary to apply the so-called diaphragmatic breathing of moderate depth. It consists in the following: at the expense of "once" the child makes a breath, at the expense of "yes - three - four" - exhalation. We recommend using dosed walking at the beginning (starting from the third minute for 2 minutes) and in the middle of the main part of the lesson (from 12 to 14 minutes). Then within 10 minutes we recommend to include outdoor games with moderate physical activity in the afterhour physical education class of a first-grader. In general, the duration of one lesson was 30 minutes, and they were held 3 times a week on those days when the child did not have physical education classes in the schedule.

Recommending the use of outdoor games, we note that they had a general physiological orientation: improving the functions of the respiratory, cardiovascular, nervous systems and the musculoskeletal system of the child. In games, walking at a different pace, a wide and smooth range of movement and training of the student's vestibular apparatus were used. According Rusanova I.K. (2015), with regular exercises with dosed physical exercises in a schoolchild with a cardiovascular disease, compensation is provided for the existing disorder and a holistic adaptation of the child's body to the effects of physical activity.

Our classes included three stages:

- the first stage - the retractor - lasted 3 months (from September to November): included general developmental, specially directed exercises and outdoor games of insignificant intensity;

- the second stage - developmental - had a duration of 3 months (from December to February): included general developmental, specially directed exercises and outdoor games of low and moderate intensity;

- the third stage - stabilizing - had a duration of 3 months (from March to May): it included general developmental, specially directed exercises and active games of moderate and tonic intensity.

Exercises and mobile games of the first stage of impact on the body of a first-grader who has a cardiovascular system disease were referred to as so-called recovery loads, that is, they had an intensity of about 25-30% of the maximum possible for a healthy child of similar age and required the schoolchild to recover from no more than 6 hours.

Exercises and mobile games of the second and third stages were in the area of the so-called maintenance load, which affected the body of a first grader with a cardiovascular disease approximately 50-60% of the maximum possible for a healthy child of seven or eight years of age and demanded recovery from his body for no more than 12 hours.

Specify the structure of the method of correctional and health-improving activities with children of 7-8 years old who have diseases of the cardiovascular system, depending on the distribution in stages.

At the first stage of training, the technique developed by us included the following exercises and outdoor games.

1-2 minute classes - I.p. - legs shoulder-width apart, arms extended along the body. Raise your arms through the sides up - inhale, then lowering - exhale.

3-4 minutes -

1 exercise - walking around the room on toes, arms above head (1 min.). Follow the posture, breathing is arbitrary.

2 exercise - walking in the hall, not leaning forward, while raising the knees high (30 s).

3 exercise - walking in the hall with deep forward attacks (30 s). Lunges to perform deeper, without jumping, keep your back level.

5-11 minutes:

1 exercise - I.p. - legs together, hands on a belt. Bend your knee, clap your hands under it. Then, the same for the second leg. After 5 repetitions for each leg, complicate the exercise: lift the leg straightened at the knee forward (5 repetitions for each leg).

2 exercise - And .. p. - feet shoulder width, hands clenched fists to shoulders. Hands down from the starting position down, then again to the shoulders (10 repetitions).

3 exercise - I.p. - feet shoulder width, hands on a belt. Take the leg to the side, return to the starting position (5 repetitions for each leg).

4 exercise - I.p. - legs shoulder-width apart, arms extended along the body. Carry out the torso to the sides with the arms sliding along the body while inhaling to inhale, while straightening - exhaling (5 repetitions to each side).

12-13 minutes -

1 exercise - walking around the room on toes, arms above head (1 min.). Follow the posture, breathing is arbitrary.

2 exercise - walking around the room on the heels, hands on the belt (30 s). Follow the posture, breathing is arbitrary.

3 exercise - walking in the hall, not leaning forward, while raising the knees high (30 s).

14-15 minutes -

1 exercise - I.p. - standing near the wall at a distance of one and a half steps facing the wall. Bend forward to the waist, touching the wall with your fingers, carry out the exhalation. While inhaling, straighten up, take your hands back (5 repetitions).

