

Reference

1. Belyak Yu. I. (2005) Technology of conducting aerobics classes: methodical guide / Ivano-Frankivsk. Imsta. 34 p.
2. Belyak Yu. (2008) Morphological status of women of mature age // Young sports science of Ukraine: coll. of science works in the field of physics culture and sports. L. Vol. 12. P. 14-18.
3. Dolzhenko L. (2007) Physical fitness and functional characteristics of students with different levels of physical health: autoref. thesis for obtaining sciences. candidate degree sciences in physics education and sports. K., 2007. 21 p.
4. Zinchenko N. (2009) Model-classifier of somatic features of girls of student age // Slobozhansky scientific and sports bulletin. No. 3. P. 192-195.
5. Kashuba V. (1999) Body weight as a biophysical factor of human development // Pedagogy, psychology and medical and biological problems of physical education and sports: coll. of science pr. No. 16 [Electronic resource] / ed. : S.S. Ermakov; Hark. artistic and industrial int. Kh. 52 p.
6. Malimon O. (1999) Differentiated approach in the process of physical education of students: autoref. thesis for obtaining sciences. candidate degree sciences in physics education and sports. Lutsk. 20 p.

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INNOVATIVE SYSTEM OF ACCELERATED SWIMMING TRAINING FOR FEMALE STUDENTS OF HIGHER EDUCATION INSTITUTIONS

The article describes the current approach to the accelerated swimming of the students of the foundations of higher education. The technology of organization of the lighting process was optimized, which brought together the brains for the accelerated realization of the potential abilities of female students in professional development and healthy health.

A complex of effective benefits, methods and methods of training, which resulted in a significant improvement in the students' knowledge, reduction of those specific skills was assigned. It has been shown that the concept of a differentiated accelerated training of female students can be implemented on the principle of one-hour training quietly, that they are engaged in techniques, which include sports methods of swimming from the stop-and-go method. Seeing at its priority elements of the swimming technique allows, for the minds of the deficit of the hour, the introduced training, to form a system of specific stable ruhovyyh nachki, realized in the minds of the water medium.

Physical exercises are widely used in the form of a certain system for the prevention of diseases and the promotion of health. The basis of this system is, first of all, aerobic exercises of a cyclic nature. This includes swimming, which best meets the needs and abilities of those involved in different age groups.

The initial period of study at the university is a socially and physiologically responsible moment in a student's life. New learning conditions, a high total teaching load, a large volume, novelty and complexity of the material that a student must master, place increased demands on the body.

Key words: *swimming, innovative approaches, students, physical education.*

Дакал Н. А. Інноваційна система прискореного навчання плаванню студенток закладів вищої освіти. В статті описано сучасні підходи у прискореному навчанні плаванню студенток закладів вищої освіти. Оптимізовано технологію організації та проведення освітнього процесу, що сприяло створенню умов для прискореної реалізації потенційних можливостей студенток у професійному розвитку та зміцненні здоров'я. Визначено комплекс ефективних засобів, методів та прийомів навчання, використання яких призвело до достовірного збільшення у студенток обсягу знань, умінь та специфічних навичок.

Визначено, що концепція диференційованого прискореного навчання студенток може реалізовуватися на принципі одночасного навчання тих, що займаються технікою, чотирьох спортивних способів плавання із застосуванням цілісно-роздільного методу. Виділення у своїй пріоритетних елементів техніки плавання дозволяє за умов дефіциту часу, відведеного навчання, сформувати якісну систему специфічних стійких рухових навичок, реалізованих в умовах водного середовища.

Ключові слова: *плавання, інноваційні підходи, студентки, фізичне виховання.*

Formulation of the problem. The study is based on the principle of "adaptive physical activity". This category, adopted by the International Association, brings together all types of physical activity and sports that empower all those in need of pedagogical, therapeutic and other (adaptive) support. The proposed direction concerns people of all age groups, both practically healthy and those with reduced life potential. One of the effective means of influence is exercise.

Physical exercises are widely used in the form of a certain system for the prevention of diseases and the promotion of health. The basis of this system is, first of all, aerobic exercises of a cyclic nature. This includes swimming, which best meets the needs and abilities of those involved in different age groups.

The initial period of study at the university is a socially and physiologically responsible moment in a student's life. New learning conditions, a high total teaching load, a large volume, novelty and complexity of the material that a student must master, place increased demands on the body. Therefore, in the process of training sessions at the institute, sufficient prerequisites are

created for the fatigue of students, and the consequence of this should be the inclusion of protective and adaptive reactions. Special attention should be paid to the specifics of training at the institutes of physical culture. For the majority of students, theoretical studies are combined with intense training activities.

