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The effect of sports games on the development of the physical qualities of preschool children

Bohdanovskiy Ihor

Institute of Healthcare, National University of Water and Environmental Engineering, Rivne, Ukraine

e-mail: bohdanovskiy.i.v@gmail.com

ORCID ID: 0009-0008-4325-5413

Abstract

The study is devoted to the search for effective and affordable means for the development of physical qualities of children of senior preschool age. The influence of various sports games on the development of speed, agility, endurance, flexibility and muscle strength is shown. It has been proven that sports games should be selected taking into account the anatomical and physiological characteristics of children of senior school age. The article presents the characteristics and structural elements of various sports games, taking into account the age of children. It has been confirmed that the activity of children in the minds of raptly changing conditions is to occupy the mind with sports games until the manifestation of a complex of psycho-physiological functions: sensorimotor reaction, reception and processing of information, kinesthetic, operative thought, respect, the process of establishing and perfecting dynamic stereotypes. A generalizing conclusion is made about the optimal use of sports games for the development of physical qualities in children of senior preschool age.

Key words: older preschool children, sports games, dynamic stereotype, physical qualities.

Introduction

Today, strengthening children's health is an urgent problem. One of the primary tasks is to raise children in the spirit of a responsible and conscious attitude to their own health, physical development and physical fitness. It is also obvious that the optimal level of motor activity, lifestyle, standard of living, environment and motivation play a significant role in the complex system of factors affecting health. It is in the preschool age that basic personality qualities, key social skills, respect for other people, commitment to democratic values, a healthy and safe lifestyle are formed [1].

The fundamental and urgent task of the modern community is to raise a generation of people who perfectly combine spiritual wealth, moral purity and physical perfection. The physical education of the younger generation acquires a special meaning. The promising tasks of improving physical education, which do not satisfy society, are expressed in resolutions and resolutions that indicate the importance of strengthening the health of the population, in the harmonious development of the personality, in preparing young people for work and protecting the Motherland, in increasing the importance of physiological culture and sports, their implementation of life [2].

It is important that every person from a young age is concerned about his physical development, has knowledge in the field of hygiene and first aid, and has a healthy and conscious lifestyle. The organization of such training and its constant improvement requires deep and comprehensive studies of the place and role of physiological culture and sports in the life of preschool children, because in these years the foundation of a person's personality is laid, attitudes and skills are created that are stably preserved throughout his life. During this period,

interest in physical culture and sports activities appears, physiological improvement takes place [3, 4].

Nowadays, the problem of improving the effectiveness of the educational process of preschool children is very important. It can be successfully implemented using various means, methods, methods and methods of physical training, instilling the necessary skills and abilities of independent physical exercises.

The pedagogical process should be built taking into account real psychophysical abilities and age characteristics, and the process of physical education itself should be built so that it is aimed at teaching motor processes, effectively contributes to the strengthening of health, harmonious physical development, develops the necessary motor qualities, has a positive effect on mental processes of children [5].

The educational and educational process of physical training should be carried out with appropriate motor density, dynamically, using optimal forms of organization of classes, using sports equipment and tools, technical means of training. Achieving the specified goal is possible with the right selection and combination of game and competitive methods [6, 7].

The full-fledged physical development of a preschooler is primarily the timely formation of motor skills and abilities, the development of interest in various types of movements available to the child, the education of positive, moral-willed traits. To develop interest in sports and the surrounding world through sports and physical exercises. After all, with the help of sports, the child gets the development of physical abilities and skills that he needs so much in life [8, 9, 10].

One of the most important stages in the physical education of preschool children is the following tasks [11]:

- formation of motor skills and abilities;
- further development of motor and physical qualities;

- instilling the skills of correct posture;
- hygiene skills;
- mastering special knowledge.

A positive solution to these problems is possible only with the comprehensive use of means of physical education: natural factors, hygienic measures, physical exercises. The selection of means of physical education for the development of motor skills should be carried out taking into account the general principles of physical education [12, 13].

In the preschool age, primary attention should be paid to the development of dexterity, speed, flexibility, balance, but one should not forget about the proportional development of strength and endurance.

Physical qualities are very different from each other, but each of them is necessary for the further growth of the child. Without them, there will be no results. Physical qualities must be trained and improved [12].

