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EFFECTIVENESS OF INFLUENCE OF BOCCE ON IMPROVING THE MOBILE SKILLS OF CHILDREN WITH SPECIAL EDUCATIONAL NEEDS

According to the results of the analysis of scientific-methodical and special literature, it was established that with various types of nosologies, the motor sphere almost always suffers first of all, which has a negative impact, first of all, on the physical and then on the general psychophysical development of a child with special educational needs.

The developed Bocce training program for children with inclusion included theoretical, general physical, special, technical and tactical training, and competitions. During the event, safety techniques were observed, the integrity of the equipment was checked, and the technical condition of children's strollers was checked. During the preparation of the program, the emotional state of children, their moral and willpower qualities in the competitive and training process were taken into account.

As a result of conducting adaptive motor recreation, a conclusion can be drawn regarding the effectiveness of using the game of bocce to increase the motor abilities of children with inclusion. During the performance of regular physical exercises, the muscles of the shoulder girdle were significantly strengthened, physical strength, amplitude of movements and endurance, resistance to loads increased.

Keywords: *inclusion, people with special needs, bocce, training process, motor skills.*

Степанюк С., Лемешко О., Гараненко К. Ефективність впливу боччe на вдосконалення рухових навичок дітей з особливими освітніми потребами. *Відповідно до результатів аналізу науково-методичної та спеціальної літератури встановлено, при різних видах нозологій майже завжди страждає насамперед моторна сфера, що негативно відбивається перш за все на фізичному і надалі на загальному психофізичному розвитку дитини з особливими освітніми потребами.*

Розроблена програма тренування Боччі для дітей з інклюзією, включала в себе теоретичну, загальну фізичну, спеціальну, техніко-тактичну підготовку, змагання. Під час проведення дотримувалися техніки безпеки, цілісність інвентарю, перевірялася технічна справність візків дітей. Під час складання програми враховувався емоційний стан дітей, їх морально-вольові якості в змагальному та тренувальному процесі.

В результаті проведення адаптивної рухової рекреації можна зробити висновок щодо ефективності використання гри бочча для підвищення рухових здібностей дітей з інклюзією. Під час виконання регулярних фізичних вправ значно зміцнились м'язи плечового поясу, збільшилась фізична сила, амплітуда рухів і витривалість, стійкість до навантажень.

Ключові слова: *інклюзія, люди з особливими потребами, бочча, тренувальний процес, рухові здібності.*

Formulation of the problem. Currently, physical education and sports attract all categories of people, both healthy and those who need health promotion, physical and social rehabilitation and adaptation; provide for the formation of the foundations of the physical and spiritual culture of the individual, the increase of health resources, as a system of values that are actively and long-term implemented in a healthy way and lifestyle. The problem of increasing the role of physical education and sports, physical culture education is especially relevant recently in connection with the deterioration of health indicators and physical degradation of people. Every year, the number of children with health problems increases. Today, the educational system is not fully prepared to meet the individual needs of such children. Properly organized inclusive education will help prevent discrimination of children with special needs in their right to a dignified life, free development, will help them to be equal members of society.

Research in this direction consists in finding the most universal means and methods of physical education and sports that affect the physical development of children with special needs.

The purpose of a given **research** was to assess the effectiveness of bocce on improving the motor skills of children with special educational needs.

To achieve the goal, the following **research methods** were used: analysis of scientific and methodical and medical literature, data from Internet networks, testing, experiment, mathematical processing of research results, classification, systematization,

generalization.

Background of the research. As it is known, with various types of nosologies, the motor sphere almost always suffers first of all, which has a negative impact, first of all, on the physical and then on the general psychophysical development of a child with special educational needs [7]. This requires the development of a whole series of methodical works on the organization of inclusive physical education of such children. A number of authors studied the issues of philosophy, methodology and practical problems of organizing inclusive education in educational institutions (I. Turchyk, O. Shiyan, N. Mukan, L. Kozibroda) [8, 11]. Unfortunately, in the available literature, we could not find enough works devoted to the search for effective forms of inclusive physical education of children with special educational needs. This determined the relevance of the research.

Presentation of the main material of the study. Bocce is a developing sport for the most severe forms of cerebral palsy. Actively affects the physical development and condition of the players' bodies, their mood and national self-awareness. Regular practice of Bocce develops dexterity, reaction, endurance, coordination of movements, and eye sight [5]. It is accessible to people of all ages. Nowadays, it is one of the most popular games in the world: as a means of leisure, and as part of the so-called big sport. In some countries, Bocce is included in the school physical education curriculum [11]. Bocce is the most effective tool for those who need urgent rehabilitation measures, first of all, restoration of movement capabilities. The benefit of this game for children with cerebral palsy is primarily that their spine becomes more flexible [3]. Also, bocce helps to develop such children and teenagers: prudence and intelligence, concentration and accuracy, ability to think strategically. Bocce also develops motor skills, spatial thinking and accuracy of motor reactions. The method of classes is unique and universal for all types of rehabilitation: medical, physical, mental and social [2, 6].

