

## THE PLACE OF AVICENNA'S SCIENTIFIC LEGACY ON PHYSICAL EDUCATION IN MODERN PHYSICAL EDUCATION THEORY

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**Annotation.** The article reveals the scientific heritage of the great Uzbek scholar Avicenna's on the importance of physical education in human health and its role in the theory of modern physical education. Avicenna's experience in the use of physical training in the prevention and treatment of various diseases, as well as his teachings on improving and perfecting human health through physical education, are widely covered.

**Key words:** Avicenna's scientific heritage, humanists, laws of medicine, physical education, human health, physical development, physical maturity, massage, wrestling, theory of physical education.

The great scientist Avicenna's, who made a great contribution to the development of world science, especially medical science, is a great scientist who, among many other fields, created the theoretical foundations of the system of physical education.

Avicenna's developed the importance of physical education exercises in human life and methods of their application V-VIII centuries before medieval humanists d. Mercurialis, De Fel'tre, Monten, Rable, or the founders of the new era theory of physical education, J. Lökk, J.J. Russo, I. Pestolotsii, J. Demeni, Lesgaft. It is no exaggeration to say that his teaching on physical education and its various forms in the world-famous "Laws of Medicine" "Tib qonunlari" was the foundation of modern physical education.

At present, one of the most important tasks is to educate our youth in the national spirit through a broad study of the great scientific heritage and values of our great ancestors, and it is very important to study and analyze the teachings of the great scholar Avicenna's on physical nature.

Avicenna's scientific and pedagogical heritage is incomparable. Among them, the "Laws of Medicine" "Tib qonunlari" is of particular importance. This work has been translated into the languages of almost all peoples of the world. It was first translated into Uzbek in 1953 and later in (1956, 1980, 1993) has been republished.

There are a lot of well-known scholars who have studied, analyzed and explained the essence of Avicenna's creative activity, "Laws of Medicine" and other works. In Uzbekistan alone, their number exceeds from one hundred.

Well-known SR Rakhimov (Samarkand State University), Honored Scientist of the Republic, Professor O.A. Rikhsieva (UzSWLU) and others have made a great contribution to the deep study of the scientific and pedagogical heritage of the great scientist.

In the words of Avicenna, "The main measure of health is physical training." It is known that more than 30 medical works of the writer have survived to this day. In all of them, the author's advanced ideas on exercise meet the content of practical exercises. It should be noted that Avicenna gives the form and content of physical exercise and its essence in a complex of measures for hygiene, health and treatment of the patient. This is an education that determines when and in what order everyone should exercise. Such an approach to the issue would be appropriate.

When it comes to the "Laws of medicine", the first part of the book is almost entirely devoted to the preservation and development of human health. The most important thing is that the book scientifically describes the human body and its organs, the anatomical structures that take place in the formation and development of a man, the state of physiological and mental processes, the causes of disease. Knowing these situations, on this basis, the application in life of social and educational processes, such as self-education of people, is one of the most pressing problems of today's world.

Avicenna's idea that physical exercise should be performed in different forms and styles, depending on one's age, gender, health and disease, is very valid.

It also emphasizes the need for a different approach to exercise in the ideas of childhood, adolescence, youth and old age. It can be said that the heritage of scientific and pedagogical education is a reality of social life that is embedded in the physical culture of the peoples of the world. ((1.3.6).

One of the highest and most vital aspects of Avicenna's teaching is that "Physical training is a voluntary action that forces a person to breathe deeply and consistently...The person, who does physical exercises constantly and in time, does not need any treatment from some special diseases caused by spoiled humors" (1).

Avicenna's experience in the use of physical training in the prevention and treatment of various diseases is also approved by the Honored Scientist of the Republic, Doctor of Medical Sciences, professor O.A. Rikhsieva.

The great scientist refers to physical training mainly in terms of special physical training activities. For this reason, there are so many types of physical training that they remind you that they can be performed in fast, gentle, light speed, and so on. This is definitely a basic education for every practitioner from a scientific point of view. Avicenna says that shooting, fighting, archery, brisk walking, javelin throwing, hanging, one-legged jumping, fencing, javelin throwing and horseback riding are among *the fastest forms of physical training*. *Gentle and light types* include jumping rope, swinging upright or lying down on a swing, hiking in boats and ships, and other activities, he says.

The strong type of physical training, such as wrestling with a person's shadow, playing chess with big and small balls, wrestling, rock climbing, pulling a galloping horse from the reins. (1.2.).

