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PHYSICAL EXERCISES AS THE MAIN MEANS OF PHYSICAL EDUCATION

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Annotation: This article analyzes the essence, classification, and pedagogical significance of physical exercises as the main means of physical education. It examines the structure of physical exercises, the mechanisms of their influence on the human body, the principles of their selection, and the methodological aspects of their application in the educational process. Based on the research findings, practical recommendations for improving the effectiveness of using physical exercises have been developed.

Keywords: physical exercise, physical education, motor activity, physical qualities, methodology, pedagogical process, health improvement.

Annotatsiya: Ushbu maqolada jismoniy mashqlarning jismoniy tarbiyaning asosiy vositasi sifatidagi mohiyati, tasnifi va pedagogik ahamiyati tahlil qilingan. Jismoniy mashqlarning tuzilishi, ta'sir mexanizmlari, tanlash tamoyillari hamda ta'lim jarayonida qo'llanilishining metodik jihatlari yoritilgan. Tadqiqot natijalari asosida jismoniy mashqlardan foydalanish samaradorligini oshirish bo'yicha amaliy tavsiyalar ishlab chiqilgan.

Kalit so'zlar; jismoniy mashq, jismoniy tarbiya, harakat faoliyati, jismoniy sifatlar, metodika, pedagogik jarayon, sog'lomlashtirish.

Аннотация: В данной статье анализируются сущность, классификация и педагогическое значение физических упражнений как основного средства физического воспитания. Освещены структура физических упражнений, механизмы их воздействия, принципы отбора, а также методические аспекты их применения в учебном процессе. На основе результатов исследования разработаны практические рекомендации по повышению эффективности использования физических упражнений.

Ключевые слова: физическое упражнение, физическое воспитание, двигательная деятельность, физические качества, методика, педагогический процесс, оздоровление.

Introduction

The formation of a physically healthy, harmoniously developed generation is one of the priority directions of state policy in the Republic of Uzbekistan. Among all pedagogical means used to achieve this goal, the physical exercise occupies the central place, since it is precisely through purposeful, systematically organized movement activity that the human organism develops its motor abilities, strengthens its functional systems, and forms stable habits of a healthy lifestyle. Physical exercises are not merely a set of mechanical movements; they represent a specific pedagogical tool consciously

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created and applied in accordance with the laws of physical education in order to solve educational, developmental, and health-related tasks.

In recent years, a number of normative and legal documents aimed at reforming the system of physical education and sport, adapting its content to modern requirements, and increasing the physical activity of the younger generation have been adopted in our country [1]. These documents pay particular attention to the scientifically grounded organization of physical exercises at all levels of education - from preschool institutions to higher educational establishments. At the same time, in pedagogical practice a number of unresolved issues remain: the insufficient methodological substantiation of exercise selection, the weak consideration of individual and age-related characteristics of learners, the underuse of modern classification systems, and the gap between theoretical knowledge and its practical application by educators and coaches.

The relevance of the topic is further strengthened by the fact that, under the conditions of a rapidly changing lifestyle, characterized by increased mental load, reduced motor activity, and the widespread use of digital technologies, physical exercise is becoming an even more essential factor in maintaining human health and working capacity. Consequently, a deep scientific understanding of physical exercises as the main means of physical education, together with the development of practically oriented recommendations for their effective use, acquires particular pedagogical significance.

The purpose of the present research is to study the theoretical and methodological foundations of physical exercises as the main means of physical education, to analyze their classification, structure, and mechanisms of influence on the human organism, and to elaborate practical recommendations for increasing the effectiveness of their application in the pedagogical process. To achieve this purpose, the following tasks were set: to reveal the essence and specific features of physical exercise as a pedagogical category; to study the existing classifications of physical exercises; to analyze the principles and conditions of their selection and dosage; to examine the methods of teaching physical exercises; to compare foreign and national approaches to their use; and to formulate practical recommendations based on the obtained results.

The scientific novelty of the research lies in a comprehensive approach that combines the physiological, pedagogical, and methodological aspects of physical exercises within a single analytical framework, taking into account both traditional national experience and modern international practice. The practical significance of the article is that its results can be used by physical education teachers, coaches, methodologists, and students of pedagogical directions as educational and methodological material.

Research Methodology

A complex of scientific research methods was used in the course of the study. The method of theoretical analysis made it possible to study scientific and methodological literature, normative documents, and state educational programs related to the theory of physical exercises and physical education. The comparative analysis method was applied to compare various classifications of physical exercises and the approaches used in different pedagogical systems. The method of generalization and systematization was used to bring together the theoretical and practical material collected during the research into a unified logical system and to formulate the corresponding conclusions and recommendations. In addition, the method of pedagogical observation was employed

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to examine how physical exercises are practically organized and applied within the educational process.

