

Teaching parents of children with disabilities exercises in adaptive physical culture

UDC 796.011.3



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Abstract

Objective of the study was to experimentally substantiate the methodology for teaching parents of children with disabilities to adaptive physical education exercises.

Methods and structure of the study. The scientific work was carried out on the basis of the rehabilitation center LLC Center for Rehabilitation and Adaptive Physical Education "Together with mom" (Moscow) in the period from August 2020 to February 2021. The methodology of teaching parents contained the following means and methods of APC: correctional-directed exercises (Adaptive physical culture) APC; correctional and developmental mobile game; joint gymnastics; short seminars with parents; remote feedback method between parents and APC instructor.

Results and conclusions. A modified method of teaching parents, children with disabilities, exercises of adaptive physical culture, has shown its effectiveness during the rehabilitation course for children. This achievement is due to the use of combining the theoretical part with the practical, as well as the possibility of establishing high-quality feedback between the instructor and parents during training.

Keywords: *adaptive physical culture, children with disabilities, rehabilitation, physical rehabilitation.*

Introduction. The problem of rehabilitation treatment of children with disabilities takes place in the modern world, even despite the high degree of development and technological effectiveness of the rehabilitation process [3].

For children with disabilities, the family plays an important role in the restoration and formation of motor adaptation. The child spends all the remaining time from one rehabilitation course to another while at home.

This fact made it possible to identify the existing contradiction between the objective need for the implementation of the methodology for teaching parents the exercises of adaptive physical culture (APC) and the lack of scientific and methodological support for their content, the growing need to improve the process of rehabilitation of children with disabilities (limited health opportunities).

Objective of the study was to experimentally substantiate the methodology for teaching parents of children with disabilities to adaptive physical education exercises.

Methods and structure of the study. The scientific work was carried out on the basis of the rehabilitation center LLC "Center for Rehabilitation and Adaptive Physical Education "Together with Mom" (Moscow) from August 2020 to February 2021. An experimental group of parents and their children with disabilities was formed, which was differentiated into two subgroups, according to the functional capabilities of children. 16 parents and 16 children with disabilities took part in the pedagogical experiment. The first experimental group of parents and children with disabilities consisted of six parents and children who were determined in accordance with the diagnosis and the level of functional abili-



ties of children - functionally moving in a seated support. The second experimental group included 10 parents and children with disabilities, who were united on the basis of the diagnosis and the level of development of the motor sphere of children - functionally moving with support vertically.

The presented modified methodology pursues the main goal - improving and maintaining the rehabilitation potential of children with disabilities, by performing joint APC classes with parents, with feedback from an APC specialist who teaches the basics of APC.

Regardless of the correlation of the subjects to the subgroup, the duration of one lesson was 60 minutes, which was divided into 30 minutes - these are seminars, and the next 30 minutes - practical classes of APC for parents with children with disabilities. Classes were held twice a week, each experimental group had a schedule of days and times of visit. The definition of such a training schedule was drawn up taking into account the recommendations of specialists: a neurologist, a clinical neuropsychologist, a speech pathologist.

In total, the training course included eight sessions for each group, which were conducted at the time of the rehabilitation course for children with disabilities.

To control the implementation of APC exercises at home, an APC specialist was remotely in touch. This type of interaction involved the provision by parents to the APC instructor of video reporting material from joint APC home classes with children with disabilities.

The method of teaching parents contains the following means and methods of adaptive physical culture: corrective-directed APC exercises; correctional and developing outdoor game; articular gymnastics; short seminars with parents; remote feedback method between parents and APC instructor. Seminars with parents were held before practical joint classes with children with disabilities, which contributed to the implementation of the basis of didactics: the connection between theory and practice. For a better understanding and consolidation of the material being taught, parents were recommended to read methodological literature in addition to practice [1, 2, 4-6].

Having studied the clinical picture of the main diagnoses of children with disabilities, we have identified one of the problems of impaired functioning of

the musculoskeletal system, which manifests itself in the following: curvature of the spine, contractures in the joints that limit the range of motion, low muscle tone, synkinesis.

Joint gymnastics, proposed for further joint activities of parents with children, included the following exercises:

In the supine position: performing flexion-extension in the shoulder joint of the arm, straightened in the elbow joint; performing flexion-extension of the leg in the hip and knee joints; performing a cross movement of a straight arm and flexion-extension of the leg in the hip and knee joints, body lifts (a roller is placed under the knees).