2 exercise - I.p. - legs shoulder-width apart, arms extended along the body. Raise your arms through the sides up - inhale, then lowering - exhale.

16-26 minutes - outdoor games (different depending on the stage of training).

27-28 minutes -

1 exercise "Let's blow on a fluff" - I. p. - legs shoulder-width apart, arms extended along the body. To carry out a long exhale through the half-open mouth, then exhale (the lips are located "tube"). Exhale to perform as long as possible (1 min.).

2 exercise - I.p. - sitting on the floor, hands in the support from behind. Bend the legs at the knees - exhale, then straighten the legs and return to I. p. - inhale (1 min.). Socks to delay, do not bend your elbows.

29-30 minutes - Construction and summarizing the lesson.

We describe the outdoor games that we use for 10 minutes in each session from 16 to 26 minutes, depending on the stage.

1st stage:

Monday - 1 - "Kolobok" (a load of low intensity). First graders sit on the chairs, holding in the hands of

sticks about 20 cm long, to which bright balls are tied by ropes. The schoolboy is at a distance of about 10 m from the ball-ball. The student, winding the rope on a stick, as soon as possible should roll the "bun" to itself. The game lasts 5 minutes.

2 - “Find and keep silent” (load of low intensity). The children turn away from the leader and close their eyes. The facilitator places the item in a visible place. Pupils must walk around the room looking for an item. The one who noticed the hidden object first should not show others that he knows the place where he is. The child sits on the seat, followed by the second one who has found the item, etc. Those students who have not yet noticed the object are helped in this way: children who have already found the hidden object look at it. The subject must be found in the direction of sight. The game lasts 5 minutes.

Wednesday - 1 - “Ear - Nose” (a load of low intensity). The participating schoolchildren are sitting or standing. They need to clap their hands in front of them, then grasp their right ear with their right hand and their nose with their left hand. After that, clapping your hands, do the opposite. Therefore, you need to repeat several times. Then the exercises can be complicated: by slamming, to hold the left ear with the right hand, and the nose with the left hand and vice versa. The game lasts 5 minutes.

2 - "Fist - palm" (a load of low intensity). First graders sit or stand with their hands in front of them. Players need to squeeze the left hand into a fist with their fingers up. In this case, the elongated fingers of the right hand should rest on the fist of the left. After that, it is necessary to squeeze the right hand, and the fingers of the left hand to stretch and rest against the right fist. The movements of the hands of the child must be fast and accurate. The duration of the game is 5 minutes.

Friday - 1 - "Ring on a stick" (load of low intensity). Schoolchildren sit or stand. Previously a cardboard with a diameter of approximately 15 cm and a width of 3-4 cm must be cut out of cardboard or plywood. A rope is tied to the ring in advance, the other end of which is attached to a stick about 30 cm long. Students should catch the ring on the stick. In addition, each player can make five attempts and must count how many times he managed to catch the ring. The game lasts 5 minutes.

2 - "Snake" (load of low intensity). Players need to bypass the “snake” pre-set by the teacher in a row of pins, the distance between which is approximately 40 cm. The student who wins not knocked down any pins wins.

After a workout, you can complicate the game: the student must pass between the pins with his eyes closed or crawl on all fours. The game lasts 5 minutes.

2nd stage:

Monday - "Land, air, water, fire" (load of low and moderate intensity). Players sit on the floor or stand in a circle. When the teacher says “earth”, all students put their hands down, if he says “water”, the players perform hand movements, like during a swim, the children need to raise their arms up on the command “air”, and rotate the word “fire” hands in the wrist and elbow joints. Out of the game one who is mistaken. The game lasts 10 minutes.

Wednesday - “Masters and machines” (moderate intensity load). Of the participants in the game, the teacher assigns one to the "master", and the rest become "machines." During the "work machines" one or two break. The “master” needs to guess which “cars” have broken down. Before starting “working the machines,” the teacher removes the “masters” to the other end of the hall in order to negotiate with the other players what movements they will perform, depicting the correct work of the “machines” and also what actions two students will consider “car breakage” . Then the teacher invites the "master". At the command of the teacher, all the “machines” work correctly (students perform conditional movements). At the command of "the car went bad" the students, with whom they had agreed in advance, change their habitual movements. The “master” needs to guess exactly which “cars” have broken down, and find out what their problems are. The game lasts 10 minutes.

