

3 – гіпертонічний	3 особи	2 особи	5 осіб
4 – дистонічний	2 особи	1 особа	3 особи
5 – східчастий			
	Всього 16 осіб	Всього 9 осіб	Всього 25 осіб

Із Таблиці №4 були отримані наступні дані типів реакції, а саме:

1) Нормотонічний тип реакції. Відновлення ЧСС та АТ відбувається за 2-3 хв. – відмічається у 18 осіб (6 юнаків і 4 дівчини).

2) Гіпотонічний тип реакції. У відповідь на 20 присідань відбувається різке почастішання пульсу на тлі незначного підвищення систолічного артеріального тиску. Відновлення пульсу і артеріального тиску сповільнено (через 5хв і більше). Збільшення хвилинного об'єму тільки за рахунок почастішання серцебиття вважається несприятливим для серця варіантом, а тому вимагає додаткового обстеження [2].

Цей тип реакції свідчить про недостатність пристосованості серцево-судинної системи до фізичного навантаження – астенична реакція відмічається у 7 осіб (5 юнаки і 2 дівчини);

3) При гіпертонічному типі відбувається різке підвищення систолічного артеріального тиску (до 180-220 мм рт. ст.), мінімальний тиск при цьому або не змінюється, або також підвищується, ЧСС також збільшується. Всі показники повертаються до норми повільно (5хв і довше). При такому випадку необхідна консультація фахівця для проведення відповідного дослідження для виключення або підтвердження діагнозу гіпертонічної хвороби.

Цей тип реакції частіше всього відзначається при перевтомі, перетренуванні, а також при предгіпертонічних станах – реакція відмічається у 5 осіб (3 юнаки і 2 дівчини);

4) Дистонічна реакція відмічається у 3 осіб (2 юнаки і 1 дівчина).

Варто відзначити, що гіпотонічний, гіпертонічний, дистонічний і східчастий типи реакції вважаються патологічними (несприятливими) типами реакції серцево-судинної системи на фізичне навантаження.

**Висновок.** Згідно даних дослідження з фізичних навантажень проби Літунова у більшості осіб студентської молоді виявлена недостатня фізична підготовка, що підтверджується загальними даними в Україні і світі.

Тому, законодавчі акти, засоби і механізми, які впливають на процеси фізичного здоров'я громадян України потребують радикальних змін для покращення ситуації низького рівня фізичного здоров'я населення.

#### Література

1. Державні санітарні правила і норми влаштування, утримання загальноосвітніх навчальних закладів та організації навчально-виховного процесу ДСанПіН 5.5.2.008-01-2001.
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#### FEATURES OF CONSTRUCTION OF RATIONAL MODES OF MOTOR ACTIVITY OF STUDENT'S YOUTH IN THE CONDITIONS OF DISTANCE LEARNING

*The article reveals the peculiarities of the construction of rational modes of motor activity of student youth in the conditions of distance learning.*

*It is established that the rational organization of physical activity has become especially relevant due to the imbalance between food consumption, exercise and human rest. A special role in this problem is played by the organization of the motor mode of student youth, whose training is associated with low motor activity in terms of distance learning. It has been found that chronic lack of physical activity in the regime of student youth becomes a real threat to their health and normal physical performance. Practice shows that two classes (four hours) per week in the first two courses of the university do not allow to ensure a minimum level of physical activity of students. So it is clear that the need for independent exercise in free time is objectively justified.*

*Research shows that physical activity is an integral part of human behavior should ensure the proper functioning of body systems and health. Taking into account individual norms of motor activity is one of the essential factors in improving the system of physical education of students.*

Therefore, when researching the health of students and involving them in physical culture, special attention was paid to the problem of the relationship between physical activity and other aspects of student lifestyle. These problems became the subject of our analysis at the stage of the observational experiment, which preceded the development of a health training program to improve student health.

**Key words:** motor activity, applicants for higher education, distance learning, physical education.

**Хіміч І. Ю., Парахонько В. М. Особливості побудови раціональних режимів рухової активності студентської молоді в умовах дистанційного навчання.** В статті розкрито особливості побудови раціональних режимів рухової активності студентської молоді в умовах дистанційного навчання.

