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ADAPTIVE SPORT LIKE FITNESS TECHNOLOGY

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Abstract. *This article explores the pressing issue of inclusive education in the context of physical education for children with disabilities, with a particular focus on the implementation of adaptive badminton as a means of physical rehabilitation, social integration, and personal development. Adaptive badminton is presented as an effective fitness technology that enables children with musculoskeletal, visual, auditory, and other impairments to actively participate in physical education, promoting the development of motor skills, enhancing functional capabilities, and fostering motivation for self-realization.*

The purpose of the study. To study the status and possibilities of using adaptive badminton (parabadminton) in the process of physical education of children with disabilities.

Research methods. The study used general scientific methods: analysis, synthesis, generalization, classification of facts of scientific literature, questionnaires, methods of mathematical statistics.

Based on a survey of physical education teachers from various regions of Ukraine, the study analyzes the accessibility of sports infrastructure, the availability of adaptive tools for students with disabilities, and teachers' awareness of the specific requirements for organizing inclusive physical education. The findings reveal that only one-third of respondents conduct classes with children with disabilities, and over 70% of educational institutions lack adequate conditions for implementing inclusive physical education. Special attention is given to the possibilities of adaptive badminton for different categories of students, including those who use wheelchairs, crutches, or have short stature.

Keywords: *inclusive education; physical education; adaptive badminton; children with disabilities; social adaptation; rehabilitation; pedagogy; accessibility; tolerance; inclusive environment.*

Introduction. The integration of children with disabilities into the educational space is a global process that covers most of the developed countries of the world. Modern approaches to the organization of education for this category of children are due to a number of factors that can be interpreted as a social order of society and the state, which have reached a certain level of economic, legal and cultural development. Educational integration is a natural stage in the evolution of the special education system, which is accompanied by a rethinking of the social and state attitude towards persons with disabilities, as well as the recognition of their rights to equal opportunities in all spheres of life, in particular in education [3].

The perception of the birth of a child with physical or intellectual disabilities varies depending on cultural, historical and geographical contexts. Even within the same society, this event can take on different meanings, shaped by subcultural perceptions, social stereotypes and value orientations [3].

According to J. Newman [4], the attitude towards persons with disabilities and the corresponding social policy are the result of historical transformations. The researcher emphasizes that these processes are formed under the influence of the philosophical concepts of utilitarianism, humanism and human rights, which are an integral part of Western culture and continue to determine its political and moral principles [4, p. 5].

Inclusion in the educational context is seen as a practice or policy aimed at ensuring equal access to educational opportunities and resources for individuals who may be excluded or marginalized. Thus, inclusion involves creating conditions under which every individual, regardless of their characteristics, has the opportunity to participate in joint activities on an equal basis.

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Presentation of the main material. As of today, Ukraine has seen positive dynamics in the perception of the idea of inclusive education: a significant part of parents demonstrate readiness to include children with disabilities in the general education space. However, as evidenced by the results of the study by O. Yu. Pastorova [1], the attitude of students with typical development towards individuals with special educational needs changes with

age in the direction of a decrease in the level of empathy and acceptance. This indicates a gradual assimilation by schoolchildren of the social division into "disabled" and "non-disabled", despite educational measures aimed at the formation of tolerance, in particular, conducting "kindness lessons" and broadcasting social videos [1, pp. 43–44].

This state of affairs, in our opinion, is a consequence of the long-term isolation of children with disabilities from the general social environment, which was historically consolidated through the functioning of specialized state institutions. The traditional education system is focused mainly on children without developmental disorders, and involves the activities of general education institutions and teachers without special training. In contrast, special education is adapted to the needs of children with disabilities, and includes specialized methods and infrastructure. The integrated education model involves the gradual adaptation of the child to the general education environment, while inclusive education transforms the education system itself in accordance with the needs of each student. The implementation of the inclusive model can be carried out through various forms: full-time education, homeschooling, and distance learning technologies.

Modern approaches provide that children with disabilities have the right to receive education in general education institutions, where they can not only receive quality knowledge, but also adapt to the social environment, realize the needs for emotional and physical development. At the same time, practice shows the presence of a number of problems associated with the implementation of inclusive education in mainstream schools. In particular, this concerns not only methodological aspects, but also insufficient training of pedagogical staff, who should provide corrective, psychological and educational support for students with special educational needs [5].

Specifics of adaptive badminton classes. Adaptive badminton classes for students with disabilities involve the use of specialized sports equipment that takes into account the individual functional capabilities of the players. Modern technologies in the field of sports open up new opportunities for the participation of people with severe musculoskeletal disorders in sports competitions that were previously considered inaccessible to them. Improved equipment not only contributes to increasing the level of sportsmanship, but also provides additional safety for participants [6].

During the game, students can use assistive devices, including crutches, which allow them to maintain an upright position without

external support. Typically, one crutch is used, held in the hand that is not used to hit the shuttlecock. The choice of the type of crutches - axillary or elbow - depends on the individual physical capabilities of the player and his needs. The use of crutches requires the active participation of the upper limbs and shoulder girdle, which ensures stability and balance during the game [2].

Players who use wheelchairs have limited maneuvering capabilities, which affects the dynamics of the game. To better understand the specifics of the motor activity of such students, teachers are recommended to independently try to perform game actions in a sitting position - in a chair or wheelchair. Such experience allows you to better understand the difficulties that students face and adapt teaching methods to their needs.

Students with short stature (in particular, with somatotrophic deficiency) also face a number of challenges. Due to their smaller height and shorter limbs, they need to make more movements around the court to reach the shuttlecock, which makes it difficult to participate equally in the game. To empathize with these difficulties, it is advisable for the teacher to conduct a game session on a volleyball court, simulating conditions close to those in which short players are [2].

Conclusions. Within the framework of the social protection system for people with disabilities, measures aimed at physical rehabilitation and social adaptation demonstrate particular effectiveness. One of such means is adaptive badminton, which in the context of inclusive education acts not only as a form of physical activity, but also as a tool for personality development, integration into the social environment and the formation of vital competencies.

Adaptive badminton classes contribute to the development of basic physical qualities, increase the functional capabilities of the body, preserve and activate the existing motor potential, as well as the formation of special knowledge necessary for self-realization in conditions of disability. In addition to the physical impact, inclusive physical education lessons based on badminton have a significant psychosocial effect: they form motivation in children with disabilities to overcome physical and psychological barriers, contribute to the awareness of their own role in society, reduce the level of self-isolation and increase faith in their own abilities.

At the same time, the results of the study showed that most secondary education institutions in Ukraine lack proper conditions for conducting adaptive badminton classes. This applies to both the physical accessibility of sports infrastructure and the

awareness of teachers about the specifics of organizing classes for students with disabilities.

Inclusive physical education lessons have a positive impact not only on children with special educational needs, but also on their peers. For students without disabilities, participation in such classes contributes to the development of the emotional sphere, the formation of tolerant communication skills, overcoming egocentric attitudes, and the awareness of the importance of support and mutual assistance.

Thus, the introduction of adaptive badminton into the educational process requires teachers to have a high level of professional and personal readiness. The teacher must deeply understand the essence of the inclusive approach, have knowledge about the age, psychological and physiological characteristics of students with various forms of developmental disorders, and also ensure constructive pedagogical interaction between all participants in the educational process. Successful implementation of an inclusive model of physical education is possible only if there is systematic training of personnel to work in an innovative educational environment.

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