We conducted a study to evaluate the effectiveness of using the Bocce game to improve the motor skills of children with inclusion. The study took place in the city of Oleshki, in CI KRC at children's boarding house with children from 12 to 18 years old with special educational needs, in the period from January to September 2022. A group of 10 people participated in the study. Motor tests were performed to assess the children's condition.

For the testing of the motor tests, the following was used:

1. Free throws.
2. Roll to the jack at a distance of 5 meters.
3. Breaking a blocked jack at a distance of 4 meters.
4. Exercise "Daisy" (kick 6 balls at different distances).
5. Exercise "Pendulum" (repelling a blocked jack).

Bocce lessons were held regularly for six months from January to September 3 times a week for two hours each lesson. To begin with, the children remembered the rules of the game, then lined up, warmed up, did physical training and began the training process, namely special and technical-tactical exercises. At the end of the lesson, a game was played: individual, pair or team. During the training of children with inclusion, they used: a stopwatch, balls, a ramp and a hand point.

Technical exercises included the following motor exercises:

1. Free throws. It is necessary to roll the ball into the penalty area in a square of 25*25 centimeters so that the ball does not touch the inner line (Fig. 1). Number of repetitions: 3 approaches with red balls, 3 with blue.



Fig.1. Free throws

2. Roll to the jack at a distance of 5 meters. It is necessary to roll the ball close to the jack or 2-3 centimeters from it (Fig. 2). Number of repetitions: 3 approaches with red balls, three approaches with blue balls.

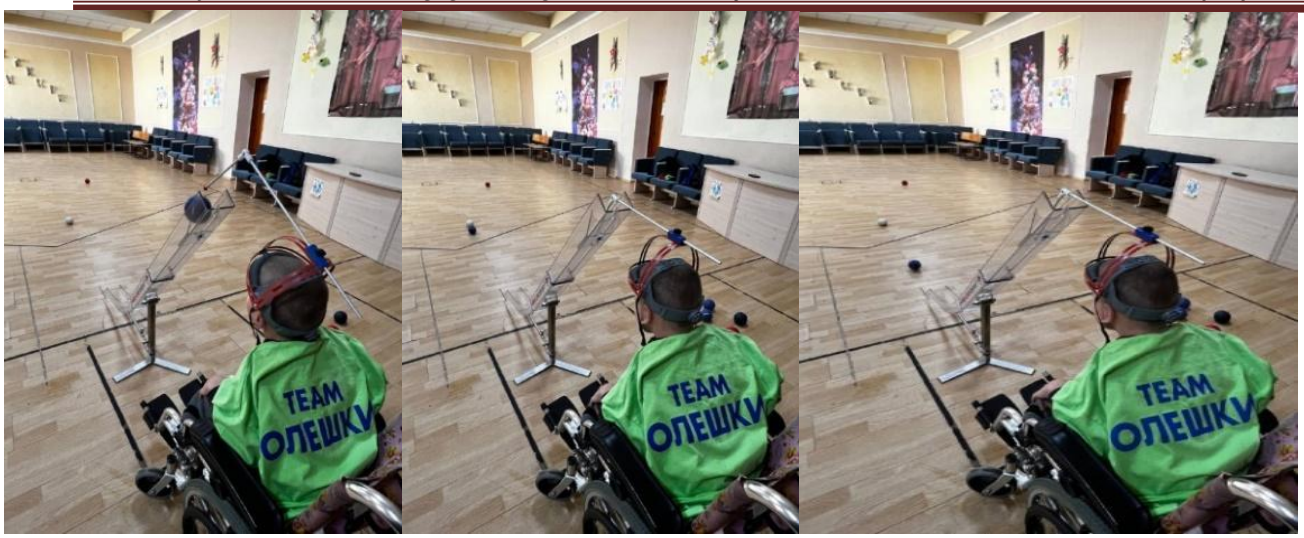


Fig.2. Hit the jack at a distance of 5 meters

3. Breaking a blocked jack at a distance of 4 meters. It is necessary to hit the ball that blocks the jack (to make a tackle to the jack with the next ball) (Fig. 3). Number of repetitions: 3 approaches with red balls, three approaches with blue balls.



Fig.3. Breaking a blocked jack

4. Exercise "Daisy". You need to roll 6 red balls to blue balls that are at different distances and in different directions of the court. A ramp is used for those children who cannot hold the ball in their hands (Fig. 4). The number of repetitions of the exercise: 3-4 times.

