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. 2. 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.
1. Bulgakova N. (2001) Swimming: A textbook for universities. I. M .: Physical culture and sports. - 400 p.
2. Volkov V. (2004) Fundamentals of vocational training of student youth: textbook. manual. - Kyiv: Knowledge of Ukraine. 81 p.
3. 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.
4. 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
5. Lawrence D. (1999) The complete guide to exercise in water // A\&C Black London. P. 15-26.
6. Vincente Banachelo (1995). Hidrogimnastica /. Santos-CER 11035-050 da Praia.-30 p.

## DOI 10.31392/NPU-nc.series15.2022.9(154).02

Milkina 0.<br>Senior Lecturer at the Department of physical training, Olympic and Non-Olympic sports National University "Zaporizhzhia Polytechnic"<br>Napalkova $T$.<br>Senior Lecturer at the Department of physical training, Olympic and Non-Olympic sports<br>National University "Zaporizhzhia Polytechnic"

## 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.

[^0]відведеного на обов’язкові заняття з фізичного виховання, але й недостатня розробка науково-обґрунтованих методів побудови освітнього процесу фізичного виховання. У зв'язку з цим, зазначені недоліки в системі обов'язкових занять покликані компенсувати самодіяльні та самостійні форми організації фізичного виховання за умов дозвілля, потенціальні можливості якого привертають посилену увагу сучасних теоретиків та практиків.

Ключові слова: фізична працездатність, студентки, фізичне виховання, заклади вищої освіти.
Formulation of the problem. The system of physical education of student youth is currently aimed only at solving today's problems - the passing of control and assessment standards, which does not contribute to developing in them a desire for independent improvement, it aims at the education of an obedient performer, oriented to compliance with the requirements of the physical education program. Under such conditions, the physical culture of the individual cannot be formed. For this, it is necessary to change the target settings of the field of physical culture from the concept of health improvement and physical education to the formation of physical culture of the individual within the general culture [2].

The orientation of physical education to the assimilation of strictly regulated program material, the content of which is determined by mandatory applied training and the task of normative credits, excludes the possibility of addressing the personality of female students and the development of individuality.

The specific orientation in the use of means, methods, forms of education and upbringing in the field of physical culture has led to a gap between education and physical culture - female students do not fully realize and do not perceive physical culture as a vital value.

Limited in content and scope, 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 [3].

The solution of this task should be carried out through the education of the physical culture of the individual, which is related to the desire, need and ability of a person to maintain and improve his health with the help of a wide amount of knowledge, which can be obtained if the educational aspect is highlighted in physical education classes. The educational aspect should be understood as students' mastery of scientific knowledge, practical abilities and skills, development of mental-cognitive and creative abilities, as well as worldview and moral-aesthetic culture [1].

The low effectiveness of the physical education program in higher education institutions is caused not only by the lack of time allocated for mandatory 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 selfactive 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.

Analysis of literary sources and research. Conditions of modern compliance with increasingly higher requirements for biological and social capabilities of a person. New opportunities can be created with the help of a balanced, scientifically based system of raising children, protecting and developing their health (Dutchak M., Sitovskyi A.). History shows that it is physical culture and sports, or rather, a holistic system of physical education, that can give people the most important thing health.

The most acute social problem in Ukraine is the deterioration of the health of children and youth (Nosko M. O.). Negative factors that reduce the level of health are improper nutrition, hypokinesia, psycho-emotional overstrain, bad habits.

Despite the fact that indicators of the physical development of student youth indicate positive dynamics, the general state of health of modern youth is deteriorating, which negatively affects their physical and mental capacity. Effective means of improving not only physical, but also emotional health of a person include aqua fitness. Nowadays, there is no doubt about the possibility of a positive effect of physical exercises in water on the state of physical and mental health, improving the activity of the cardiovascular, respiratory, hormonal systems and the development of physical qualities of a person (Wilmore J., Kostill D., Kim N.).

Presentation of the main research material. Physical education in institutions of higher education, regulated by the content and volume of mandatory hours of the curriculum, according to our observations and numerous results of other studies, is not able to fully solve the complex of tasks related to physical fitness, intellectual and spiritual development of students.

The assimilation of physical culture should begin with mastering the system of knowledge that forms the value relationship and ability of female students for physical improvement and self-realization of a healthy lifestyle [4].