Встановлено, що раціональна організація рухової активності набула особливої актуальності внаслідок порушення балансу між споживаною їжею, фізичним навантаженням і відпочинком людини. Особливу роль у цій проблемі відіграє організація рухового режиму студентської молоді, навчання яких пов'язано з малою руховою активністю в умовах дистанційного навчання. Виявлено, що хронічний дефіцит рухової активності у режимі студентської молоді стає реальною загрозою її здоров'ю та нормальній фізичній працездатності.

**Ключові слова:** рухова активність, здобувачі вищої освіти, дистанційне навчання, фізичне виховання.

**Formulation of the problem.** The problem of research and evaluation of modes of motor activity is always relevant, because motor activity is one of the main factors determining the health and physical condition of the population (T.Yu. Krutsevich [7], A.S. Kuts and others). At present, the rational organization of physical activity has become especially relevant due to the imbalance between food consumption, exercise and human rest [11]. A special role in this problem is played by the organization of the motor mode of student youth, whose training is associated with low motor activity. Chronic deficiency of motor activity in the regime of student youth becomes a real threat to their health and normal physical performance [1].

**Analysis of literature sources.** A large number of works are devoted to the development and substantiation of motor activity regimes: the issue of measuring and evaluating the mode of motor activity of people in different working and learning conditions is considered, the daily and weekly volume of motor activity in different units is substantiated [6]. There is information in the literature about the relationship between physical activity and the level of physical fitness and efficiency [8]. There are different opinions about the norms of motor activity of people in different working conditions [5].

Individually, each person needs a certain range of levels of physical activity for the normal development and functioning of the body, maintaining health. The minimum level allows to maintain a functional condition of an organism; at the optimum loading the highest level of functional reserves of an organism is reached; maximum limits are separated by excessive loads, which lead to fatigue, a sharp decrease in efficiency [3].

**Presentation of the main research material.** From a number of especially actual problems of research work in the field of physical culture one of the most important - definition of an optimum mode of motor activity for concrete age contingents. It is necessary to identify the volume of rational motor activity in accordance with the laws of normal development and full life, including for adults, to systematize these volumes in specific quantitative indicators (normalized values) and determine their most effective content [9].

According to L. Nifontova, when determining the optimal motor activity, it is advisable to follow the following sequence:

- 1) the search for general patterns that determine the rational norm of motor activity;
- 2) development of recommendations on the organization and methods of conducting various forms of classes (organized and independent, individual and group);
- 3) development of recommendations for the organization and conduct of special forms of classes in the mode of work and free time, depending on the nature of work.

The question of optimal motor modes, their volume and intensity is well studied in relation to the methods of training athletes. However, in the methodology of health-improving forms of physical culture, in the search for the optimal and maximum allowable load intensity for group and individual classes for adults, there are significant problems. The recommendations of various authors on this topic are mostly contradictory and debatable [10].

There is no consensus on the appropriate forms of muscle activity, the nature of muscle load, and their magnitude - the volume and strength of the impact. There are still no uniform quantitative criteria for load dosing.

Research shows that physical activity is an integral part of human behavior should ensure the normal functioning of body systems and health [9]. Taking into account individual norms of motor activity is one of the essential factors in improving the system of physical education of students [6].

Practice shows that two classes (four hours) per week in the first two courses of the university do not allow to ensure a minimum level of physical activity of students. So it is clear that the need for independent exercise in free time is objectively justified [5-7].

It is well known that two thirds of all non-communicable diseases are caused by risk factors: unhealthy habits. Research shows that physical activity is an integral part of human behavior should ensure the proper functioning of body systems and health [9]. These phenomena today are common among student youth primarily because they are associated with a crisis, with living conditions, have deep socio-economic roots (unemployment, stressful situations, abrupt change of value orientations, migration of the population, etc.) [7]. Therefore, when researching the health of students and involving them in physical culture, special attention was paid to the problem of the relationship between physical activity and other aspects of student lifestyle.

