

# **Proceedings of International Congress on “Multidisciplinary Studies in Education and Applied Sciences”**

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## **EFFECTIVENESS OF HYDROKINESIOTHERAPY IN THE REHABILITATION OF CHILDREN WITH SPASTIC CEREBRAL PALSY**

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### **Annotation**

The paper compares the effectiveness of methods of therapeutic gymnastics in water: author's and generally accepted. The substantiation and content of the developed methodology is presented, which provides for the gradual formation of motor skills that correspond to the process of developing the motor skills of a healthy child. A feature of the technique is the use of physical exercises mainly to suppress tonic muscle reactions and the formation of elements of installation reflexes, as well as the improvement of the psycho-emotional state due to game therapy.

**Keywords:** hydro kinesiotherapy treatment, methodology, healthy child.

### **Purpose**

To study the possibilities of developing movements in children with damage to the central locomotor system using hydrokinesiotherapy treatment.

Materials and methods: the results of hydrokinesiotherapy treatment of 24 children with spastic cerebral palsy aged 3 to 18 years were used in the study. During the hydrokinesiotherapy sessions, the regularity of the patients' breathing in the water (the number of inhalations and exhalations), the duration of speaking in different positions in the water, and the regularity of psychomotor movements on land were analyzed. The training duration is 30-40 minutes, 2-3 times a week, 24-72 on average. An important component of the physical rehabilitation of patients with cerebral palsy is hydrokinesitherapy.. 24 children took part in the experiment. The study lasted 1 year, hydrokinesitherapy classes were held 2 times a week. An analysis was made of the dynamics of the main motor functions, muscle tone, muscle strength, mobility of the joints of the lower extremities, social and emotional state and gaming activity. Based on the results obtained, the proposed method of hydrokinesitherapy in the system of physical rehabilitation of

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children aged 3-5 years with spastic cerebral palsy is effective, which allows it to be recommended for use in medical institutions.

Results: After the hydrokinesiotherapy treatment, the physical condition of the patients and the precision of the movements increased based on the treatment carried out in water. Children's sitting, their movements with their legs and hands, their head and neck posture have also changed for the better, their daily life activities have improved, their motivation has increased, and they have noted that the level of new social relationships has increased. The systematic conduct of classes has hardening and training effects, and also contributes to the rapid restoration of the functions of the motor apparatus [8, 18], develops the volitional qualities of the individual, and is a psychological incentive for further rehabilitation. Given the effectiveness and availability of the method, hydrokinesitherapy is widely used in the rehabilitation of patients with cerebral palsy. Known methods of hydrokinesitherapy have been introduced into the practice of rehabilitation of cerebral palsy, but they are designed for young children and pursue such goals as reducing muscle tone, increasing the range of motion in the joints, improving coordination movements, as well as teaching the child swimming skills. To date, there are no methodological developments on hydrokinesitherapy in order to gradually form motor skills in the complex of physical rehabilitation for cerebral palsy.

Conclusion: thus, according to the preliminary results, hydrokinesiotherapy lays the foundation for the development of an effective innovative method of treatment in the rehabilitation of children with BMF.

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