

EVALUATION OF THE INFLUENCE OF CORRECTIVE EXERCISES CONDUCTED IN WATER ON LUNG CAPACITY AND THE CORRECTION OF LATERAL SPINAL CURVATURE

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Summary

The dysfunctions of respiratory function and distortions of children's motion system still cause difficulties as far as the treatment is concerned. The aim of the paper was to evaluate the influence of corrective exercises conducted in water on lung capacity and the correction of a lateral spinal curvature. One hundred children with lateral spinal curvatures were examined. The group consisted of 56 girls and 44 boys aged 6 to 12 years. Children were divided into two groups. Fifty children (group I) took part in corrective exercises in water and the other group of fifty children (group II) did not participate in the activities. The program of corrective exercises in water focused on improvement of their respiratory function, the elimination of abnormal changes of spinal curvature and on strengthening the weakened muscle power. Corrective activities were conducted by means of the trunk's asymmetric mobilization in symmetric initial positions and had an individual character. Special attention was paid to respiratory exercises. 45-minute corrective exercises were conducted in small groups of 6 to 8 children twice a week. Within 18 months the total of 144 hours of corrective activities were conducted.

The examination included: children's weight, height, lung capacity, and trilobated alterations of curvatures in certain sections of the spinal column. Statistical analysis of the examination results was carried out. Corrective exercises conducted in water led to the increase in lung capacity, the decrease in or the regression of aberrations of lateral spinal curvatures in frontal plane, the restoration of physiological inclinations of backbone parts in the sagittal plane as well as derotations of thoracic and lumbar sections. Most children with lateral spinal curvature who did not participate in corrective activities in water did not manage to improve their respiratory function and the distortions of their motion system continued.