In the supine position: performing flexion-extension of the arm in the elbow and shoulder joints; performing flexion-extension of the leg in the knee joint; extension of the back, with the rise of the chest from the surface; abduction and adduction of the leg bent at the knee.

During the training in articular gymnastics exercises, the safest and most comfortable ways to perform movement and fixation of the limb were also explained to parents.

Results of the study and their discussion.

The results of testing parents for knowledge of APC showed a positive trend in the development of theoretical material on the basic concepts of APC by the subjects, which was reflected in the comparison of the average values of the test results (the number of correct answers for each of the respondents), before training - 5.5 ± 1.0 and after training - 8.8 ± 0.7 .

In two experimental groups of the studied children with disabilities, the development of the functional state of the child's body and motor skills improved from the moment of the first day of the rehabilitation process until the 30th day of rehabilitation.

The percentage of the results of measurements in children with disabilities of the experimental group 1 on the 30th day of rehabilitation relative to the 1st day is presented as follows: sitting without support (s) - the average values of this exercise increased by 53%; plank through the ball on straight arms (c) - the average values of holding this body position increased by 29%; push-ups from a fitball with fixation of the pelvis (number) - the number of repetitions in compliance with the technical features increased by 60%; transition from a lying position to a sitting position (s) - the speed of this motor action performance improved by 3%.



The percentage of the results of measurements in children with disabilities of the experimental group 2 on the 30th day of rehabilitation relative to the 1st day is presented as follows: getting up from a chair without support (s) - the speed of this exercise improved by 20%; walking 5 minutes with support - the distance of the path in 5 minutes increased by 62%; standing facing the wall - 40% increase in the time of holding a static position; keeping oneself on an unstable support - the time for performing this exercise increased by 93%; walking for 5 minutes with support through obstacles - the distance of the path in 5 minutes increased by 42%.

To assess the assimilation and use by parents of the trained APC exercises at home, according to the method modified by us, the measurement indicators of the 30th day of homework were compared with the 30th day of the rehabilitation course. The difference in the average values of indicators is presented as a percentage. The percentage of the results of measurements in children with disabilities in the experimental group 1 on the 30th day of homework relative to the 30th day of the rehabilitation course are presented as follows: sitting without support (s) - holding this position in time increased by 13%; plank through the ball on straight arms (s) - the time of holding the position increased by 13%; push-ups from a fitball with fixation of the pelvis (number) - the number of repetitions of this exercise increased by 19%; transition from a lying position to a sitting position (s) - the speed of performing this action improved by 8%.

The percentage of the results of measurements in children with disabilities of the experimental group 2 on the 30th day of homework relative to the 30th day of the rehabilitation course are presented as follows: getting up from a chair without support (s) - the speed of this exercise improved by 15%; walking 5 minutes with support - the distance of the path for 5 minutes increased by 7%; standing facing the wall - the time of holding the position increased by 11%; holding yourself on an unstable support - the time of holding the position increased by 42%; walking 5 minutes with support through obstacles - the distance of the path for 5 minutes increased by 6%;

Despite the small dynamics of the percentage of functional testing indicators from the 30th day of APC homework relative to the 30th day of the rehabilitation course, the motor sphere of children with disabilities develops and maintains the achieved

result of the functional state at the time of physical rehabilitation.

After completing training in APC exercises at the time of the rehabilitation course, parents worked APC with children at home, based on previously completed training.

To control the applied knowledge in home APC lessons, obtained in the classroom during rehabilitation and training, parents sent a preliminary video report via Whatsapp remote connection on the exercise, after which a consultation was held by an APC specialist on the implementation of APC classes, the dynamics of the functional state of the child.

Theoretical and practical recommendations on APC lessons have been developed to provide parents and track the dynamics of the motor development of children with disabilities.

Exercises for each experimental group of trainees were outlined, and additional video material was filmed with training in the phased implementation of certain motor actions. The information served as methodological recommendations for parents, as well as the basis for tracking the dynamics of the motor development of children with disabilities.

Conclusions. The modified method of teaching the parents of children with disabilities to the exercises of adaptive physical culture has shown its effectiveness during the rehabilitation course by the children. This achievement is due to the use of combining the theoretical part with the practical, as well as the possibility of establishing high-quality feedback between the instructor and parents during training.

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