Friday - “Sedentary Football” (moderate intensity load). School children sit on the floor, bending their knees and leading them to the stomach. One line of players is facing the other. The movement of the feet of students need to throw the ball in the direction of sitting in front of a partner. In turn, he stops the ball with his feet or with his hands, after which he rolls it back to his partner. After the game, children need to lie on their backs and rest. The game lasts 10 minutes.

3rd stage:

Monday - 1 - "Carousel" (load of moderate intensity). Players stand in a circle and hold hands. The students are slowly moving in a circle, saying: "Merry-go-rounds, merry-go-rounds ... We got into the car and drove off." At the same time, they squeeze the brushes into a fist (“steering wheel” in their hands) and, with the sound “rrr ...”, begin to slowly run in a circle, turning the “steering wheel” either to the right or to the left. After running for about 1 minute, first-graders join hands and walk in a circle, uttering the same words, and then "get on the train." The practitioners put their hands on their shoulders and, making circular rotations in the shoulder joints, move in a circle, saying “chukh-chukh-chukh ...”. The game lasts 5 minutes.

2 - "Balloon" (load of moderate intensity). Children sit or stand and inflate balloons (if necessary, the teacher can help them). Having inflated, they throw balls up and catch them, and then throw each other. The game lasts 5 minutes.

Wednesday - 1 - “Train with watermelons” (load of toning intensity). The practitioners sit in a circle and pass each other the ball in a circle, then throw the ball to the teacher, which means “we put the watermelons on the train”. After that, students need to make movements with their arms bent at the elbows in the direction back and forth, as when running, saying “chukh, chukh, chukh ...”. After 3 minutes, the train stops - first-graders say "shhhh ..." and the "unloading" of watermelons begins (the same movements as during the "loading"). The game lasts 5 minutes.

2 - “Catch a mosquito” (load of tonic intensity). School children stand in a circle at a distance of approximately 2 m from the center. The teacher is in the middle of the circle, holding a stick about 1 m long with a “mosquito” tied on a rope. He turns the rope with a "mosquito" a little above the heads of the players. When the "mosquito" flies over his head, students jump up, trying to reach it with their hands. The game lasts 5 minutes.

Friday - 1 - "Tram" (load of toning intensity). Players stand next to each other, holding the rope with one hand, on the end of which a bell is tied. The schoolboy, who is the last one, gives the bell - the “tram” starts off. At the command of the teacher, the “tram” either speeds up or slows down. At the signal (bell), it stops. Those of the guys who did not have time to stop in time go to the end of the line. The duration of the game is 5 minutes.

2 - “Do not yawn” (load of toning intensity). A large circle is drawn in the middle of the site, small circles (approximately 40 cm in diameter) are drawn around it in different places, the number of which is one less than the number of players. Players walk inside a large circle and say these words: “You, friend, do not yawn. Take a

lap faster. " Then they rush to take a small circle. A late player is considered a loser, but at the same time he does not drop out of the game, but participates again. The game lasts 5 minutes.

Dosed physical activity is an obligatory component of both primary and secondary prevention of the occurrence of complications of diseases of the cardiovascular system of schoolchildren. Under the influence of individualized physical exercises, the child's body's resistance to physical activity increases, the functional state and contractile function of the myocardium improve, the so-called coronary reserve and cardiac performance increase, the collateral and peripheral blood circulation improves, etc. [3].

It is proved that physical exercise increases the intensity of the flow of all physiological processes in the body. Such an exercise improves the quality of life of a child with a disease of the cardiovascular system and is important in limiting physical activity.

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UDC 796

ADAPTATION TO PHYSICAL TRAINING OF STAFF OF BODIES OF INTERNAL AFFAIRS OF THE RUSSIAN FEDERATION WHEN FORMING PROFESSIONAL AND APPLIED SKILLS

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Abstract. Article is devoted to issues of adaptation to physical training of staff of bodies of internal affairs. The author also proved process of forming and improvement of professional and applied skills at implementation of physical training within which defining requirements imposed to staff of bodies of internal affairs act.