Improvement of the educational process should involve a planned transition from mandatory forms to the process of physical self-improvement of students. According to scientists, this way leads to strengthening of the educational and methodological orientation of the pedagogical process, assimilation of physical culture knowledge by students, which allows them to independently and rationally carry out physical culture and sports activities [4].

Meanwhile, the educational orientation of physical education will be justified in the case of a close relationship between the processes of theoretical assimilation of knowledge and their practical use in the self-organization of a healthy lifestyle. In this regard, it becomes obvious that the educational approach should be combined with targeted education of motivation, interest and value attitude to physical culture and the state of personal health of the female student [1].

In the field of physical culture, such qualities and elements of human individuality as self-realization, projective and purposeful self-development, creativity, and spiritual needs, which are the impetus for any activity, are not sufficiently represented. This limits the possibilities of physical culture activities to the development of only the motor sphere, which, in the end, reduces the cultural potential of this field of human practice, does not allow realizing the possibilities of physical culture in the development of intellectual, mental, creative and communicative potentials of a person [2].

Physical capacity is interpreted as a person's ability to perform specific work at the expense of muscle effort, which is
decisive for achieving a specific result of activity. The term "physical capacity" defines a person's potential ability to exert maximum physical effort in dynamic, static or mixed work.

Quantitative determination of physical capacity (FP, or PWS) is recognized as appropriate by the WHO and the International Federation of Sports Medicine. It is used in the following cases:

1) to assess the body's functional reserves and differential diagnosis of certain heart diseases in amateur mass sports and sports of higher achievements;
2) in the selection, planning and forecasting of training loads of athletes;
3) to build an individual movement regime of patients and evaluate the effectiveness of physical rehabilitation;
4) in medical and labor examination.

In these cases, general physical training is most often determined, which differs from special training, which depends on sports specialization. General physical training is particularly closely related to the aerobic capabilities of the body, that is, the productivity of the oxygen transport system.

From the standpoint of the concepts of functional systems, physical performance is the result of the temporary organization and interaction of regulatory and executive mechanisms to achieve a defining goal. The efficiency and coordination of the nervous, humoral and executive mechanisms of the functional system determines the level of a person's physical capacity. The same physiological mechanisms that ensure aerobic performance act as executive links of physical performance. In addition to motivation, the initial ability to work is affected by age, as well as other factors. The ratio of work and rest is important, that is, the duration of work that the body was engaged in at the previous moment, and the duration of the next rest.

Increasing the body's resistance to significant physical exertion has always been one of the most urgent problems of sports theory, physiology and biochemistry of motor activity.

The main factor that causes fatigue is strenuous activity (load). In addition to the absolute unit of load, a number of factors affect the degree of fatigue and reduced physical capacity, among which the following should be noted:

1. static or dynamic nature of the load;
2. load intensity, i.e. its distribution over time;
3. constant and rhythmic nature of the load.

Static physical exertion, other things being equal, leads to the development of greater fatigue than dynamic, and the subjective feeling of fatigue in this case has particularly noticeable manifestations.

The time of onset of the feeling of fatigue and its features depend on the degree of intensity of the load: with an increase in the intensity of the load, fatigue occurs earlier, with a decrease - the time of onset of fatigue does not change (in the latter case, labor productivity decreases significantly, which is disadvantageous). There is a defined optimal load intensity under which fatigue develops the slowest. The development of fatigue is significantly influenced by emotional factors: the time when a person feels tired, its general and special physical development, etc.

In addition to the load unit, there are a number of additional factors that contribute to the development of fatigue. By themselves, they do not lead to a decrease in physical performance, however, coinciding with the action of the main factor, they contribute to the premature and well-defined onset of fatigue. These factors can be divided into four large groups:

- microclimate;
- use of equipment;
- violation of the regime of work and rest;
- emotional factors.

The first group includes the following factors: reduced oxygen content in the air a person breathes, increased carbon dioxide content, high environmental temperature, increased humidity, changes in barometric pressure, etc. Among the factors belonging to the second group, the following should be mentioned: a change in the composition of the air - its pollution by various gases (for example, products of incomplete combustion of fuel), the action of mechanical forces, which leads to vibration, acceleration of the influence of electromagnetic vibrations, noise and ultrasound, changes in lighting , awkward postures, etc. [1].