According to K. Anson in developed countries during the day the value of "biological" time is about 10 hours, "working" - 9 hours, "free" - 5 hours. Based on the fact that the quantity and quality of motor activity of each person are different, we can determine only the general rational norms of motor mode. These norms should be made taking into account individual features. The

total amount of energy consumption per day should not exceed the mentioned norm [2].

The search for ways to solve this problem goes in several directions: some authors [5] identify and recommend for classes with people of different ages a specific number of hours per week; others [3] - try to express the norms of motor activity in energy expenditure, the third - in conditional points, the number of steps per day, week, month, etc.; fourth - determine the rational volume and modes of motor activity in combination with permissible pauses and breaks in classes [4].

In studies [7,8,9] such concepts as "biologically conditioned need of an organism" and "really existing size" of motor activity, "critical minimum of motor activity", its "hygienic optimum", "socially acceptable" are defined and analyzed. and a "biologically appropriate" dose of motor activity.

Since the time of believes that an adult should spend more than the basic exchange for muscle work on a daily basis. at least 1200-1300 kcal, which ensures the normal functioning of the body, the necessary performance, protects against detraining [3]. The physiological norm of physical activity for a person is considered by many to be energy consumption of  $3.13 \pm 0.5$  kcal / min. It is argued that if physical activity is lower than normal, there is a kind of "deficit" of muscle activity, which must be compensated by the inclusion of specially organized exercise [8]. However, in this case, the functional features of the body, its individual needs for muscle activity, as well as the social conditionality of the amount of motor activity allocated to exercise are not taken into account. In addition, there is the following position: for people with low motor activity, only small loads are required to obtain a positive effect [6].

There is another approach to determining the norms of motor activity, based on taking into account the impact of muscle activity on the functional reserves of the body. There are several levels of stress that lead to increased physical condition, its stabilization, detraining of the body or overexertion [1,3,8].

The health-improving effect is possible even at insignificant volumes of loadings of sportswomen if their rational sizes are used. It is shown that adequate physical activity, which corresponds to the functional capabilities of the body, after 8-10 weeks of training increases both overall physical performance and aerobic productivity by 10-25% [1]. At the same time, systematic long-term exercise optimizes not only the functional reserves of the body, but also its resistance to various environmental factors [2].

It is established that in the process of systematic training in persons with experience in adulthood there is both recovery and improvement of motor skills, but still the functional capacity of adults does not reach the values obtained in childhood and adolescence [7]. This confirms the need to create a system of long-term systematic exercise in various fields.

Approaches to determining the frequency, duration and intensity of classes are also ambiguous.

Many believe that it is most important to determine the relative and absolute intensity of the training load, rather than its duration [8]. However, despite the fact that there is a coincidence of the effectiveness of the proposed physical culture and health programs in terms of physical performance, even with significant differences in the duration of training sessions, disputes continue over the rational value of training loads. We will note that recommendations here differ within 20-85%.

There are also contradictory opinions about the duration of the exercise [1,7,4]. Regarding this indicator, each of the authors gives his proofs of the efficiency of the estimated ratios of volume and power of loads [11].

In terms of the frequency of classes during the week, foreign researchers also lack unity. Some state the training effect in one-time classes of the weekly cycle, while others did not note an increase in functionality at the same frequency of classes, even in the amount of 120 minutes. Domestic authors recommend for groups of general physical training two classes a week for 90 minutes [5].

The largest number of supporters of three classes a week for 20-30 minutes [6].

Provides data on the greatest effectiveness of exercise, conducted 10-12 hours a week.

This ambiguity of opinions in relation to the rational power and volume of the load, the frequency of classes in the weekly cycle is due to many reasons. This is a different physical condition of the subjects, and living conditions, work and rest. Of course, the recommendations on the means and factors of physical culture used (sauna, hardening procedures, etc.), criteria for assessing the effectiveness of classes are also ambiguous. It was found that the severity of the health effect is proportional to the initial functional state of the body and largely depends on the direction of training effects [2].

