

THE IMPORTANCE OF TYPES OF MEDICAL SUPERVISION OF A DOCTOR IN THE DEVELOPMENT OF MEDICAL KNOWLEDGE OF FUTURE TEACHERS OF PHYSICAL CULTURE

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Abstract. *This article discusses in detail the types of medical supervision, medical groups, types of medical examination of practitioners and their main tasks. In addition, university students were given the opportunity to get an idea of the types of medical supervision in order to enrich their medical knowledge.*

Keywords: *medical control, medical and pedagogical control, styles of medical and pedagogical control, pulse, blood pressure, anamnesis, self-examination, breathing, skin color, load, electrocardiography, electromyography.*

Research on improving the quality of medical knowledge, increasing physical activity, developing medical culture, ensuring the quality of educational activities, modeling the educational process, improving training and developing competencies in the world's higher educational institutions. is being conducted. Therefore, scientific researches on teaching future physical education teachers information about medical knowledge through effective methods, raising the quality of education to the international level, and improving the pedagogical skills of future teachers. 'attention is being paid.

Education of students in higher education institutions in a physically, mentally and emotionally healthy spirit, strengthening their health, treating and preventing diseases, diagnosing the physical condition of student athletes, properly monitoring and rehabilitating the loads given to them, organization of educational processes through the most modern and effective methods in order to develop the medical knowledge of future physical education teachers is considered a priority task.

Presidential Decree PD-No.5590 of the President of the Republic of Uzbekistan dated December 7, 2018 "On comprehensive measures to fundamentally improve the Health Care System of the Republic of Uzbekistan" was signed. According to the decree: Concept of prevention of non-communicable diseases, support of healthy lifestyle of the population and increase of physical activity level in 2019-2022, support of healthy lifestyle of the population and physical activity in 2019-2022 The program of measures to increase the level was approved [1].

The connection between medicine and physical culture dates back to ancient times. For many centuries, doctors have been actively involved in the rational use of various directions of physical culture. In ancient Rome, doctors worked in gladiator and wrestler schools. This activity was praised by Hippocrates (460-377 BC).

The scientific basis of medical supervision was founded by P. F. Lesgaft, and at the end of the 19th century, on his initiative, for the first time in Russia, three-year courses on the training of physical education teachers were organized in St. Petersburg. His student V. V. Gorinevsky elaborated Lesgaft's theory about the organic connection between physical, mental and moral

education of a person. He described the method of medical observation of people engaged in physical culture and sports [2].

Along with the development of physical education in Uzbekistan, a new independent branch of medicine, medical supervision in physical education, has emerged.

Medical supervision is important and relevant for physical education students and athletes. The system of medical support for persons engaged in physical education and sports is called medical supervision in physical education [3].

From a scientific point of view, medical supervision is an independent branch of medical science that studies the health, physical development and functional capabilities of people who regularly engage in physical exercises and sports. V. E. Vasileva, D. F. Deshin, V. K. Dobrovolsky, S. M. Ivanov, G. I. Krasnoselsky, I. A. Krachko and others made a great contribution to the improvement of medical control in the 40s and 50s [4].

The introduction of the ideas of physical education into medical science dates back to the end of the 18th and the beginning of the 19th century. P. F. Lesgaft and V. V. Gorinevsky became the founders of the problem of physical education. At the current stage, the foundations of sports medicine and medical supervision were laid by S. P. Letunov and R. E. Motilyanskaya, who led the boplim at the Research Institute of Physical Education in Moscow in the 1950s and later. In the development of medical supervision of athletes in the Republic of Uzbekistan, Assoc. i.p. Il'insky, M.B. Frank, O.M. Jegallo, O.A. Rikhsieva, A.Kh. Turakhodzhaev made a great contribution.

The tasks of medical supervision include:

-monitoring the health, physical development and work performance of persons engaged in physical exercises and sports;

-monitoring the correct use of physical education tools and methods, taking into account the gender, age, health and physical fitness of students, preventing and eliminating negative events during training (retraining, overtime, etc.);

-consists of sanitary control and hygienic conditions of training places, prevention of sports injuries, as well as their treatment.

Children's physical education teachers should thoroughly understand the nature of medical supervision. The main goal of medical supervision in the field of physical education is to support the effective use of physical education tools and methods to strengthen the health, physical development and physical fitness of its participants. Passing a medical check-up will definitely eliminate health deficiencies and injury prevention. For this purpose, it is necessary to conduct a thorough medical examination of each practitioner. In addition to the types of medical supervision, there is another important type of supervision, which is medical pedagogical supervision, that is, examinations conducted together with a doctor and a trainer during physical education classes, training or competitions. With the help of such control, the effect of physical exercises on the body of those engaged in physical education and sports is evaluated, the level of functional physical fitness of the body is determined, and the educational training process is improved based on these checks. Medical-pedagogical control in sports forms the basis of complex control. Comprehensive examinations include pedagogical, psychological and medical examinations. The theoretical and practical foundations of TPF were developed by representatives of sports medicine in the 40s and 50s.