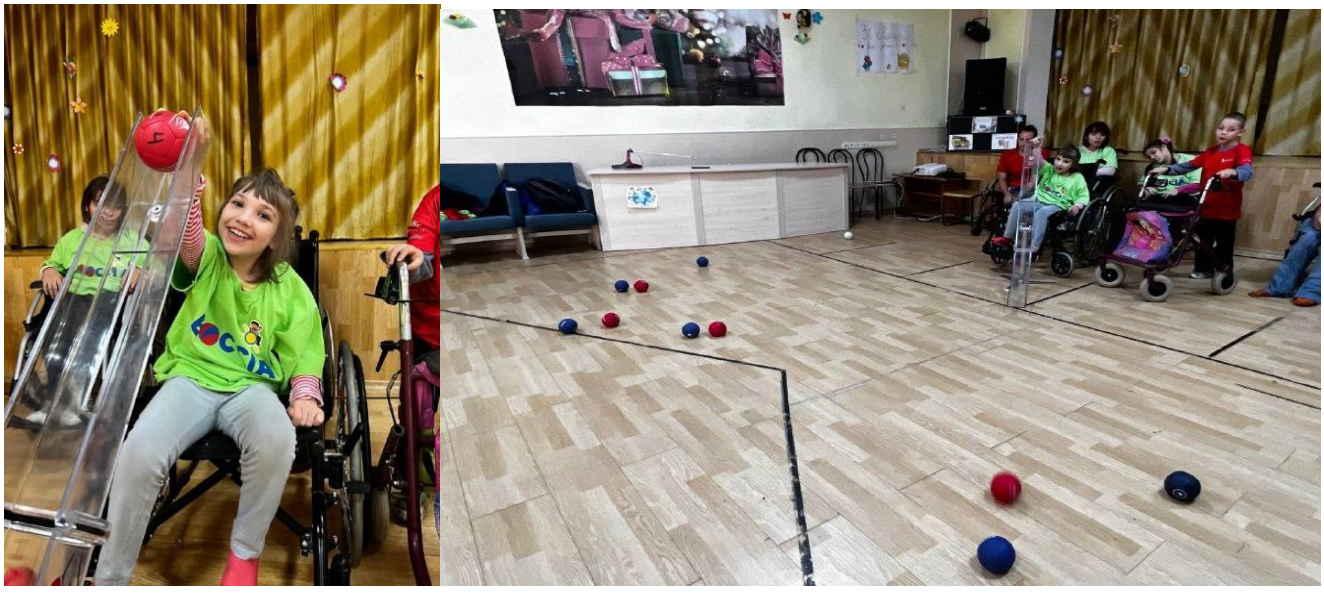


Fig.4. Exercise "Daisy"

5. "Pendulum" exercise. You need to throw the ball over the ball, which blocks the approach to the jack (Fig. 5). Number of repetitions: 3 approaches with red balls, three approaches with blue balls.

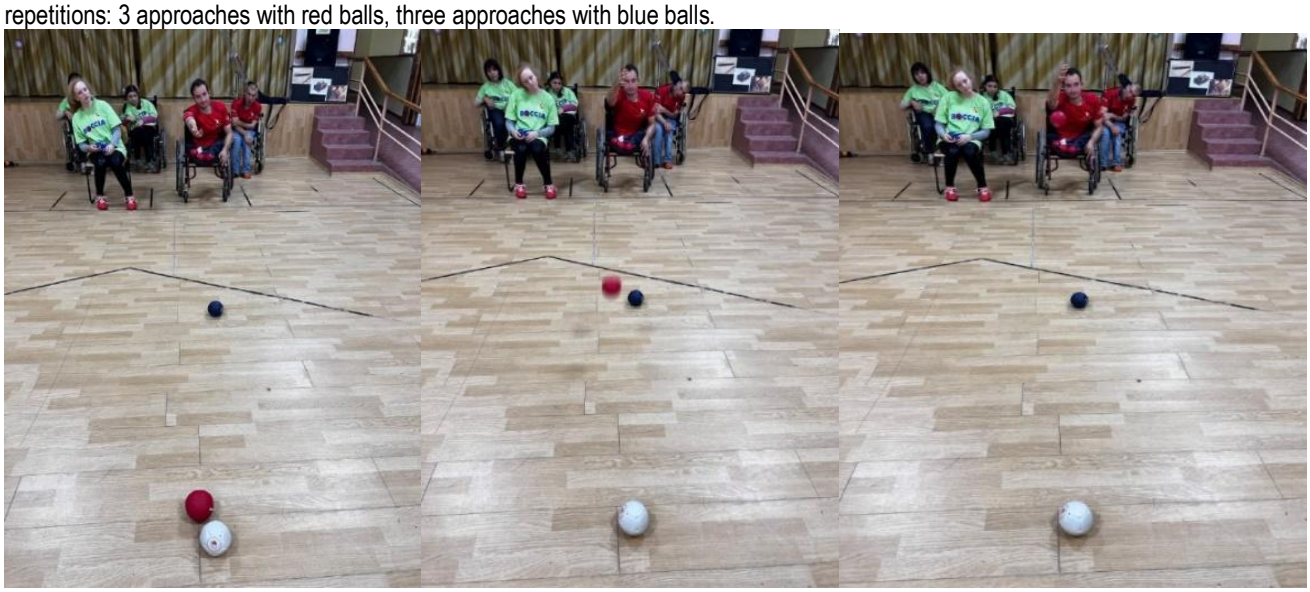


Fig.5. "Pendulum" exercise

It can be noted that at the beginning of the experiment, the selected group of children had low results in performing motor tests, and already at the beginning of September, the indicators improved significantly.