Many researchers believe that the reason for the deterioration of the health status and the decrease in the level of physical fitness of students is low physical activity, increased mental stress, violation of the work and rest regime, which together affect the duration of students' adaptation to the conditions of study at the university and in the postgraduate period. A decrease in performance indicators, a decrease in motor activity, due to the redistribution of time costs in favor of theoretical studies, and, as a result, the stress of the body functions of students stimulate the search for a rational combination of educational mental and physical loads in all courses, including correction of programs.

Analysis of literature sources. Expansion of existing ideas about the possibilities of learning and teaching technology, aimed at the rational development of coordination, motor, mental, functional qualities in mastering the course of sports swimming, is the basis for the process of improving pedagogical skills. The methodology of the developed concept is based on the simultaneous teaching of sports methods of swimming in conditions of shortage of training time. Theoretical and methodological substantiation of the health-improving influence of physical exercises of various directions and the aquatic environment on the body of those who go in for swimming is an important component of the pedagogical process [2].

Studies of various problems of improving the level of health and quality of life through swimming are presented in the works of such authors as: Skirene V., Ganchar A. [7], Balamutova N. [1]. At the same time, many authors note a noticeable decline in the health level of student youth. According to the results of the annual medical examination, about 40-45% of students belong to a special educational department [4]. Such a variety of research areas requires a detailed analysis and their distribution according to thematic sections.

Presentation of the main material of the study. The formation of a holistic view of the professional activity of a specialist in the field of physical culture and sports among students is a complex problem. One of the directions of its solution is the integration of major disciplines included in the curriculum, as well as the technology of teaching motor actions. Swimming, as a subject of higher educational institutions of physical culture, belongs to the disciplines of the sports and pedagogical cycle, in the process of studying which the future specialist must receive professional and pedagogical training [2]. The theory and methodology of sports swimming, as an academic discipline, has developed under the influence of the need for professional education of a swimming teacher and coach and performs teaching, developing, educating and health-improving functions. It is included in the curriculum of higher educational institutions of physical culture, faculties of physical culture of pedagogical institutes and universities, higher school of coaches, in the system of advanced training of coaching staff. The basis of the discipline "Swimming", along with other sections, is the technique of the sport, its theoretical and practical study in the specific conditions of the aquatic environment.

The fundamental place in the teacher training system should be given to the technology of learning and teaching, aimed at identifying the totality of coordination, motor, mental, functional, intellectual and other human capabilities for the formation of motor and pedagogical skills.

Teaching students the technique of sports swimming according to existing methods and programs is not effective enough for many reasons. One of them is that the physical condition of the student, his readiness to successfully master the skill of swimming is not always fully taken into account [3].

For the formation of the propulsion system, the student's previous motor experience, various ways of creating an idea of movements are used. Of decisive importance is a well-thought-out modern system of lead-in and special technical exercises in the water, which helps to create a complex of necessary sensations, perceptions and motor ideas about the optimal variant of movements. Consequently, in the end, the methodology of teaching swimming is changing and improving.

Another reason is that modern sports swimming techniques are extremely varied. It is constantly evolving and improving. The formation and improvement of technical skills is associated with the development of the student's functional capabilities, the level of his physical and mental fitness [1].

The constant improvement of the technique of sports swimming methods makes it necessary to change the idea of the effectiveness of the technique of all swimming methods, which entails the need to improve the teaching methods in strict accordance with the main trends in the development of swimming technique.

The third reason is that in the educational process, time is not always optimally planned for mastering basic swimming skills and elements of sports techniques [2].

Currently, a large number of new exercises are fundamentally different from those that were previously used in teaching swimming. They allow you to master the technique of all four sports methods of swimming in a holistic way. Elements of swimming technique, performed in different combinations, improve the coordination relationships between different muscle groups, which contributes to the rapid acquisition of motor experience necessary for further technical improvement.

Until now, the provisions regarding the method of swimming, from which training should begin, the sequence of studying the elements of technology, remain controversial. The concept of taking into account the somatic and constitutional characteristics of students is not sufficiently substantiated; modern achievements in the biomechanics of building a motor action, didactics, and psychology of students are not fully taken into account. There is no single and clear idea of how sports swimming methods should be studied - simultaneously or sequentially (separately), in what sequence the elements of technology should be studied and which of them should be considered basic [4].

