Use of non-standard sports equipment in physical education classes with preschool children

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Abstract

Objective of the study was to substantiate the effectiveness of the use of non-standard sports equipment - soft modules in the physical education of preschool children.

Methods and structure of the study. Children of 6-7 years old participated in the pedagogical experiment. 15 children - in the control group (CG), 15 children - in the experimental group (EG). The study took place on the basis of Municipal Autonomous Preschool Educational Institution No. 99, Tomsk. Both groups were engaged in physical education three times a week. Physical education of children from the CG was carried out in accordance with the current program "Childhood" by V.I. Loginova, T.I. Babaeva. The EG was trained according to the developed methodology using non-standard sports equipment - soft modules. The EG was engaged in physical education according to the developed methodology of physical education using non-standard sports equipment - soft modules, which were gymnastic mats of various sizes, tunnels, arches, cylinders, cubes, triangles, rectangles, rollers, beams made of foam rubber and placed in covers made of polymer fabrics.

Results and conclusions. The use of non-standard sports equipment in the physical education of preschool children had a positive impact on the formation of their motor skills and the development of physical qualities.

Keywords: *physical education, preschool children, non-standard sports equipment, development of physical qualities.*

Introduction. To date, the problem of preserving and strengthening the health of the younger generation remains the most important for the state and society. One of the tasks of teachers is to form in children a sustainable interest and desire to engage in physical education. In this regard, there is a need to diversify the organization of physical education classes in a preschool institution.

Scientific studies of a number of authors touch upon the issue of using new non-traditional forms, methods and means of physical education of preschoolers. So, for example, children with great interest attend classes in an unconventional form - karate, where, due to the variety of exercises, the progressive development of basic physical qualities takes place [1, 6]. The use of the circular method contributes to the formation of a stable interest and desire in children for physical education [2].

However, many preschool educational institutions do not use modern innovative health-saving technologies enough, do not use non-traditional methods of physical education in physical education classes, and do not introduce non-standard sports equipment into practice [7].

M.A. Geraskina and V.V. Bogdashkin (2015) believe that one of the factors hindering the solution of such tasks of physical education as the development of motor skills, skills, physical qualities, a positive attitude of children to physical activity is the insufficient material base in a preschool institution [3].

According to O.V. Semenova (2019), the effectiveness of the implementation of the tasks of physical education of preschoolers depends on the availability and variety of sports equipment. This makes it possible to significantly expand the range of motor skills and abilities of children, and also has a positive effect on the overall physical fitness of the child. The motor density of physical education increases and the optimal physical load on the body of a preschooler is provided [5].

Objective of the study was to substantiate the effectiveness of the use of non-standard sports equipment - soft modules in the physical education of preschool children.

Methods and structure of the study. The experiment took place on the basis of the kindergarten of a combined type No. 99 in Tomsk from September 2021 to April 2022. Two groups of children aged 6-7 years old took part in it - 15 people in the control group (CG) and 15 people in experimental group (EG). For the formation of the CG and the EG, a preliminary pedagogical testing was carried out in order to determine the homogeneity of the groups in terms of the level of physical fitness.

Both groups were engaged in joint motor activity 3 times a week. The duration of each session was 30 minutes. The physical education of the children of the CG was carried out in accordance with the current program "Childhood" by the authors V.I. Loginova and T.I. Babaeva [4]. The EG was engaged according to the developed methodology of physical education with the use of non-standard sports equipment - soft modules. The modules are gymnastic mats of various sizes, tunnels, arches, cylinders, cubes, triangles, rectangles, rollers, bars, made of foam rubber and placed in covers made of polymer fabric.

Results of the study and their discussion. Table 1 presents the diagnostics of the development of physical qualities in children of both groups. At the ascertaining stage of the pedagogical experiment, there were no statistically significant differences in terms of speed-strength qualities, coordination abilities, strength endurance and flexibility between the subjects from the EG and the CG.

In order to increase the level of physical fitness of preschool children, a methodology was introduced into physical education classes using non-standard sports equipment - soft modules. When conducting classes, this inventory was used in the structure of all parts of the lesson. In the preparatory part, when performing drill exercises, soft modules served as guidelines. They were also used during walking (stepping over, jumping over), running exercises (snake running, obstacle running, zigzag running) and general developmental exercises (jumping, climbing, climbing, climbing).

In the main part of the lesson, soft modules were used when mastering the technique of new or previously studied exercises. When teaching children the technique of the exercise of flexion, extension of the arms in the lying position, soft modules were used on the basis of the method of directed movement sensation, which contributed to the accelerated learning of the technique of the studied motor action. At the initial stage, children learned to hold a soft cube on their backs in a lying position, without bending. Further, when bending the arms in the lying position, they touched the cube with their chests. In exercises for the development of flexibility, the children performed inclinations to the cube (from a sitting or standing position). To increase the tilt amplitude, the module was moved away from the child or replaced with a smaller module. When teaching preschoolers the shuttle running technique, small colored cubes were used. During this exercise, the cubes were located behind the lines that the child needed to step in.

In addition to the group and frontal methods, the "circular training" method was used in the classroom, during which a group of children was divided into five stations (three to four people each). In the exercises of all stations, soft modules were used (jumping over a bar, crawling through a tunnel, holding a soft triangle on the head, stepping over structures of different heights, jumping on a gymnastic mat). Depending on the objectives of the lesson, the exercises varied.

In the final part of the lesson, the modules were used during outdoor games of low intensity. They were landmarks, obstacles and targets. Due to the fact that this inventory is soft, bright and safe, you can use different types of games. In order to develop creative

The results of testing the motor abilities of children from the CG and the EG

Tests	The value of the indicators before the pedagogical xperiment		The value of the indicators after the pedagogical experiment	
	CG $\overline{X} \pm \sigma$	EG $\overline{X} \pm \sigma$	CG $\overline{X} \pm \sigma$	EG $\overline{X} \pm \sigma$
Shuttle run 3×6 m, s	7,95±0,86	7,92±0,73	7,91±0,71	7,42±0,41*
Tilt forward from a sitting position, cm	6,3±1,4	6,1±1,3	6,9±1,3	7, 8±2, 6*
Flexion, extension of the arms in the lying position, the number of times	11,4±1,23	12,1±1,84	12, 5±1,93	14,86±2,86*
Maintaining static balance, s	23,7±0,38	25,1±0,43	27, 3±0,61	36,7±1,62*
Standing long jump, cm	119,7±1,1	118,2±1,1	126, 6±-1,5	136,1±2,1*

* - The value of a statistically significant difference between the indicators compared with the control group, $p<0.05$.

abilities, imagination, independence, children were asked to build an obstacle course at their discretion. To develop attention, the lessons included games related to the distribution of soft modules according to their characteristics (shape, color, size).

After the study, a diagnosis of the development of physical qualities of preschoolers was carried out. It can be seen in the table that in the experimental group, the results in the indicators evaluating the coordination and speed-strength abilities, as well as the strength endurance and flexibility of the subjects, increased statistically significantly. In the control group, there is also a positive trend in the manifestation of the assessed abilities, but no statistically significant differences were found during the study period.

C**onclusions.** The analysis of scientific and methodological literature showed that teachers use non-traditional methods, forms and means in their work in order to form a desire in children to engage in physical education. In addition, the success of the implementation of the tasks of physical education also depends on the availability and variety of sports equipment. Based on the results of the pedagogical experiment, it can be concluded that non-standard sports equipment is effective in the physical education of preschoolers and contributes to the progressive development of the basic physical qualities of children.

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