Physical qualities are especially important in the process of education. The need for them is determined by the gains of the result. With the help of physical qualities and education, strong-willed character, personal qualities, and strength of spirit are manifested [13].

Physical qualities are not developed immediately, it is a long and painstaking process. Driven by research and analysis to strengthen and increase muscle strength, speed, speed, endurance.

Problem of Research and Research Focus

The characteristics of the physical qualities of a child of older preschool age obligates the need to define their types, concepts and analyze the specifics of their development. One of the motor qualities of a person is speed. This is the ability to perform a variety of motor actions (physical exercises) in the minimum period of time for the given conditions. According to E. Vilchkovsky, the level of development of this quality is determined by the state of the musculoskeletal

system (the degree of development of muscle strength), strength, mobility, and the balance of the processes of excitation and inhibition of the central nervous system [14].

Performing movements at maximum speed largely depends on the development of strength, flexibility, dexterity, and endurance. Therefore, according to E. Vilchkovsky, the development of speed in preschoolers is related to the improvement and formation of the entire complex of motor qualities [14]. Taking into account the anatomical and physiological characteristics of children of older preschool age, special attention should be paid to the development of speed.

Speed is developed due to various means aimed at covering all muscle groups of children involved in performing movements, as well as improving the regulatory activity of the central nervous system.

Speed develops due to performing various types of movements with maximum dynamics. Therefore, for the development of this quality, it is necessary to select those movements that the children learned the day before. In such a learning sequence, children will focus not on the method, but on the speed of performing the motor action [15].

One of the important elements of speed is the intensity of a child's motor reaction, which develops gradually, reaching its maximum level in high school age. Considering this phenomenon in preschool age, the process of speed formation should not be forced. This is also explained by the imperfect development of the cardiovascular and respiratory systems of preschoolers.

Dexterity is the child's ability to perform movements in complex coordination conditions. Coordination complexity of motor actions is one of the main criteria of dexterity. The second criterion of dexterity is the accuracy of movements.

A significant part of the authors of the research on this problem put the speed formation of motor skills in direct dependence on the level of dexterity

development: the higher the level of dexterity development, the easier and faster this or that is formed habit. From a psychological point of view, dexterity depends on full-fledged own movements and surrounding circumstances, on the ability to quickly change one's activities. It is closely related to the speed and accuracy of complex motor reactions [16, 17].

The development of dexterity of movements in 6-year-old children is of primary importance for preparing them for school. Experts believe that one of the main directions of educational work with children is the formation of their ability to consciously perform the greatest physical work with the least expenditure of effort and in the shortest possible time, while acting at the same time. clearly and energetically [18, 19].

During preschool age, a child's coordination of voluntary movements improves significantly. Motor actions of preschoolers (in each subsequent age group) are increasingly clear and precise. At the end of the preschool period, subject to appropriate training, children master the ability to dose their muscular efforts, and the regulatory role of the cerebral cortex improves. Therefore, during this period, the necessary prerequisites for the optimal development of dexterity are created, which in turn ensures the improvement of children's coordination abilities in various types of motor actions.

According to scientists, the level of dexterity development in older preschoolers is directly dependent on the amount of skills and abilities developed. An increase in the number of movements and their variety has a positive effect on the functional capabilities of the child's motor apparatus. Therefore, the number of exercises for children in motor coordination increases the speed of learning any movements, increases the level of dexterity development.

Thus, the development of dexterity depends on the level of development of motor abilities and skills, that is, the motor readiness of children.

An effective means of developing dexterity in children is performing exercises with changed situations, with a quick response to sudden changes in circumstances and making a decision that is necessary in a specific motor action. In this case, mobile games and games of a sports nature have the greatest expediency, as a universal tool in the development of various aspects of dexterity [19].

The above-mentioned idea is emphasized by the statement of the outstanding scientist O. Konoch that the play activity of children in conditions of suddenly changed circumstances puts forward the appropriate conditions for the manifestation of a complex of psycho-physiological functions: sensorimotor reaction, reception and processing of information, kinesthetic perception, operational thinking, attention, the process of formation and improvement of dynamic stereotypes [1].

In this regard, it can be concluded that it is mobile games of a sports nature (in older groups) that are among the most effective and accessible means that stimulate the development of dexterity in older preschoolers.