The third group includes factors related to the violation of the work and rest regime: insufficient time to recover after fatigue, improper nutrition, ill-conceived planning of the work and rest regime. Along with various methods of the educational process, the search for opportunities to use additional factors to increase the effectiveness of classes, especially biologically active substances, is of increasing importance in physical culture. Antioxidants, which are a manifestation of non-specific processes of adaptation to various physical loads, occupy a significant place among the majority of such agents. According to many authors, nutrition is one of the factors affecting physical performance and health. Therefore, nutrition problems should be under the constant control of relevant structures. The dynamics of human working capacity is a scientific basis for the development of a rational mode of work and rest. Physiologists have established that working capacity is a variable associated with changes in the course of physiological and mental functions in the body [1]. High efficiency in any type of activity is ensured only if the work rhythm coincides with the natural periodicity of the daily rhythm of the body's physiological functions. In different periods of time, the human body reacts differently to physical and neuropsychological stress, and a person's working capacity fluctuates during the day. According to the daily cycle, the highest level of working capacity is observed from 8 am to 8 pm . Working capacity decreases in the evening hours. The period from 1 to 4 am is especially unfavorable. The working capacity of female students during the day is characterized by phase development. The following phases are distinguished:

- the phase of increasing working capacity. During this period, there is a restructuring of physiological functions for educational activities.
- the phase of sustained high work capacity is characterized by the fact that relative stability or even a slight decrease in the intensity of physiological functions is established in the student's body. This state coincides with high performance in learning (reduction of erroneous actions). Depending on the degree of difficulty of work, the phase of stable working capacity can
be maintained for two or more hours;
- the phase of the development of fatigue and the related decrease in working capacity lasts from several hours and is characterized by a deterioration of the functional state of the body and indicators of children's educational activities.

According to research by scientists, the need to alternate between work and rest is one of the physiological features of a person.

Physiological and hygienic issues, given their direct connection with work capacity, are an important social problem. Therefore, the fight against fatigue and overstrain should be carried out comprehensively, including organizational, hygienic and psychophysiological measures. An organism with increased working capacity differs from a normal one not only in the amount of functional reserves, but also in the ability to quickly put them into action, ensuring proper coordination between them. The amount of adaptation of any system or the whole organism as a whole cannot be assessed only in a state of rest. For this, functional tests with a change in body position and various types of physical, mental, and pharmacological loads are necessary. The most common are tests with physical loads. The rational distribution of the amount of stress on the body, the increase in the number of heart contractions (HR), the decrease in HR in the final part of the class, according to the theory of its construction, the comparative characteristics of the reactions of the body of trained female students to the same exercises - all this provides grounds for monitoring physical performance.

Conclusions. The system of physical education of student youth is currently aimed only at solving today's problems the passing of control and assessment standards, which does not contribute to developing in them a desire for independent improvement, it aims at the education of an obedient performer, oriented to compliance with the requirements of the physical education program. Physical education in institutions of higher education, regulated by the content and volume of mandatory hours of the curriculum, according to our observations and numerous results of other studies, is not able to fully solve the complex of tasks related to physical fitness, intellectual and spiritual development of students.

The improvement of the educational process should involve a planned transition from mandatory forms to the process of physical self-improvement of students. Meanwhile, the educational orientation of physical education will be justified in the case of a close relationship between the processes of theoretical assimilation of knowledge and their practical use in the selforganization of a healthy lifestyle. In this regard, it becomes obvious that the educational approach should be combined with targeted education of motivation, interest and value attitude to physical culture and the state of personal health of female students.

## Reference

1.Blahiy O. (2009) Organizational and pedagogical conditions for the formation of students' motivation for motor activity in the process of physical education // Theory and methodology of physical education and sports. No. 4. with. 92-95.
2. Gunko P. (2005) Activation of the process of physical education of students using strength classes // Pedagogy, psychology and medical-biol. problem physical education and sports. No. 23. P. 13-16.
3. Kunynets O . (2009) Indicators of physical working capacity of female medical university students // Realization of a healthy lifestyle - modern approaches: monograph / General. ed. M. Lukyanchenko, V. Kurysh, Yu. Migasevicha, A. Podolsky. Drohobych: Shvidko druk. P. 72-76.
4. Nosko M. (2003) Theoretical and methodical foundations of the formation of motor function in young people during physical education and sports: thesis of Dr. Ped. Sciences: 13.00.09. - K. 450 p.


[^0]:    Мілкіна О., Напалкова Т. Особливості занять з фізичного виховання та їх вплив на підвищення фізичної працездатності студенток і курсу. B 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,

