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### Itself Control by Application of the Technique Pulse Metria in the Classes of Physical Education at the University

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**Abstract:** The article is devoted to the problem of assessing the physical condition of students on the basis of the study of functional indicators of the cardiovascular system. The experiment was attended by students of the Belarusian State Medical Institute. Heart rate indices were registered in the self-control diary of each student, on the basis of which the amount of physical activity and the sequence of its implementation were determined. The method of heart rate measurement and self-monitoring was adopted as a basis.

**Keywords:** physical education, express method, physical exercise, self-control.

The relevance of this work lies in the growing need for and the use of self-control methods, both in physical education and in independent physical education of students at a university. The importance of this kind of research is reinforced by the lack of the necessary scientific and practical developments concerning the use of various forms of motor activity modes, criteria of the formed skill when using the method of self-control of students in physical exercises. Due to this, this problem loses its relevance, theoretical, educational and important pedagogical.

Physical education is an integral part of the process of education and professional training of future specialists for highly productive work and health of the body. Under the conditions of a university, the simplest and most objective method for determining the magnitude of physical activity is the method of pulse metry - determining the heart rate by palpation, which helps the teacher to quickly judge the correspondence of the proposed tasks, the age characteristics of the students, the level of their physical development and readiness. This method introduces and equips students with self-control skills.

Pulse monitoring - measuring the intensity of the load by registering the heart rate (heart rate).

The aim of the study is to use the method of pulsometry (rapid heart rate) in assessing the physical condition of students during the period of physical exercise.

#### Tasks:

- 1 To teach students to independently use express self-control when performing physical activity in physical education classes.
- 2 Determine the intensity of the exercise during exercise based on the readings of the heart rate.

The method of heart rate measurement used in physical exercises is the most accessible, informative and convenient. In spite of its availability, attention was paid to it still not enough, more often more complicated methods were used in the application and treatment of methods for determining various biochemical and physiological parameters. And all the same, heart rate monitoring, in addition to its ease of use, has the following positive features in obtaining data:

- > simplicity, reliability, availability;
- reliability and objectivity;
- > quick analysis of information.

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The available monitoring of the heart rate makes it possible to constantly monitor the dynamics of the heart rate indicator, taking into account which it is possible to determine the magnitude of the physical load, the intensity of performance and the periods of recovery.

In studies of the cardiovascular system, the heart rate (HR) is also considered a more labile indicator of the circulatory system, which changes as a result of a variety of influences - emotions, the action of physical and chemical environmental factors, diseases, muscle activity, etc. that the heart rate measurement method is one of the most accessible methods for monitoring the state of the body at the moment of performing a certain physical load, based on the training session, it was established that qualified athletes training endurance (athletes, swimmers, skiers) have a resting heart rate of 40-50 beats / min. Pulse mode of rational training load for students, which gives a training effect, for persons from 17 to 25 years old —134 beats / min [2].

Taking into account the reaction of the body to the work performed, as a result of the action of a certain physical activity, the limit of the value of the heart rate (HR) was determined. The upper limit of the heart rate after intensive exercise for students of the main medical group is 170-180 beats / min (cases are possible for well-trained students - and up to 200 beats / min). The limit of the average intensity should be considered as that which causes a heart rate of 140-160 beats / min, and a low one - 110-130 beats / min. In each lesson it is recommended to include 2-3 short "peaks" of the load with a duration of up to 2 minutes at a heart rate of 90-100% of the maximum [9,10].

To determine the intensity of the training load by heart rate, it is necessary to periodically test and combine the heart rate readings with the speed of movement and the amount of physical activity.

Complex measurer of pedagogical control in the classroom of physical culture included preliminary, staged, current, operational and final control, based on the results of: a) medical and pedagogical supervision with a timely assessment of the state of health of students; data of physical development and physical fitness of students.

Many people are familiar with the method of pulsometry, its main parameters, how to use it in accordance with age and the magnitude of the load, which depends on the density of the lesson, the total amount of work performed, its volume and intensity.

In the process of conducting the training sessions, we faced the problem that students do not know how to use the express method in education and physical qualities, how, during the performance of a certain physical load, based on the readings of the pulse, change the intensity, the pace of the exercise, the number of approaches and recovery periods.

The experiment involved a group of third-year students of young men in the amount of 25 people admitted for medical indicators in the inert group. The duration of the experiment is 6 months, the classes were carried out in the open stadium and in the gym according to the schedule and training plan.

A set of running exercises for the upbringing of speed-strength endurance has been developed; in the process of its implementation, the pulse was measured, first under the supervision of the teacher, then independently by each student.

The set of exercises included:

- > cyclic movements of a long nature;
- running endurance;
- > alternate running (FarLep) with varying intensity.

Since there are students in the group with different physical fitness and different degrees of health (but ISSN 2792-4025 (online), Published under Volume; 1 Issue; 4 in September-2021

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referring to the main group), the initial data of physical fitness and physical development of students were taken into account, therefore, the main criterion for the fulfillment of physical activity was taken heart rate indicators 131-150 beats / min - in work and at rest HR / min.

In the process of conducting the lesson, in order to solve the problems of upbringing speed-power endurance, the teacher at the initial stage monitored the heart rate readings of the students. At this stage, it is not necessary to be attentive to the appearance of the first external signs of fatigue, to regulate the physical load of the individual depending on the response of the student's body [4].

At the initial stage of pedagogical control, it was compulsory to keep a self-control diary, where students recorded heart rate readings at the time of the load after. These measurements were taken for each student in different states (at rest, under load, etc.) and plotted on an individual chart. Analyzing the heart rate readings, according to the data obtained, the current state of the student's body was assessed for the prevalence of fatigue or recovery processes, which made it possible to judge the possibility of further physical activity.

Gradually, from the lesson, the students more and more accurately determined the size of the load, correctly distributed the body's capabilities in the upbringing of speed-power endurance.

#### Indicators at growth

Physical activity was observed in the use of cross-country running and jogging exercises, the effectiveness of which depended on the state of physical qualities, aimed at ensuring all third-party training for the health improvement of the trainees.

An experiment was conducted with the training of students to independently use the expresstest, to determine the state of their body and its response to the physical load in the process of upbringing of speed-power qualities.

As a result of the research, the functional capabilities of the cardiovascular and respiratory systems have significantly improved in students, and as a result, the general physical fitness has increased, which in turn leads to an increase in speed-strength endurance and health improvement.

When optimizing physical activity, in order to achieve the main goal of physical education - strengthening the health of students, it is very important to choose the right value, which should have a healthy character, and correspond to the capabilities of the body.

The use of express test of self-control of the state of the body in physical and exercise classes reveals significant reserves that are available in physical education that are not necessary to increase the effectiveness of the educational process, improve health status and increase students' working capacity.

Applying this technique in practice, students in a simple and accessible way, can adjust, as well as dose the volume and intensity of physical activity, based on heart rate control, to achieve the goals set, taking into account the individual characteristics of their body

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