Key words: adaptation, employee, competence, physical training, professional and applied skills, abilities.

Introduction. The conversions and reforms which happened in the social and economic sphere of modern Russian society and also the changes in a criminogenic situation which led to increase in professional requirements to training of staff of bodies of internal affairs caused new trends in their physical training [4] within which the special importance was gained by process of adaptation and forming and improvement of professional and applied skills.

Purpose. Adaptation to physical training promotes training activity of highly qualified personnel for law-enforcement bodies and in parallel solves a problem of ensuring readiness for successful execution of operational and office and office and fighting tasks of protection of law and order [3].

Justification. Process of adaptation to physical training promotes implementation educational, educational and developing functions. The specified functions within the specialized system of training providing profiling of occupations within operational, office and professional activity of staff of bodies of internal affairs materialize. On educational and training classes in physical training professional and applied motive skills form and improved [5].

Forming and development of the healthy physically developed frames owning a necessary stock of special theoretical knowledge and office and applied abilities acts as a main objective of adaptation to physical training of staff of bodies of internal affairs. Also in the course of physical, psychological, moral, and strong-willed adaptation, successful execution of professional tasks is provided [2].

At implementation of daily professional activity staff of bodies of internal affairs should protect safety of the personality, public order and public safety and implement measures for suppression of illegal acts, and in certain cases using physical force, special means and firearms [1]. In addition, here without the corresponding professional and applied physical training, without appropriate adaptation to it formation of the professional meeting the specified conditions and the requirements is at a loss. At the same time, with a big regret, we will note that despite the high level of preparation, a certain percent of employees law and order during service sustains serious injuries, and at times and perish at execution of official duties. In view of specified forming and improvement of professional and applied skills within physical training in all cases is crucial [4].

Professional and applied skills include the broad range of physical actions and are a pacing factor of training and adaptation to physical training.

The range of the professional and applied skills necessary for operational and service activity implementation is quite wide because here everything is important: ability to run, float, climb, fight, to box, etc. So we suggest to construct the organization of process of adaptation to physical training when forming professional and applied skills in a look physical the education oriented to training of employees for office professional activity [1,2]. And as result of physical training in the subsequent the physical fitness which is characterized by the high level of development of the leading qualities for implementation of professional activity and the level of mastering professional and applied skills will act.

Speaking about the main forms of adaptation to physical training, we want to select process of the physical development directed to forming of readiness of employees for successful execution of office and professional tasks.

Findings. The process of the formation of professional-applied skills enters into a direct relationship with physical self-improvement, the focus of which is the development of physical qualities and practical skills to perform basic technical elements in order to improve the motor skills of internal affairs officers [3]. In view of the above, we note that adaptation to physical training should be based on the following fundamental principles: accessibility, gradualness, consistency. At the same time, ideological, intellectual and bodily components in the structure of the system-activity approach [5] should act as the backbone elements of building the process of adaptation [5] and they will be realized in terms of availability, consistency and gradualness, which ultimately will have a positive effect on the level of information digestibility.

Thus, the development and development of professional-applied skills among employees of internal affairs bodies occurs through proper adaptation to physical training in the process of carrying out operational and service and service-combat activities, and in the future, professionally important physical and mental abilities, as well as applied skills and abilities.

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UDC 37

PHYSICAL EDUCATION AND SPORT: INNOVATIVE DIRECTIONS AND CONSTRUCTIVE APPROACH

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On April the 16th and 17th at the Belgorod state technological university named after. V. G. Shukhov was held the XV International scientific conference "Physical education and sport in higher education institutions", dedicated to the 65th anniversary of the university.

The department of physical education and sport, by tradition, is held annually scientific conference where scientists, teachers and trainers share of the results of scientific research, exchange experience of work with young people, discuss the issues of introducing students to systematic physical training and sports, examining the efficiency of application of modern technologies in the educational process and training activities.