After obtaining the results, the mean square deviation and the estimate of this deviation were determined. For clarity, the results are listed in the table (Table 1).

Table 1

Pre- and post-study hit rates

	Free throws	Roll to the jack	Breaking a blocked jack	"Daisy"	"Pendulum"
Before	0,3	1	0,5	1,6	0,7
	0,48	0,81	0,7	0,69	0,94
	0,15	0,25	0,22	0,22	0,3
After	2	3	2,9	2,9	2,3
	0,81	1,05	0,87	0,73	0,94
	0,25	0,33	0,27	0,23	0,3

Comparing the results of the two tables, we can see that performance indicators of motor tests have improved significantly. In the first test, there were hits in the total amount of 0.3, and it became 2. The tricks to the jack were 1, then 3. In the blocked jack, the indicator was 0.5, then 2.9. In the "Daisy" and "Pendulum" exercises, at the beginning of the experiment it was equal to 1.6 and 1.7, after which these indicators increased to 2.9 and 2.3, respectively.

Analyzing the results, it was determined that the accuracy indicators increased after the experiment, namely: in the first motor test at the beginning it was equal to 0.15, at the end it was 0.25. In the second test, these indicators changed from 0.25 to 0.33. In the third test, these values were at the beginning 0.22, after 0.27. In the fourth test, the accuracy rate was 0.22 and became 0.23. In the last motor test, the indicators did not change.

As a result of conducting game types of adaptive motor recreation, it is possible to draw a conclusion about the effectiveness of using bocce game to increase the motor abilities of children with special needs. During the performance of regular physical exercises, the muscles of the shoulder girdle were significantly strengthened, physical strength, amplitude of movements and endurance, resistance to loads increased. And, most importantly, self-control and the level of socialization have improved, because it is precisely this that is a condition for the success of inclusive education

Results of the research. A bocce training program was developed for children with special needs, which was designed for six months and included theory, general physical training, special training, technical and tactical training, and competitions. During the classes, the main safety aspects of the game itself, the equipment, the premises, and the technical serviceability of the children's carts were checked. During the preparation of the program, the emotional state of children, their moral and willpower qualities in the competitive and training process were taken into account. Most of all, attention was paid to psychological stability and endurance, which are the main components in achieving a positive result.

As a result of the conducted research, the most effective exercises for assessing and developing motor skills of children with

special needs were selected and applied. The value of these exercises is that they can be applied to children with different levels of self-control and self-regulation, regardless of the level of physical development. In addition, regardless of accessibility, these exercises contribute to the development of regulatory activity and socialization of children – two aspects of development that strengthen and complement each other.

Conclusions/ discussion. Bocce is a game of skill and strategy. The object is for one team to get as many of their balls closer to the pallina (the smallest ball) than the opposing team's closest ball. Bocce as a Special Olympics sport provides people with special needs the opportunity to have social contact, develop physically and to gain self-confidence. Next to soccer and golf, bocce is the third most participated sport in the world [1, 9].

It is worth emphasizing that bocce in this case is not just a sport, or a useful exercise for the development of various skills, bocce is one of the few games that is completely accessible and suitable for children in strollers, namely the game activity is the most important for childhood, and therefore, it is considered the most effective for solving various tasks [4, 10]. In addition, improving their game skills, children get the opportunity to participate in competitions, including with ordinary children, adults and not only, which is an additional tool of inclusive education and motivation for socialization.

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ВІЙСЬКОВО-ІСТОРИЧНА РЕКОНСТРУКЦІЯ ЯК ЗАСІБ ПАТРІОТИЧНОГО ФІЗИЧНОГО ВИХОВАННЯ

Патріотичне виховання є однією з найважливіших складових процесу формування особистості. У часи війни його значення відчутно зростає. Патріотичне фізичне виховання може приймати різні форми і має бути спрямоване на виховання здорових, всебічно розвинених людей, які усвідомлюють свою національну ідентичність та важливість фізичної активності. Мета дослідження – встановити можливості застосування військово-історичної реконструкції в якості засобу патріотичного фізичного виховання молоді. Військово-історична реконструкція має низку переваг як засіб фізичного