The theoretical basis of the research is formed by the works of local and foreign scholars devoted to the theory and methodology of physical culture, as well as the normative requirements of the State Educational Standard concerning physical education. The data collected in the course of the study were systematically analyzed, and conclusions were drawn on the basis of the revealed interrelations between the theoretical provisions and their practical implementation.

Main Part

1. The essence of physical exercise as a pedagogical category

A physical exercise is defined as a motor action, or a set of motor actions, purposefully organized and systematically repeated in accordance with the laws and principles of physical education in order to solve specific educational, developmental, and health-improving tasks [2]. Unlike an ordinary, spontaneous movement, a physical exercise always possesses a pedagogical orientation: it is selected, dosed, and organized by the teacher (or performed consciously by the learner) with a definite purpose - the development of a particular physical quality, the formation of a motor skill, or the improvement of a functional state of the organism.

The specific feature of physical exercise lies in the unity of its external (visible) form and its internal (physiological, biomechanical, and psychological) content. The external form includes the spatial, temporal, and dynamic characteristics of the movement - its trajectory, amplitude, rhythm, tempo, and the sequence of the phases performed. The internal content, in turn, encompasses the neuromuscular coordination processes, the activity of the cardiovascular and respiratory systems, the level of energy expenditure, and the psychological effort accompanying the performance of the exercise. Only a harmonious interaction between these two aspects allows a physical exercise to fulfill its pedagogical function effectively.

It is also important to distinguish between the concepts of “physical exercise” and “movement” in general. Not every movement can be regarded as a physical exercise; a movement acquires the status of a physical exercise only when it is used purposefully within a system of physical education to achieve concretely formulated pedagogical objectives. This distinction underlines the pedagogical, rather than purely biological, nature of the physical exercise as a category of the theory of physical culture.

2. Classification of physical exercises

The scientific literature offers several approaches to the classification of physical exercises, each reflecting a particular aspect of their pedagogical or biological essence. According to the anatomical criterion, exercises are divided into groups depending on the muscle groups predominantly involved - exercises for the muscles of the arms and shoulder girdle, the trunk, and the lower limbs. According to their effect on the development of physical qualities, physical exercises are classified into exercises for the development of strength, speed, endurance, flexibility, and coordination abilities (agility).

According to the structural characteristics of movement, exercises are divided into cyclic (running, swimming, cycling), acyclic (jumping, throwing), and combined (mixed) exercises, in which cyclic and acyclic elements are integrated within a single motor action, as is often the case in sports games. Depending on their predominant physiological effect on the organism, physical exercises may

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be classified according to their intensity and the corresponding energy-supply mechanisms - aerobic exercises, characterized by moderate and prolonged effort, and anaerobic exercises, characterized by short-term but maximal intensity of muscular work.

From the pedagogical point of view, of particular importance is the classification of exercises according to their didactic purpose: exercises for the initial teaching of a motor action, exercises for the consolidation and perfection of an already formed skill, and exercises applied for the correction of technical errors. In addition, physical exercises are traditionally grouped into the following broad categories widely used in the practice of physical education: gymnastic exercises (basic, developmental, and applied gymnastics), athletic exercises (running, jumping, throwing), sport games, tourism (walking and excursions in a natural environment), and elements of national and folk movement games, which occupy a particularly important place within the national system of physical education.

3. Mechanisms of the influence of physical exercises on the human organism

The pedagogical effectiveness of physical exercises is inseparably linked with their physiological effect on the human organism. Systematic and adequately dosed physical exercise stimulates adaptive changes in the cardiovascular, respiratory, muscular, and nervous systems, gradually increasing the functional reserves of the organism [3]. Regular training loads lead to an increase in the strength and elasticity of the muscular apparatus, the improvement of the coordination between the central nervous system and the peripheral motor units, and the strengthening of the skeletal system, which is particularly important during the periods of active growth of children and adolescents.

Alongside their physiological effect, physical exercises exert a significant influence on the psychological and social development of the learner. Through purposefully organized motor activity, such personal qualities as willpower, perseverance, self-discipline, and the ability to overcome difficulties are cultivated. Collective forms of exercise, in particular sport games and relay competitions, additionally contribute to the development of communicative skills, a sense of collective responsibility, and the ability to cooperate within a team, thereby demonstrating that physical exercise is simultaneously a means of health improvement and a comprehensive tool of upbringing.

4. Principles of the selection and dosage of physical exercises

The effectiveness of physical exercises directly depends on how correctly they are selected and dosed in accordance with the age, sex, level of physical preparedness, and health condition of the learners. The theory of physical education distinguishes several fundamental principles that must be observed when organizing exercise programs. The principle of gradualness and consistency "from simple to complex," "from known to unknown" requires that the complexity and intensity of exercises be increased step by step, without abrupt jumps that could lead to overload or injury [4].