The conference was attended by scientists from universities of Moscow, Voronezh, Kharkov, Belgorod and Belgorod region. This event was attended by honored masters of sports of Russia, masters of sports of international class, masters of sports, honored coaches, honored workers of physical culture of the Russian Federation, representatives of sports schools, educational institutions.

By the beginning of the conference a collection of articles in two parts of 487 pages had been published. The collection presents 93 works of scientists from Russia, Belarus, Uzbekistan, Azerbaijan, Serbia and Ukraine. The editorial Board of the collection includes well-known experts in the field of physical culture and sports of Russia and Ukraine (A. V. Karasev, V. A. Nikishkin, S. S. Ermakov).

The collection presents articles on topical issues of physical education and sports, physical rehabilitation, recreation and medical and biological support of physical culture and sports. The technology of forming, strengthening and saving of students' health, as well as promising directions of improving the training process and enhance the skills of student-athletes.

The main purpose of the conference is to find and implement innovative approaches in sports activities. Opening the plenary session, head of the department of physical education and sports of BSTU. V. G. Shukhov professor S. I. Kramskoy reminded that the current conference is the fifteenth in a row.

On behalf of the rector to the participants of the conference addressed the Vice-rector for cultural, educational and social work of the university support I.P Avilova. She noted that at the present stage in the educational system increases the role of the educational process. In particular, the discussion in the annual format of the problems of forming a healthy lifestyle of students by means of physical culture and sports is focused primarily on the education of the individual, which naturally combines moral purity and physical perfection. The introduction of students to sports during their studies at the university helps young people to learn how to spend their free time wisely, how to build life priorities.

The Honorary citizen of Belgorod, candidate of sociological sciences G. G. Golikov addressed the participants of the conference with a welcoming speech. In his speech, he mentioned that modern socio-political changes in the Russian Federation impose increased requirements for the level of physical fitness and performance of citizens. In this regard, the role of physical culture and sports in the system of social protection of the population, directed to the protection and promotion of health, is increasing. In BSTU. V.G Shukhov at the department of physical education and sports carried out significant work with different groups of the population of Belgorod and Belgorod region. The purpose of this activity is to involve the maximum number of people in sports activities and to strengthen their health. For the organization and carrying out sports events with the population, creation of conditions for independent occupations of the improving orientation the sports base of BSTU V. G. Shukhov is involved, in fact, the doors of the supporting university are always open to fans of a healthy lifestyle.

The head of the department of scientific and research works, candidate of technical sciences, associate professor Naumov A. E. also wished successful work to the participants of the conference. He mentioned that currently the university pays great attention to research activities, development and implementation of projects in various areas, including in the field of health.

The participants of the conference were shown a video "BSTU. V. G. Shukhov – university of healthy lifestyle", which shows that modern approaches to the formation of values for a healthy lifestyle in future professionals are to build the educational process in the university, the organization of leisure of students through the paradigm of health savings.

The idea, the project and the format of the annual international scientific conferences on problems of physical education and sports at universities belongs to doctor of pedagogical sciences, professor Ermakov S. S., candidate of medical sciences V. P. Zaitsev, candidate of sociological sciences, professor S. I. Kramskoy

The scientific part of the plenary session was opened by the report of S. S. Ermakov – doctor of pedagogical sciences, professor of Kharkiv national pedagogical uni-

versity. G. S. Skovoroda "References as an indicator of the quality of the scientific article." Sergey Sidorovich is the editor-in-chief of the following journals: "Physical education of students", "Pedagogical, psychological, medical and biological problems of physical training and sports", indexed in the Web of Science database. The speaker underlined the importance of proper design of the bibliographic list for citing the work in international databases. The expediency of using Zotero and EndNote programs, which allows to collect citations with the indication of sources, to assemble the necessary information on the list of references, to create personal bibliographies on the subject of interest, is noted.