Based on the study of scientific and methodological materials of research by leading experts, our own work experience and the results of a long-term pedagogical experiment, we have developed and experimentally substantiated an innovative system of accelerated swimming training, sports training and rehabilitation of female students of higher educational institutions. This system made it possible to reduce the time of training those involved in the technique of sports swimming methods while

maintaining quality [8].

The research carried out by the author has shown a positive effect of swimming on the physical fitness of students. The author notes the expediency of including swimming lessons in the educational process of physical education [3]. Studies of the state of the articular-ligamentous apparatus of students of the main and special medical groups made it possible to determine important directions for improving health indicators.

The author's method of using recreational swimming is aimed at correcting negative manifestations. To correct violations, several methods of swimming are proposed. Dosing of the load is proposed to be carried out by the length of the floated segment, the intensity, the method of swimming, the number of exhalations into the water between the segments, alternating with exercises on the spot, the duration of the lesson [6].

Thus, there is a need for a radical restructuring of the pedagogical process when working with female students. Research aimed at the development of non-traditional for the university, but quite popular and effective types of physical activity used in the practice of health training of female students is relevant. Including the greatest interest is the gameplay, i.e. system of swimming exercises on land and in water are performed in the form of games, which facilitates their development. It is shown that through the game students enter the world of childhood, and easily master the complex coordination of swimming movements. In connection with the above there is a need to develop and scientifically substantiate the technology based on the use of the game method in the educational process of physical education of students of pedagogical universities. This determines the timeliness and relevance of this work [6].

The methodological basis for the development of innovative technology was a theoretical concept that optimizes the system factors of the studied pedagogical discipline. The parameters of training influences, spatio-temporal characteristics of the athlete's movements were comprehensively studied; rational methods of initial swimming training; improvement of sports equipment and the process of specific training of those involved [4].

The theoretical significance of the work lies in the development and justification of an effective innovative system of accelerated learning to swim, improving sportsmanship and improving the health of contingents involved in different ages, fitness and physical development. The innovativeness of the concept is based on the development and implementation of methods for the simultaneous study of the elements of the technique of all sports methods of swimming, which is especially important in the conditions of a shortage of time allotted in the educational process for this discipline.

Expansion of existing ideas about the possibilities of learning and teaching technology, aimed at the rational development of coordination, motor, mental, functional qualities in mastering the course of sports swimming, is the basis for the process of improving pedagogical skills. The methodology of the developed concept is based on the simultaneous teaching of sports methods of swimming in conditions of shortage of training time. Theoretical and methodological substantiation of the health-improving influence of physical exercises of various directions and the aquatic environment on the body of those who go in for swimming is an important component of the pedagogical process.

An objective assessment of the pedagogical process is determined using a scale of expert assessments of technique and control standards developed during the monitoring of sports swimming methods and the time to overcome competitive distances [3].

The use of purposeful training influences, taking into account the typological morphological and functional characteristics of female students, allows, under the conditions of the educational process, to improve faster in the chosen sports specialization. An integral criterion for assessing physical and sports fitness is the results of the implementation of control standards, which characterize the effectiveness of the innovation system.

The fundamental importance of the scientific process of developing new knowledge is due to the existence of certain contradictions between the high need of society to master the younger generation with vital motor skills and the lack of scientifically proven methods that meet today's standards, the formation of initial swimming skills in conditions of special activity of students; between the practical expediency of the concentrated passage of the program in physical culture and the cumbersome pedagogical costs of the generally accepted methods of primary swimming training.

Conclusions. The concept of differentiated accelerated training of female students can be implemented on the principle of simultaneous training of four sports swimming methods involved in the technique using an integrally separate method. The selection of the priority elements of the swimming technique, in the conditions of a shortage of time allotted for training, makes it possible to form a high-quality system of specific sustainable motor skills implemented in the aquatic environment.

The level of physical development, physical fitness and functional state of female students involved in swimming is a significant factor reflecting the effectiveness and adequacy of educational and training influences. Corrective actions in this pedagogical process lead to an accelerated increase in sports results and improve the health of those involved in sports swimming.

Reference

1. Balamutova N. (2012) Fiziceskoe vospitanie studentov [Physical Education of Students]. Vol.1, pp. 13 – 17.
2. Balamutova N., Sidorenko G. (2011) Fiziceskoe vospitanie studentov [Physical Education of Students]. Vol.3, pp. 8 – 11.
3. Bazyliuk T., Kozina ZH., Beznes E., Koveria V. (2010) Fiziceskoe vospitanie studentov [Physical Education of Students]. Vol.6, pp. 8 – 12.
4. Bublej T. (2018) Methodology of differential education of physicists has the right of the main school scholars with health outcomes: author. dis. ... Cand. ped. Sciences: [special] 13.00.02 "Theory and technique of navchannya (physical culture, bases of health)" / Bublej Tetyana Anatolijivna; Nat. ped. un-t im. M.P.Dragomanova. – Kiev, 19 p.