The principle of systematic character presupposes the regular, uninterrupted repetition of exercises, since a lasting training effect can only be achieved through continuous, rather than episodic, practice. The principle of individualization requires that the teacher take into account the personal characteristics of each learner - their physical development, temperament, and state of health - when selecting the type, volume, and intensity of the exercises. Finally, the principle of variety and emotional attractiveness reflects the necessity of combining different types of exercises and applying game-based and competitive forms of organization, particularly important when working with children

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of preschool and younger school age, in order to sustain their interest and motivation toward physical activity.

Correct dosage of the physical load is achieved through the regulation of several interrelated parameters: the volume of the exercise (the number of repetitions, sets, or the duration of performance), the intensity (the tempo, amplitude, and degree of muscular effort), the intervals and character of rest between repetitions, and the overall density of the lesson. A methodologically competent combination of these parameters allows the teacher to direct the training effect precisely toward the pedagogical objective that has been set, whether it is the development of a particular physical quality or the improvement of general working capacity.

5. Methods of teaching physical exercises

In the practice of physical education, three main groups of methods are traditionally applied for teaching physical exercises: practical, visual, and verbal methods. The practical methods include the repetition method, the game method, and the competitive method. The repetition method, based on the multiple performance of an exercise in a standard or varied form, remains the primary means of forming and consolidating a motor skill [5]. The game method, widely used especially in preschool and primary school pedagogy, allows the learner to master motor actions in an emotionally attractive and natural environment, while the competitive method stimulates the mobilization of the learner's maximal physical and volitional capacities.

The visual methods comprise the direct demonstration of an exercise by the teacher, the use of illustrative material such as pictures, diagrams, and video recordings, and the application of various forms of directed sensory guidance, all of which serve to create in the learner's mind a correct visual representation of the technique to be performed. The verbal methods - explanation, instruction, narration, and conversation - are indispensable for the conscious understanding of the exercise's structure, its purpose, and the rules of its correct execution, and they play a particularly important role in the correction of technical errors.

Modern pedagogy also emphasizes the necessity of an individualized and differentiated approach in the process of teaching physical exercises. Depending on the level of a learner's motor preparedness and their state of health, the teacher should adapt the volume, complexity, and intensity of the assigned tasks, ensuring that every learner receives a load appropriate to their individual capacities, which is a fundamental condition for both the safety and the pedagogical effectiveness of the educational process.

6. Physical exercises as a means of forming a healthy lifestyle

Beyond their immediate training effect, physical exercises play a crucial role in shaping a learner's stable attitude toward a healthy lifestyle. The systematic practice of physical exercises from an early age contributes to the formation of correct posture, the strengthening of the immune system, and the prevention of a wide range of diseases associated with insufficient motor activity, including obesity, cardiovascular disorders, and postural deviations [6]. Furthermore, the habit of regular physical activity, once formed during the school years, tends to persist throughout an individual's later life, which underscores the long-term social significance of properly organized physical education.

The introduction of health-improving technologies into the process of physical education - breathing exercises, exercises for the correction of posture and flat-footedness, finger gymnastics, and

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elements of natural hardening - further enhances the health-related effect of physical exercises and should be regarded as a necessary complement to the traditional forms of physical education classes.

7. Monitoring and evaluation of physical exercise effectiveness

The effective use of physical exercises within the pedagogical process cannot be ensured without a well-organized system of monitoring and evaluation. Periodic diagnostics of learners' physical preparedness, usually conducted at the beginning and at the end of an academic period, make it possible to objectively determine the initial level of development of the main physical qualities and to track the dynamics of their improvement over time [7]. Standard test tasks - such as short-distance running for speed, the standing long jump for explosive strength, flexibility tests, and balance tasks for coordination - are widely used for this purpose, as they are simple to administer and provide comparable, easily interpretable results.

The data obtained through such monitoring perform several important pedagogical functions. First, they allow the teacher to verify whether the selected system of physical exercises corresponds to the actual capacities and needs of the learners, and to introduce timely corrections into the exercise program if necessary. Second, systematic monitoring provides each learner with objective feedback regarding their own progress, which has a considerable motivational effect and strengthens their conscious, active attitude toward physical exercise. Third, the accumulated diagnostic data serve as a valuable source of information for methodologists and researchers studying the age-related dynamics of physical development and the comparative effectiveness of different exercise programs.

It should be emphasized that monitoring must never be reduced to a purely formal, quantitative procedure. A pedagogically sound evaluation of the effectiveness of physical exercises should also take into account qualitative indicators, such as the correctness of movement technique, the degree of a learner's independence in performing an exercise, and changes in their emotional attitude toward physical activity. Only such a comprehensive, multidimensional approach to evaluation allows the teacher to obtain a genuinely reliable picture of the pedagogical effect achieved through the systematic application of physical exercises.