In the process of TPF, signs of incomplete recovery of the athlete after loading and extreme fatigue or extreme stress are clearly visible. The coach draws conclusions from these results, studies the training process and makes corrections. The coach should know well which exercise affects which part of the body. The effectiveness of the training process will be greatly increased if each exercise is selected according to the microcycle and mesocycle. A doctor may not always be able to participate in TPF, so a trainer or physical education teacher should know simple medical examination methods and use this knowledge to evaluate the effect of exercises. , and proper organization of the training process is necessary.

The main tasks of medical pedagogical control:

1. To study the effect of physical exercises on the body of athletes, to determine the suitability of given exercises to their level of physical fitness;
2. To determine the health and functional status of employees in order to assess their functional readiness;
3. Evaluation of the appropriateness of the training equipment covered for the athlete in order to improve the planning of the educational training process;
4. Selection and evaluation of pedagogical, psychological, medical tools and methods aimed at improving the recovery process after heavy loads;
5. Evaluation of the conditions and organization of training exercises [5].

It is necessary to make the task of TpN as clear as possible to teachers of physical education, and teach them that it should be focused on a goal. The task is mainly covered by the trainer, but the doctor can also be covered. The doctor is responsible for organizing training conditions, grouping participants and assessing their health. Assessing the athlete's physical fitness, improving the training process, and improving the recovery process are assigned to the trainer.

There are several methods used in conducting medical-pedagogical control. Various research methods can be used in TpN. TpN is of great importance only when methods are used that allow to determine changes in the functional states of several systems. The degree and nature of such changes can be a reliable criterion for assessing the impact of loads and assessing the duration of recovery. Biochemical research methods are of great importance in managing the training process. In the comprehensive assessment of the athlete's condition, conducting a comprehensive medical check-up based only on biochemical research leads to a big mistake. Changes in the state of the body under the influence of training and relatively accurate management of the training process allow TpN complex method to be adequately and fully evaluated [6].

Question-and-answer (anamnesis) and external examination (somatoscopy) during the medical-pedagogical supervision, observation of symptoms of fatigue in participants, help for the doctor and trainer to determine the state of the athlete's body, his level of stress, fatigue, and exercise. will give.

It is possible to determine the level of fatigue based on self-examination, physical appearance (skin color, sweating level, breathing, movement stability, attention) [7].

The unchanged or slightly reddening of the skin of the face, slight sweating, rapid breathing, absence of changes in movement coordination, briskness in running and jogging, testify to the fact that the participant is at a low level of fatigue. Methods used in medical-pedagogical control.

The average level of fatigue is determined by redness of the face, excessive sweating, deep and rapid breathing, changes in movement coordination (changes in the step during exercise and walking, swaying to the side), decreased attention.

At the extreme level of exhaustion, sudden reddening of the face, appearance of salt on the t-shirt when sweating, rapid breathing, sometimes irregular breathing, shortness of breath, considerable disturbance of movement coordination (sometimes falling on the side, breakdown of technique) is characterized by

In self-examination, great importance is attached mainly to the external appearance and the color of the skin. When assessing the level of sweating, it is necessary to take into account the intensity of the load, the temperature of the day, the presence or absence of wind, and the consumption of drinks [8].

One of the important ways to assess the effect of physical load is to determine body weight and changes in it. After loading, the athlete's weight should decrease by 300-500 g, and those who start exercising should decrease by 700-1000 g. After high-speed and long-term loading (long-distance running, long-distance running and cycling races), 2-6 kg of weight should be lost. During the preparatory period of the annual training cycle, weight loss is more active than in other periods. The athlete's weight is normalized when he reaches the top sports form.