According to Avicenna's advice, during training one should pay attention to constant alternation of fast and violent movements, with light ones, as well as methods of not performing a certain movement for a long time.

Admittedly, the fact that this physical training which was tested and scientifically based in practice thousands of years ago, and now it has become an important criterion of the International Sports Movement which surprises coaches in all sports all over the world. Avicenna reminds that each organ has a special action - exercise - to cure the disease.

He referred massage exercises and divided them into the following types:

- Strengthening the body - strong massage.
- smoothing the body
- weak massage
- contaminating-continuous massage
- body growth-moderate massage.

The scientist points out that the massage can be rough or light. Rough massage is performed with a coarse cloth. Light massage is performed with a palm or a light (thin) cloth. Massages are mainly used to tighten loose limbs, tighten the soft ones, soften the rough ones and soften the hard ones. In addition, scientist also gives information on physical education-related massages:

- a) massage called before physical training (used in the present time before sports training, competitions;
- b) massage after physical training:



This can be called a soothing massage or a soothing massage. This condition is applied after performing excessive fatigue, too much heavy exercise (training, competition). Massage exercises are often used in life, especially after a wrestling match. One can be the witness of the fact that massage plays an important role in the acceleration (rhythm) of the circulatory system, improving breathing; the proper functioning of the digestive system can be seen in the scientific and practical education of the scientist. (1.2.5.)

It should also be noted that Avicenna considers rest, sleep and proper nutrition to be the most important factors in maintaining and strengthening health. One of the most important aspects of Avicenna's teachings on physical education is the types of wrestling.

Avicenna's thinking on improving human health through physical education and its perfection is illustrated in his works. He has incorporated in his works a set of exercises that activate the movements of the arms and legs, the natural movements of the chest and respiratory organs, let alone all the organs. In doing so, he gave exercises to immobilize all the organs in the vocal cords (loud-low voice, tongue pulling, pulling, twisting, spitting, etc.). He recommends swinging, vibrating, riding in carts, and more for internal limb running exercises. (1. 6).

Avicenna's scientific and pedagogical heritage includes as the most important means of physical education the contents of bathing, bathing in cold water, drinking water and beverages, eating, sleeping and resting. It also shows the basics of physical training in old age and moving towards the seasons during journey (travel) in general.

### **In conclusion,**

Avicenna was one of the first scientists in the world to theoretically substantiate, emphasizing that one of the best measures in maintaining human health and preventing any diseases is physical training. This theory was later developed by the medieval humanists De Feltré, I. Mercurialis, Rable, Monten, Jan Amos Kamensky, New Age educators J. Locke, J.J. Russo, P. F. Lesgaft, L. P. Matveev et al. Of course, this idea has not lost its relevance today.

Scientists who make a great contribution to the basis of the theory and methodology of physical education in our republic R. Salomov, Sh. Khonkeldiev, O. Abdullaev, F. Kerimov, In the textbooks of Rixsieva and many other scientists, one of the main tasks of physical nature is the task of health, and this task includes strengthening the body, development of all organs and systems of the body, prevention and treatment of various diseases, creative longevity. Exercise increases the strength of bone tissue, ensures the strong attachment of the joints to the

bones, strengthens the spine, expands the chest, increases the elongation of the joints, the connection with the joints. The basis of physical training created by Avicenna is to improve human health, strengthen the body, prevent and treat diseases by removing food waste from the human body through exercise, increasing body temperature and removing toxins from the body.

Avicenna's idea that physical training should be carried out in different forms and methods, depending on one's age, sex, health and illness, is also fully based on modern science, and it is on this basis that physical education is practised. This is mainly reflected in the general principles of the physical culture system of Uzbekistan. The principle of health-oriented physical education states that any physical activity should be appropriate for the age, sex, and physical development of the participant. Because exercise has both physiological, pedagogical and psychological effects on the human body. Therefore, physical exercise should be chosen according to the age of the practitioner. If the exercise or physical load is not appropriate for the age of the participants, physiological processes in the body go wrong and this has a negative impact on the health of the body. These great physiologists I.M. Sechenov, I. P. Pavlov argued in their scientific work. There are also large physiological differences in the development of the male body and the development of the female body. Their physiological development varies at different ages. Therefore, the fact that exercise is given according to the sex of the participants in modern physical education teaching methods I.M. Sechenov, I. P. Pavlov P.V. Matveev, N.G. Ozolin, A. Ashmarin, P. F. Lesgaft and other scientists have provided in a scientific basis. (6.7.).

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