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## THE INFLUENCE OF SWIMMING ON THE FORMATION OF PLASTICITY OF MOVEMENTS IN FEMALE STUDENTS OF HIGHER EDUCATION INSTITUTIONS

The article determines the influence of swimming classes on the formation of plasticity of movements in female students of higher education institutions of non-pedagogical specialties.

The concept of plasticity of movements and their components in special literature is considered, as well as their role in the general system of personal values of female students of higher education institutions is determined. It was established that the plasticity of movements is an important component of the general culture of the individual, and its formation is an integral component of the education of an intelligent person and the most attractive motive for swimming lessons. In addition, plasticity of movements is an indicator of performance skill, and its main components are: appearance and manner of holding, plasticity, amplitude of movements, purity of execution, consistency of movements by different parts of the body and harmonious combination of movements. A large part of scientific works is dedicated to the study of the formation of plasticity of movements in swimming lessons, while children of middle school age remain outside the attention of physical rehabilitation specialists. After all, it is known that student age is a period that is accompanied by significant changes in the activity of all physiological systems: energy processes are more intense, the cardiovascular system undergoes significant changes, muscle mass increases, endurance develops, the development of motor coordination ends, and posture changes.

Keywords: female students of higher education institutions, plasticity of movements, physical exercises, swimming.

**Хіміч І., Парахонько В. Вплив плавання на формування пластичності рухів в студенток закладів вищої освіти.** В статті визначено вплив занять з плавання на формування пластичності рухів в студенток закладів вищої освіти непедагогічних спеціальностей.

Розглянуто поняття пластичність рухів та їх складових у спеціальній літературі, а також визначено їх роль у загальній системі цінностей особистості студенток закладів вищої освіти. Встановлено, що пластичність рухів є важливою складовою загальної культури особистості, а її формування - невід'ємним компонентом виховання інтелігентної людини та найбільш привабливим мотивом для заняття з плавання. Крім того, пластичність рухів це показник виконавської майстерності, а її основними компонентами є: зовнішній вигляд і манера триматися, пластичність, амплітуда рухів, чистота виконання, узгодженість рухів різними частинами тіла та гармонійне поєднання рухів.

Ключові слова: студентки закладів вищої освіти, пластичність рухів, фізичні вправи, плавання.

**Formulation of the problem.** Nowadays, there is a growing need to study culture and its multidimensional connections with the surrounding world, taking into account the cultural and historical process. Physical culture, as a phenomenon of general culture, is quite unique. It is a natural bridge that allows you to combine the social and biological aspects of human development, in addition, it is the first and basic type of culture that is formed in a person [1].

Taking into account the diversity of socially and culturally formed parameters of a person's bodily existence, a concept is currently being discussed within the framework of physical culture, which distinguishes the culture of movements, the culture of physique and the culture of physical health. Despite the fact that the relevance of the meaning of movement culture arouses mixed interest among both theorists and practitioners, the concept of movement culture, which would specify the essence of this phenomenon, has not been defined.

The concept of "movement culture" is used quite widely, but unfortunately, they are rarely given a precise, unambiguous meaning. This term can be found in publications, articles, coaches, teachers, choreographers appeal to it, intuitively feeling its essence, and, investing in this concept, information obtained, mainly, as a result of personal experience. The issue of the culture of movements is gaining wider importance in everyday life as well. And boys, and especially girls, are interested in learning to move beautifully, plastically, expressively [5].

It is important to note that in modern scientific and methodical literature, a significant part of research is devoted to correcting children's posture, identifying the nature of disorders, developing complexes of physical exercises that contribute to the prevention of possible and correction of existing disorders, therefore, the practice of physical education is a constant search for new means and methods of solving problems posture correction.

**Analysis of literary sources and publications.** The analysis of literary sources confirms that a number of specialists have studied the problems of forming the plasticity of movements in female students of higher education institutions.

A large part of scientific works is dedicated to the study of the formation of plasticity of movements in swimming lessons, while children of middle school age remain outside the attention of physical rehabilitation specialists. After all, it is known that

student age is a period that is accompanied by significant changes in the activity of all physiological systems: energy processes are more intense, the cardiovascular system undergoes significant changes, muscle mass increases, endurance develops, the development of motor coordination ends, and posture changes.