Most importantly, determining the activity of the cardiovascular system is of great importance in evaluating the body's response to physical exercise. Pulps and blood pressure are measured before training, after training, in the main part of training, after completing some training, after rest or during the period of reduction of loading intensity. The participant should be asked about his feelings, fatigue, desire to exercise, difficulty in performing some exercises before and during the exercise. Absence of complaints and feeling well does not always indicate that the body is well adapted to loads. Because in some diseases, for example, heart failure, it can be detected only with the help of special methods. If the exerciser has some complaints during the exercise and after the exercise, it indicates that the loads are not suitable for the exerciser's training and his health has deteriorated. Therefore, the supervisor must supervise the practitioner carefully. An important indicator of the functional state of the body is the speed of pulp regeneration. The pulse of well-adapted sorters is 60-80 beats per minute at rest, and decreases from 180 to 120 beats after 2 minutes of physical exertion. If the patient's pulse returns to its previous state, it means that he did not receive a large load, on the contrary, if the pulse does not return to the normal state with large changes, it means that the load was given to him incorrectly and the patient has vascular diseases. Changes in arterial blood pressure give an opportunity to determine the resistance of the body to physical exercise. It is important to compare the maximum, minimum and pulse pressures when evaluating the changes in PP [9].

The maximum load depends on the organism, and the maximum and minimum PP changes should be proportional in order to adapt to the organism, if the pulse is fast, the maximum blood pressure will be high. When the body's ability to exercise deteriorates, the change in maximum blood pressure decreases, and the acceleration of the pulps is maintained. The ultimate limit of functional deterioration is a hypotonic reaction. Such a reaction can be in a state of extreme fatigue after exercises performed to increase endurance [10].

When the load pressure is high, there are cases of excessive increase in maximum blood pressure during rapid strength exercises: hypertensive reaction (220-240 mm.sm.). The normal reaction of minimum blood pressure to physical exercise is shown by its decrease. But sometimes

the minimum blood pressure does not change or increases. Such a situation is a sign of a decrease in the body's ability to adapt to exercise. When the athlete's preparation corresponds to the performed exercise, the pulps accelerate, the maximum blood pressure increases, and the minimum blood pressure decreases. A decrease in pulpal pressure after exercise represents an extreme fatigue of the CNS system and indicates a poor adaptation to the load [11].

The method of electrocardiography is used in all forms of medical and pedagogical control. In the ECG parameters, preservation of sinus rhythm, preservation of duration of interventricular and interventricular conduction, good response to loads is considered. The appearance of extrasystoles in the ECG, changes in interventricular and interventricular conductivity, decrease in the R wave, and the appearance of a negative T wave indicate the excessive intensity of the loads, and also play an important role in making an accurate diagnosis.

One of the simplest and most common methods is to determine the frequency of breathing. Breathing frequency is determined at rest, before exercise, during exercise, after exercise. After physical exercise, the frequency of breathing can reach 30-60 for 1 minute.

It is determined during the exercise, before the exercise, between the exercises and after the exercise to measure the vital capacity of the lungs (CL) and the maximum ventilation of the lungs (VL). After light exercises, these indicators slightly increase or decrease (CL by 100-200 ml, VL by 2-4 liters). After excessive exercise, OT can decrease by 300-500 ml and OMV by 5-10 liters [12].

One of the most important tests in medical and pedagogical control is the examination of the neuromuscular system. When conducting medical and pedagogical control, it is necessary to carry out as many examinations as possible: it is necessary to determine the speed of movement of legs and arms, strength and static resistance of muscles, specific performance of movements, Romberg's test, presence of hand tremors.

One of the next tests in medical and pedagogical control is the latent period of movement reactions, which can be determined and evaluated using electromyography, the latent periods of muscle tension, because the change in these indicators evaluates the degree of fatigue.

In recent times, clinical and biochemical methods are of great importance and are widely used in medical and pedagogical control. The amount of lactic acid in the blood helps to determine the direction of training. Therefore, the determination of lactic acid plays an important role in the organization of exercises.

Blood is taken from the finger 3 minutes after the training to conduct tests during the training. If the amount of lactic acid after training is less than 4 mol/l, the loads are not enough. In trainings that develop the quality of endurance, the amount of lactic acid should be 5-6 mol/l, and in trainings designed to save anaerobic metabolism, it should be 8-11 mol/l.

The amount of urea in the blood helps to determine the body's adaptation to loads. Blood urea is a breakdown product of proteins. In athletes, the amount of urea in the morning is 3.5-7 mol/l, if it exceeds 7 mol/l, it is a sign of imbalance in exchange processes, and if it exceeds 8 mol/l, it is a consequence of excessive load. The amount of inorganic phosphate in the blood is determined when determining the effectiveness of exercises that develop speed and quick qualities. As a result of clinical and biochemical tests, 11 oxycorticosteroids, glucose and other important substances are determined [13].

In conclusion, it is necessary for the teachers, physical education teachers and sports coaches to have medical knowledge, to be able to supervise not only the athletes, but also the

students and teachers, as well as to carefully supervise their students, as well as measures to prevent injuries and diseases. It plays an important role.

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