Among the regular participants of the conference – doctor of pedagogical sciences, professor of the Military university of the Russian defense A. V. Karasev (Moscow). In his report, he presented the results of a comparative study of the achievements of the world and national elites in the athletics sprint based on the IAAF archival materials and his own experimental data. A detailed analysis of the causes of differences in the results of competitive activity of highly qualified sprinters was given. The speaker noted that currently only on the basis of any one group of homogeneous indicators (ergometric, morphological, physiological, bioenergetic, psychophysiological, molecular genetic) it is not possible to determine with acceptable reliability the predisposition of young athletes to improve in sprint athletics as in other sports. To improve the reliability of sports selection requires a set of heterogeneous indicators and the development of age assessment scales.

A substantive report on the main directions of development of neuropathologic in the system of modern education was the doctor of pedagogical sciences, professor, Belgorod state national research university, Kondakov V. L. The purpose of neuropathologic in practice optimally and creatively solve pedagogical problems, using the knowledge of the individual characteristics of brain organization of higher mental functions. The speaker underlined that the learning process will be most effective when teachers have a clear idea of how the brain works, how it remembers, processes, records, stores and remembers information. In addition, teachers should be aware that the tasks that students perform, words and emotions significantly affect the development of the brain and the manner of their training.

Candidate of pedagogical sciences, associate professor of the BSTU named after. V.G. Shukhova E.A. Bondar toldabout the peculiarities of endurance education among students of a special educational department of a technical university. The analysis of the results of the annual monitoring of physical fitness of students presented, which allows work that is more effective on its correction.

Candidate of medical sciences, associate professor of Voronezh state institute of physical culture V. K. Volkov presented the expected benefits of constructive physical culture. The report describes the results of the review of future trainers with the design of physical culture, which aims to create a useful to society healthy creator. Familiarity with constructive physical culture contributes to the personal growth of training specialists, provides information for self-development, additional professional knowledge, increases readiness for certain activities. The conclusion about expediency of inclusion of the basic provisions of constructive physical culture in education is made.

Associate professor of Voronezh state pedagogical university O. A. Grigoriev in his speech considered the organization and content of the research work of masters in the profile "Education in the field of physical culture and sports". Dean of FFC and BJ, candidate of pedagogical sciences, associate professor Bugakov A. I, who is the co-author of the presented report, took an active part in the conference.

Features of Olympic education in the light of modern realities were presented in the report of V. I. Kozlov, candidate of pedagogical sciences, professor of the department of physical education and sports of the Voronezh state technical University.

E. A. Pilipenko, psychologist of the Center of psychological support of students of Belgorod GAU. V. Ya. Gorina in her report considered the socio-psychological importance of physical culture and sports in the life of students in the training of agricultural University.

Features of the method of teaching elements of shooting techniques presented in the report of the candidate of pedagogical sciences, associate professor of BSTU V. G. Shukhov A. S. Krivtsov.

The candidate of pedagogical sciences, associate professor of BSTU V. G. ShukhovA. S. Grachevmade a report "On the feasibility of creating an all-Russian website of sports ranking of universities".

Rudyuk L. V., senior lecturer of the National research Moscow state construction university in her report presented information on new technological developments, special equipment during classes in the swimming pool.

Best practices for the organization of recreational diving and its impact on the state of mental sphere of children with down syndrome shared the magistrate, Belgorod state national research university N. Noroshkina.

During the round table the participants of the conference discussed the issues of formation of motivation of students to engage in physical culture, considered the problems of familiarizing schoolchildren and students with limited opportunities, discussed the prospects of construction and reconstruction of sports facilities. Associate professor of the Voronezh state institute of physical culture, candidate of medical sciences V. K. Volkov held a series of lectures for students of BSTU. V. G. Shukhov on the basics of constructive physical culture.

For the participants of the conference were organized tours atBSTU V. G. Shukhov,familiarization with the sports complex of the university, a visit to the museum.

The participants of the conference expressed the opinion that it is expedient to improve the physical culture and sports activities in the following areas:

- attraction of the maximum number of students to preparation and delivery of norms of the all-Russian sports complex " Ready to work and defend»;
- familiarization of students with the basic provisions of constructive physical culture to build health technology and optimal life strategy;
- activation and expansion of extracurricular forms of physical culture and sports work with students;
- implementation of targeted measures to improve methodological approaches during training sessions;
- improving the level of professional and applied physical training of students in order to adapt to the realities of the market economy, making high demands on the level of performance and human health;
- strengthening the importance of the educational process during physical culture and sports;
-construction and reconstruction of sports facilities for physical culture and sports higher education.