5. Domina Zh. (2010) Technique of navchannya has the right to coordinate the directing of the music teachers in the process of physical communication: author. dis. Cand. ped. Sciences: 13.00.02 / Zh. G. Domina. – Kiev: NPU Dragomanova. - 22 p.
6. Dubogay O. (1995) Methodology of physical education of students who lead health behind the camp to a special medical group: the head master. / O.D. Dubogay, V.I. Zavatsky, Yu. O. Korop. - Lutsk: Nadstyrnya, - 220 p.
7. Ganchar A., Garkusha S. (2012) Fiziceskoe vospitanie studentov [Physical Education of Students]. vol.3, pp. 24 – 28.
8. Tymoshenko O. (2016) Yak modernizuvati the national system of physical wickedness? Happy Holy Week / O. Tymoshenko, J. Domina // Osvita: all Ukrainian. thunder-polit. tizh. - 2016. - No. 15 (April 13-20). - S. 6; Osvita. - No. 21/22 (25 grass-1 worm). - S. 6.
9. Volkov V.L. (2004) Fundamentals of professional and applied training of student youth: navch. posibnik / V.L. Volkov. - K: Knowledge of Ukraine, 81 p.

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THE INFLUENCE OF PHYSICAL EDUCATION LESSONS ON THE DEVELOPMENT OF APPLIED PHYSICAL QUALITIES IN STUDENTS OF NON-PHYSICAL SPECIALTIES

The article discusses approaches to the development of key physical qualities of students not majoring in physical education. It was revealed that one of the main components of student training in institutions of higher education is the development of applied physical qualities necessary for future work, which contributes to the formation of the necessary physical and mental qualities, motor skills in relation to the profile of the future profession. A student's physical and mental performance have a common physiological basis of support systems that are interconnected. Therefore, a low level of physical fitness can have a negative impact on the effectiveness of assimilation of training programs in the specialty, and in the future - on the possibility of being a capable specialist.

The reform in education places high demands on the physical training of future specialists. From the point of view of the peculiarities of physical activity, it makes sense to consider two directions: direct manipulation or operations on the patient's body and purely intellectual activity related to the clarification of the clinical situation, the choice of diagnostic and treatment tactics. However, in everyday activities it is often difficult to separate manual and intellectual activities.

Therefore, any specialty requires such qualities as the mobility of nervous processes; coordination of movements and muscle efforts; the ability to withstand long-term stress, the body's resistance to adverse environmental influences; emotional stability and will, concentration of attention, self-control, determination, stability.

Keywords: *physical qualities, physical exercises, students, physical education.*

Голубєва В., Мартинов Ю., Назимок В. Вплив занять з фізичного виховання на розвиток прикладних фізичних якостей у студентів нефізкультурних спеціальностей. У статті розглянуто підходи до розвитку ключових фізичних якостей студентів не фізкультурних спеціальностей. Виявлено, що однією з головних складових підготовки студентів у закладах вищої освіти є розвиток прикладних фізичних якостей, необхідних для майбутньої трудової діяльності, яка сприяє формуванню необхідних фізичних і психічних якостей, рухових навиків стосовно профілю майбутньої професії. Фізична і розумова працездатність студента мають спільну фізіологічну основу систем забезпечення, які пов'язані між собою. Тому низький рівень фізичної підготовки може негативно впливати на ефективність засвоєння навчальних програм із спеціальності, а в подальшому – на можливість бути працездатним фахівцем.

Ключові слова: *фізичні якості, фізичні вправи, студенти, фізичне виховання.*

The urgency of the problem. The reform in education places high demands on the physical training of future specialists. From the point of view of the peculiarities of physical activity, it makes sense to consider two directions: direct manipulation or operations on the patient's body and purely intellectual activity related to the clarification of the clinical situation, the choice of diagnostic and treatment tactics. However, in everyday activities it is often difficult to separate manual and intellectual activities [1].

Therefore, any specialty requires such qualities as the mobility of nervous processes; coordination of movements and muscle efforts; the ability to withstand long-term stress, the body's resistance to adverse environmental influences; emotional stability and will, concentration of attention, self-control, determination, stability. Most specialties are constantly exposed to acute and chronic stress conditions associated with professional activity, the most common of which are the development of