No less contradictory evidence of the choice of rational means of physical culture in fitness training. Thus, if you need a rational ratio of cyclic and acyclic exercise for people of different ages and levels of physical condition, experts have not come to a common opinion. Most authors recommend up to 90-100% of the total funds to use physical exercises that develop endurance, while a number of studies emphasize the need for other ratios of different exercises, where the development of overall endurance is given 40-50%, and 25 -40% - speed and speed-strength endurance, 20-30% - flexibility and speed [7].

Today's students live in a technological environment. Study of high-tech environment is crucial for them. They will need to function properly in this environment and make the right decisions about the relationship between people, technology and natural environment. In our society, power has been and always will be those people who have developed into such an important skill as obtaining, evaluating and generating information. Parents and society expect educational institutions to prepare students for the world in which they will live.

Different target motivational attitudes and physical culture and sports interests in the use of physical exercise and determine different health programs with the use of either mainly training loads, or recovery, with the use of active recreation (sauna, health center, hygienic measures, etc.).

**Conclusions.** All modes of physical activity are characterized by simplicity, accessibility, attractiveness and individualization of the amount of load in accordance with the capabilities and wishes of those involved. The differences are in the amount of load, the frequency of training, even for people of the same age group when using certain types of exercises (walking, running, swimming, cycling, etc.), which is a consequence of different approaches to the regulation of physical activity.

Optimization of physical activity, apparently, should still follow the line of social justification, aimed at a sustainable health effect, which will allow more rational use of free time for other activities that contribute to the harmonious socio-cultural development of the individual.

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### ФІЗИЧНЕ ВИХОВАННЯ В УМОВАХ ДИСТАНЦІЙНОГО НАВЧАННЯ

Рік тому наше звичне життя зазнало чималих змін. Умови пандемії вимагали нових правил і в робочій сфері. І, хоча сучасні аспекти життя тісно пов'язані з інтернетом та віддаленою працею, окремі галузі (в тому числі і освітянська) потребували перегляду та вдосконалення при переході на дистанційне навчання.

Дисципліна «Фізичне виховання» опинилась у важкій ситуації. Процес тренування та зв'язка «тренер (викладач фізичного виховання, інструктор) – учень «студент» завжди будувалась на взаємодії цих двох сторін. А підвищений ризик отримати травму під час заняття фізичними вправами вимагає чіткого пояснення техніки виконання вправ та безпосередньої присутності викладача. В наслідок цього, питання організації та проведення занять з фізичного виховання під час карантинних обмежень постало надзвичайно гостро. Необхідно було, використовуючи невелику кількість існуючої інформації на цю тему, створити абсолютно новий формат проведення занять з фізичного виховання, який був би корисним з точки зору рухової активності студента, безпечним та цікавим для молоді.

Пристаючи до роботи, ми чітко усвідомлювали, що багато людей досить скептично ставляться до фізичного виховання крізь монітор комп'ютера. До нашого плану дослідження ми додали спеціальну роботу зі студентами для створення психологічного комфорту під час дистанційних занять саме з фізичного виховання. Загалом, в онлайн тренуваннях та лівстрімах нема нічого нового. Це давно працює в світі та, навіть, поставлено на комерційну основу. Але нам треба такі заняття адаптувати власне для студентів, намагаючи зацікавити їх та привчити до фізичної активності. Про що і йдеться в даній роботі.

**Ключові слова:** фізичне виховання, дистанційне навчання, студентська молодь

**Cherepovska O. Physical education in the context of distance learning.** A year ago, our usual lives underwent significant changes. It almost stopped. The conditions of the pandemic required new rules in the workplace. And while modern aspects of life are closely linked to the Internet and telecommuting, certain areas (including education) have needed to be revised and improved in the transition to distance learning.

The discipline "Physical Education" found itself in a difficult situation. The process of training and communication "coach (physical education teacher, instructor) - student" has always been based on the interaction of these two aspects. And the increased risk of injury during exercise requires a clear explanation of the technique of exercise and the direct presence of the teacher. As a result, the issue of organizing and conducting physical education classes during quarantine restrictions has become extremely acute. It was necessary, using a small amount of existing information on this topic, to create a completely new format of physical education