Discussion

The musculoskeletal system of a person allows him to perform motor actions with a large amplitude. However, often due to insufficient elasticity of muscles, ligaments and tendons, it cannot fully realize these possibilities. At the same time, if a person does not have properly developed joint mobility, it will be difficult for him to master the technique of many motor actions. Mobility in the joints is denoted by the term flexibility [16, 17].

Researchers believe that the harmony of a person's physical development largely depends on the mobility of the joints and the elasticity of the musculoskeletal system [1, 2, 4, 6, 7]. In our opinion, this statement is quite fair. The optimal level of flexibility development ensures the necessary freedom of movement of the child not only in physical education classes, but also in

everyday life. Amplitude, accuracy and speed of preschoolers' movements are related to flexibility.

In this regard, we are sure that older preschool children have all the prerequisites for the successful development of flexibility. We believe that the morphological development of older preschoolers (high muscle elasticity, mobility of the spinal column) contributes to increasing the effectiveness of exercises for the development of flexibility. An indicator of flexibility is the maximum range of motion.

It is known that ossification of cartilaginous tissues occurs with age due to an increase in the mass of tendons (compared to muscles) and compaction of muscle tissue. The tonic resistance of muscles to the action of stretching forces also increases, which leads to deterioration of flexibility.

In order to optimally develop flexibility in older preschool children, physical exercises are used that help stretch the muscles and ligaments of the musculoskeletal system. They are performed with a large amplitude and give the maximum effect under the condition of their systematic application in various forms of physical education (complexes of morning gymnastics, physical culture minutes, physical culture classes, sports holidays, etc.). We believe that elastic movements (inclination and straightening of the trunk, semi-squats) and swinging movements of arms and legs from different starting positions will be the most effective here.

When performing these exercises, it is desirable to give children (taking into account their age and readiness) a certain target attitude: to touch the flags on the floor with a ball or sticks; without bending the legs at the knees; to swing the leg so to swing the leg so as to touch the toe of the outstretched hand, etc. This increases the activity of preschoolers of all age groups, stimulates them to more consciously reveal their motor abilities. An important role is played by the visual analyzer, which allows the child to see the amplitude of movements, control them more accurately and have a clear idea of the degree of achievement

of the set goal. generally developing exercises with such a task determine a greater amplitude of movements, so the effectiveness of their performance for the development of flexibility will be much higher.

It is known that stretching exercises are divided into active, passive and combined. Active exercises can be performed freely, with tension or swinging. They should be performed with and without weights. Passive exercises are performed smoothly, with attempts to reach the greatest amplitude in each subsequent approach. These exercises are effective at the initial stages of training, they help strengthen the joints and muscles, ligaments and tendons that surround them [2, 4].

Physical endurance is one of the important motor qualities of a person. This is the ability to overcome fatigue in the process of motor activity, the ability to counteract fatigue that occurs during muscle work of a given intensity [2, 4]. Endurance is also the ability of a person to perform dynamic work for a long time at the required level and intensity and as the ability to resist fatigue [5]. By endurance, scientists understand a person's ability to perform work for a long time without reducing its intensity [7].

The development of endurance in older preschoolers, unlike other motor qualities, requires a special approach, says Ukrainian researcher E. Vilchkovsky. This is due to a certain danger caused by the negative impact of heavy loads on the body of children aged 3-6 years. At this age, a certain part of energy resources is spent on the development of the child, and heavy physical exertion can have a negative impact on the child's body. The level of endurance is closely related to the working capacity of the child's body in both mental and physical work. Therefore, the development of endurance in preschool age, especially in older preschool age, creates certain prerequisites for preparing children for studying at school, successfully overcoming academic loads, less fatigue during classes, but with age, this discrepancy in indicators increases [14].

It has been proven that in children of 6 years it is advisable to develop endurance for work of moderate and variable intensity, and physical loads during the performance of motor actions should correspond to the anatomical and physiological features of the child's body, be varied in content and short-term. The development of general endurance contributes to the natural formation and increase of the working capacity of the preschoolers' body. In addition, the development of endurance occurs in connection with other physical qualities: speed, strength and agility. Therefore, in older preschool age, not pure endurance develops, but speed endurance or endurance in performing exercises of a strength nature. However, when the process of physical education is carried out in different organizational forms, it is difficult to differentiate endurance by types, especially since it affects the complex development of motor qualities.