**Presentation of the main research material.** According to the World Health Organization, the health of the young generation cannot be considered healthy. This can be attributed both to indicators of somatic and psycho-emotional health, and moral development of the individual. Currently, the priority area of activity of pedagogical teams during the educational process should be not just teaching children life skills in modern society, but also the imperative preservation and active formation of the child's health [2].

In the conditions of reforming the education system, the main orientation of which is the focus on the development of the child's personality, there are very significant shortcomings in solving problems and strengthening health.

It has been established that the requirements of modern, information-rich educational programs introduced into the educational process often exceed the functional capabilities of the student body. Currently, the daily study load, taking into account homework, reaches 10-12 hours [2].

Thus, forced long-term restriction of motor activity in children leads, as a rule, to serious violations on the part of the most important physiological systems: cardiovascular and respiratory, musculoskeletal system, as well as a decrease in the body's protective forces.

Therefore, health and development work in institutions of general secondary education is carried out mainly in physical education classes. Modern programs for the physical education of children in secondary schools are not aimed at the formation of mental functions and intellectual abilities of the child and do not use the great opportunities of physical culture for the formation of comprehensive development of students.

As noted by specialists in the organization of the pedagogical process, two critical periods can be distinguished for the functional state of the body of students aged 6-12 [1, 4, 5]:

- 1st period during adaptation to academic duties in the first year;
- 2nd period during the transition to senior years, which coincides with the beginning of pubertal changes in the body and the resulting decrease in the functional capabilities of physiological systems.

Deterioration of the health of most children is manifested in the form of adverse changes in the musculoskeletal system and the deterioration of a number of important psychophysiological parameters, an increase in the number of stressful psychoemotional states and the number of cases of requests for medical help. Special attention needs to be paid to the issue of the formation of movement culture in elementary school girls with postural disorders. After all, adolescence is characterized by the instability of the child's psychological sphere, and taking into account the fact that girls of this age have certain disorders, this negatively affects not only their physical development, but also their psychological one. Therefore, it is important to take into account the individuality of those who practice when forming a culture of movements and selecting physical exercises and building a methodology for correcting defects.

Taking into account the current state of health of students, working with children with postural disorders occupies a special place during the implementation of tasks in physical education lessons. Because they differ in low indicators of the body's resistance, more frequent diseases, longer course of the disease, low level of physical fitness [1].

It is well known that one of the directions of prevention and correction of postural disorders is the development of the content of complexes of preventive and corrective physical exercises, which are used in physical education classes. At the same time, according to a number of authors [5], sets of exercises for the prevention and correction of posture should be performed not only in the conditions of organized school lessons, but also independently by students and, in particular, during homework. That is, preventive and corrective exercises should be included in physical education programs and learned by students in appropriate physical education lessons.

According to V. N. Zavadych, maintaining a high motor density in physical education lessons is important in forming the correct posture among primary school students [4]. The author suggests using a variety of mobile games in the lessons, which include motor actions of different coordination complexity. At the same time, the author believes that improving coordination in children has a positive effect on the formation of the ability to differentiate muscle efforts and, therefore, effectively influence the development of muscle sensitivity, which improves the activity of the processes of regulating the correct position of the body in space.

According to I. R. Bodnar, mobile games for the formation of correct posture should be more focused on consolidating the skill of correct posture than on improving basic movements and improving the psycho-emotional state of those who practice.

Taking into account the fact that a number of normative legal documents and programs on physical culture have been adopted, in particular, programs for students with health disorders, the number of diseases of the musculoskeletal system of children, in particular, postural disorders, is increasing every year.

Therefore, increasing the effectiveness of organizing physical education lessons for students with postural disorders, using a differentiated approach to planning physical education is of particular importance physical loads of students during the formation of a culture of movements, taking into account the peculiarities of growth and development of the body, with the aim of increasing motor activity, strengthening health, and forming the motor experience of teenagers.

**Conclusions:** thus, the analysis of the study indicates that the formation of a culture of movements of schoolgirls with postural disorders in physical education lessons opens up new opportunities in the organization of health education of students and allows, in particular:

Achieving a health-corrective effect is possible when conducting classes taking into account contraindications for performing certain exercises in various sports and devoting the first 20% of the time of each quarter in the physical education lesson (according to the curriculum of the physical education teacher) to general physical and preparatory exercises for the

performance of the main program.