Comparative Analysis with Foreign Experience

A comparative examination of foreign and national approaches to the use of physical exercises reveals both common tendencies and considerable differences conditioned by cultural, climatic, and historical factors. In many European countries, particularly in the Scandinavian educational tradition, special emphasis is placed on outdoor, free movement activities, in which children are given considerable independence in choosing the character and intensity of their motor activity within a natural environment. Such an approach is aimed at developing independence, the ability to assess risk, and self-regulation skills.

In the countries of East Asia, by contrast, greater attention is traditionally given to systematic, disciplined forms of exercise, rhythmic gymnastics, and synchronized group movement activities, which contribute to the formation of discipline and a strong sense of collective cohesion among learners. In the countries of the Commonwealth of Independent States, including Uzbekistan, the system of physical education has historically been based on a harmonious combination of systematized lessons, morning exercise sessions, and health-improving activities, a model that ensures the consistent development of physical qualities while simultaneously instilling such national educational values as diligence and discipline.

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At the same time, the rich national pedagogical heritage of Uzbekistan contains a considerable number of traditional movement games and exercises historically used for the hardening and comprehensive physical development of children, such as "Arqon tortish" "Berkinmachoq," and other folk games. The purposeful integration of this national heritage with modern, internationally recognized pedagogical technologies - including elements of free outdoor activity and individualized approaches to exercise selection - represents a promising direction for the further enrichment and modernization of the national system of physical education [8].

Results and Discussion

The conducted analysis demonstrates that the effectiveness of physical exercises as the main means of physical education depends on the harmonious interaction of several interrelated factors. First, the correspondence of the selected exercises to the age-related and individual characteristics of learners constitutes the fundamental methodological condition for achieving a positive training effect. Second, the professional competence of the teacher - including their knowledge of physiology and pedagogy, their ability to correctly dose the physical load, and their skill in applying a variety of teaching methods - proves to be the decisive factor determining the overall quality of the educational process.

Third, the systematic character of exercise application, combined with a rational alternation of load and rest, was found to be essential for preventing overload while simultaneously ensuring a stable positive dynamic in the development of physical qualities. Fourth, the emotional and motivational component of the lessons, achieved primarily through game-based and competitive forms of exercise organization, significantly increases learners' interest in and commitment to systematic physical activity.

At the same time, the analysis revealed a number of persisting problems in pedagogical practice, including an insufficient methodological preparation of certain teachers regarding modern approaches to exercise classification and dosage, an inadequate material and technical base in a number of educational institutions, and an underuse of individualized approaches to physical loading. Overcoming these problems requires the systematic professional development of teaching staff, the modernization of sports facilities and equipment, and the wider dissemination of advanced pedagogical experience, both national and international.

The results obtained confirm that a scientifically grounded, systematic, and individually oriented application of physical exercises not only strengthens the physical health of learners but also exerts a considerable positive influence on their overall pedagogical development, including cognitive activity, attentiveness, and the formation of positive social skills. This confirms the necessity of regarding physical exercise not as an isolated activity but as an integral component of the holistic pedagogical process.

Taken together, these findings suggest that the theory of physical exercise should not be treated as a static body of knowledge, but as a continuously developing field that must respond to changing social conditions, new scientific data on human physiology, and evolving educational technologies. The comparative material examined in the previous section shows that no single national model of physical education can be regarded as universally optimal; rather, the most promising direction lies in the thoughtful synthesis of proven traditional methods with carefully selected elements of international experience, always filtered through the lens of the concrete pedagogical conditions, resources, and cultural context of a given educational institution.

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Conclusion

Summarizing the conducted research, it can be concluded that physical exercises constitute the main and irreplaceable means of physical education, combining pedagogical purposefulness with a well-defined physiological effect on the human organism. The scientifically grounded classification, correct selection, and adequate dosage of physical exercises, together with the skillful application of practical, visual, and verbal teaching methods, form the necessary methodological basis for the effective organization of the physical education process at all levels of the educational system.

On the basis of the results obtained, the following practical recommendations may be proposed: to strictly adapt the selection of physical exercises to the age-related and individual physiological characteristics of learners; to organize physical education classes in an emotionally attractive, game-based form, particularly at the earlier stages of education; to systematically integrate health-improving technologies into the daily educational routine; to regularly enhance the professional qualification of physical education teachers and coaches; to modernize the material and technical base of educational institutions in accordance with contemporary requirements; and to actively incorporate elements of national movement games into the content of physical education lessons, thereby combining the valuable national pedagogical heritage with modern scientific approaches.

Further development of this direction of research may be associated with the elaboration of more detailed, age-differentiated methodological programs for the application of physical exercises, as well as with the empirical verification of the proposed recommendations within the practical conditions of educational institutions of various types.

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