In March 2019, a wonderful Person, a sensitive and attentive Teacher, a perspicacious Scientist in the field of physical culture and sports, a prominent Russian leader in the field of education and science, Professor Mikhail Yakovlevich Vilensky, passed away in the 91st year!

Being a graduate gtsolifk them. Stalin in 1951, Mikhail Yakovlevich began his career as a coach in the youth Academy of clubs "Iskra", that was a nice and thorny way up from assistant teacher in 1953 to Professor in the Department of physical culture in MGPI im. V. I. Lenin. In 1981 he moved to the Department of pedagogy of higher school, later renamed the Department of pedagogy and psychology of higher school. He defended his thesis in 1970 and his doctorate in 1991. The last years of his life Professor vilenskiy M. Ya. he became a favorite teacher for students of the Moscow state regional University. Labored.

Mikhail Yakovlevich lived an amazing bright multifaceted life: he was an enthusiastic athlete - Winner of Moscow athletics, a talented coach - created a team of athletes at MSPI, who became a 12-time Champion of the competition of the Ministry of Education, a brilliant scientist - leader of the scientific school on the theory of physical culture and sports. Mikhail Yakovlevich carried out not only the "production" of scientific ideas, which are reflected in 11 monographs, 6 textbooks, 14 textbooks, more than 650 scientific articles, but also the "production" of scientists, without which it is impossible to preserve traditions, the transfer of the "relay of knowledge". Under his leadership, 33 doctoral and 95 master's theses were defended.

Mikhail Yakovlevich willingly shared their ideas at international scientific conferences in Bulgaria, Romania, England, Germany, Turkey, Tunisia, France, Switzerland, Austria, China, Italy, Poland, Mexico, Egypt, Slovenia, the CIS republics.

Professor Vilensky M. Y. had a great experience with activism. More than 30 years (1953-86) was Chairman of the scientific Commission of the Ministry of Education of the RSFSR, more than 50 years (from 1963 to 2017) permanent member of the Presidium of the Scientific and methodological Council for physical culture of the Ministry of education of the Russian Federation, more than 10 years Chairman of the expert Committee of the Ministry of Education of the RSFSR (1979-89), was a member of the Commission for the development of science, education and sports medicine of the President of the Russian Federation for physical culture, a member of the problem Council at RAO, etc. He headed a temporary research team about the preparation of the STATE HPE on physical culture of the 1st, 2nd and partly 3rd generation and exemplary educational programs that provide it. Professor M. I. Vilensky is a member of 9 scientific public organizations of the Russian Academy of natural Sciences (RAEN), manpo, International Academy Of Sciences of higher school, Humanitarian Academy of Sciences, etc. Professor Mikhail Yakovlevich Vilensky is a whole epoch in the theory and practice of physical culture and sports.

The amazing creative way of Mikhail Yakovlevich was marked by numerous state awards: medals of K. D. Ushinsky and M. V. Lomonosov, "Veteran of labor", "In memory of the 800th anniversary of Moscow", "100 years to the trade unions of Moscow", Gold Medal of VDNH of the USSR, signs "Honorary worker of higher education", "For merits in the development of physical culture", "excellent student of national education of the RSFSR", "excellent student of education of the USSR", "excellent student of physical culture and sports", "For excellent achievements in the field of higher education", numerous diplomas Of education and Ministry of education and science of the Russian Federation, diplomas of the Council of the Federal Assembly of the Russian Federation and the Olympic Committee of Russia.

Mikhail Yakovlevich loved life in all its manifestations, loved his profession, his family, his numerous students, and they reciprocated him!

The bright memory of Mikhail Yakovlevich Vilensky will forever remain in the hearts of his relatives, numerous students, friends and colleagues!

Для заметок

DEAR AUTHORS!
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