Increasing the motor density of physical education classes, optimal dosage of exercises have a positive effect on the development of endurance in children of all age groups. The duration of pauses between performing the main movements during classes should be 30-40 seconds. after exercises of medium and low intensity (throwing objects at a target and at a distance, balance exercises, long jumps from a place, depth) and 1,5-2 minutes. After high-intensity exercises (high and long jumps from a run, climbing a gymnastic wall or rope, running in relay games, etc.). The intervals determined for children's rest allow you to start the next repetition of the exercise while preserving the positive changes in the body after the previous work.

Cyclic movements (walking, running, skiing, cycling, etc.), mobile games with elements of running, jumping, climbing contribute to the improvement of the functions of the cardiovascular and respiratory systems, increase physical performance and ensure the development of general endurance in the child.

In addition to the above-mentioned means, sports exercises have a significant effect on the development of general endurance: skiing, skating,

swimming, cycling, etc. These movements are performed at a moderate and steady pace, which fully corresponds to the capabilities of the child's body.

All these means of physical culture have a significant impact on improving the vegetative functions and systems of the child's body, increase his endurance to various muscular efforts and general working capacity.

Strength, like other motor qualities of a child, is a consequence of the manifestation of the functional properties of the neuromuscular apparatus under the influence of the external environment [18-20]. Strength is a child's ability to overcome external resistance or counteract it due to muscular efforts [6, 11]. The optimal level of strength development contributes to the harmony of the child's growing body. When performing various motor actions, strength enters into a relationship with other motor qualities: speed, dexterity, flexibility and endurance. It is known that in preschool age it is rather difficult to single out a «pure» manifestation of the quality of strength during various types of physical exercises (movements). In addition, preschoolers, especially younger age groups, do not always manage to realize their potential in strength by maximally mobilizing muscle efforts.

When developing strength in preschoolers, it is necessary to adhere to the following provisions: to achieve harmonious strengthening of all muscle groups of the child's musculoskeletal system and to form in him the ability to rationally use his strength in performing motor actions.

In preschool age, with the aim of comprehensive physical training of the child, pedagogical influence is directed at the formation of the main muscle groups. At the same time, the development of strength occurs due to the performance of exercises of a dynamic nature, which have a speed-strength orientation, with a limitation of static components. However, one should avoid great stress during physical exercises, prolonged static postures, one-sided loading, taking into account the rapid fatigue of the child's nervous and muscular systems.

Based on the anatomical and physiological features of the child's body, at this age, the influence should be mainly carried out on those muscle groups, the development of which is less stimulated in everyday life. They include: oblique muscles of the trunk, abdomen, upper limbs, back surface of the thigh.

Taking into account that under the condition of monotonous and long-term muscle activity, protective inhibition occurs in preschoolers, they need to diversify the content of the means and adhere to the optimal dosage of physical exertion (these requirements also apply to other motor qualities). As a result, for the development of muscle strength, it is advisable, taking into account the psyche of the child (quick fatigue is often caused by the monotony of the exercises performed), to use exercises that are of some interest to children.

When developing muscle strength in preschool children, it is necessary to pay special attention to increasing their motor activity during walks and physical education classes (increasing motor density), which is a necessary condition for the comprehensive development of all motor qualities in this age period.

Taking into account the above, the following can be determined: movement exercises of sports games contribute to the development of physical qualities of children of high school age. We believe that the natural and accessible development of such motor qualities as endurance, flexibility, dexterity is most important in older preschool age. These qualities of an older preschooler are leading (modal) in the development of a preschooler's personality.

Conclusions

The theoretical analysis of the problem of the development of physical qualities of older preschool children made it possible to come to the conclusion:

- it was established that the level of development of physical qualities largely determines the effectiveness of the formation of children's motor skills

(motor readiness), which, in turn, maximally influence the morphophysiological development of children, the formation of posture;

- it has been proven that the development of motor qualities in children is influenced by two factors: natural and age-related changes in the body (morphophysiological and functional changes) and the mode of motor activity, which includes the entire complex of organizational forms of physical education and its independent motor activity;

- there is a scientific opinion among scientists that the effectiveness of the development of physical qualities increases due to the performance of movements, physical exercises that are included in various forms of physical education, in particular games of a sports nature.

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