An increase in the total movement load should be planned based on the individual selection of optimal corrective exercises for each child, depending on the type and degree of postural disorders.

The device for examining the state of posture makes it possible to increase the accuracy of measuring the magnitude of postural deformations in children, providing an opportunity to assess the state of posture and flexibility of the spine in 1 minute by a physical education teacher without the involvement of doctors.

It is important to take into account certain contraindications for performing certain types of exercises when compiling complexes for the formation of culture:

- in gymnastics lessons, do not perform acrobatic exercises, somersaults and flexibility exercises that increase the mobility of the spine, as well as exercises on projectiles;
- during mobile and sports games when learning to dribble, alternate dribble with the right and left hand. All exercises with the ball (receiving, passing, serving, throwing) should be performed with only two hands.
- in swimming lessons for children with stooped and kyphotic posture, practice swimming on the back more; with an upright posture do not swim on your back; with a lordotic posture put a swimming object under the stomach.

It is important that swimming, as the most comprehensive and universal means of child development in this age period, should be the main organizational and methodical technique in solving the tasks.

## Reference

- 1. 1. Bubley T. (2018) Methods of differentiated learning of physical exercises of primary school students with deviations in health: author's ref. dis. ... Cand. ped. Sciences: [special] 13.00.02 "Theory and methods of teaching (physical culture, basics of health)". Nat. ped. Univ Dragomanova. Kyiv. 19 p.
  - 2. Bulgakova N. (2001) Swimming: A textbook for universities. J. M.: Physical culture and sports. 400 p.
- 3. Volkov V. (2004) Fundamentals of vocational training of student youth: textbook. manual. *Kyiv: Knowledge of Ukraine.* 81 p.
- 4. Demina J. (2010) Methods of teaching exercises of coordination orientation of future music teachers in the process of physical education: *author's ref. dis. Cand. ped. Science:* 13.00.02. *Kyiv: NPU Dragomanova. -* 22 p.
- 5. Kruchevich T., Andreeva O., Blagiy O., Sadovsky O. (2018) "Problems of forming a recreational culture of student youth in active leisure //" Young Scientist ". № 4.2 (56.2). P. 24-29
  - 6. Lawrence D. (1999) The complete guide to exercise in water // A&C Black London. P. 15–26.
  - 7. Vincente Banachelo (1995). Hidrogimnastica /. Santos-CER 11035-050 da Praia.-30 p.

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## FEATURES OF PHYSICAL EDUCATION CLASSES AND THEIR EFFECTS ON INCREASE OF PHYSICAL WORKABILITY OF FEMALE STUDENTS AND THE COURSE

The article analyzes the influence of physical education classes on the improvement of physical performance of female students of higher education institutions. It has been proven that the inadequacy of the content and volume of physical education in institutions of higher education is not able to fully solve the complex of tasks of physical improvement, spiritual and intellectual development of students of higher education. It was established that the low effectiveness of the implementation of the physical education program in institutions of higher education is caused not only by the lack of time allocated for mandatory physical education classes, but also by the insufficient development of scientifically based methods of building the educational process of physical education. In this regard, the indicated shortcomings in the system of compulsory classes are intended to compensate for self-active and independent forms of physical education organization under the conditions of leisure time, the potential possibilities of which attract the increased attention of modern theoreticians and practitioners. The independent process of physical improvement of female students determines the strengthening of the educational and methodological orientation of the pedagogical process, the assimilation of knowledge by female students that would allow them to rationally carry out physical and sports activities using various means of physical culture, traditional and non-traditional methods of physical education, as well as the full use of free time, increasing educational orientation of physical education specifically in the conditions of leisure time

Keywords: physical capacity, female students, physical education, institutions of higher education.

Мілкіна О., Напалкова Т. Особливості занять з фізичного виховання та їх вплив на підвищення фізичної працездатності студенток і курсу. В статті проаналізовано вплив занять з фізичного виховання на покращення фізичної працездатності студенток закладів вищої освіти. Доведено, що недостатність змісту та обсягу фізичного виховання у закладах вищої освіти не здатне повністю вирішити комплекс завдань фізичного удосконалення, духовного й інтелектуального розвитку здобувачів вищої освіти. Встановлено, що низьку ефективність реалізації програми фізичного виховання у закладах вищої освіти спричиняє не лише недолік часу,