



The effect of combined exercise on cognitive and motor abilities of boys with Cerebral Palsy

Poster Presentation

1Parinaz Ghanati*; 2Sajjad Anoushiravani

1. Ph.D. Student of Motor Behavior, Faculty of Sports science, University of Tehran, Tehran, Iran
(parinazghanati90@gmail.com)

2Full Professor of Motor Behavior, Faculty of Theology and Islamic Studies, University of Tehran

Abstract

Introduction: The main goal of CP treatment is to improve the ability to walk or engage in other functional activities. This study was conducted to investigate the effect of combined exercise on motor and cognitive abilities of children with cerebral palsy.

Methods: This semi quasi-experimental study was carried out as pre-test with the control group. In this study, 20 children with cerebral palsy (4-12 years old) were selected from the referrals to occupational therapy centers of Urmia and randomly assigned to experimental (n= 10) and control (n= 10) groups. This study was conducted in 26 sessions, which consisted of a pre-test session, 24 sessions of practice, and one post-test session. The concurrent exercise training program included the implementation of a total of two strength and endurance training programs. At first, resistance training and then endurance training programs were implemented. To know the existence of differences between groups in pre-test and post-test, ANOVA was used for statistical analysis of covariance, and ANOVA was used to determine the intergroup changes in each stage. For meaningful determination, the significance level was considered to be 0.05. SPSS-23 was used for statistical analysis, and for the graphs, Excel-2015 was used.

Results: After the combined exercises, the scores of large movements improved, and significant improvement was observed in the evaluation of reaction time indices.

Conclusion: There are close interactions between motor and cognitive domains in people without natural development. Therefore, it is necessary to plan intervention programs based on the simultaneous participation of children and parents in order to promote an active lifestyle in people with paralysis.

Keywords

Combined Exercise; Cognitive; Motor Abilities; Cerebral Palsy

Reference:

1. Anabestani, M. (2014). Comparison of combined training with and without vascular occlusion on selected physical fitness components in postmenopausal women. *Sport Physiology*, 6(21), 123-136.
2. Armakolas N, Armakolas A, Antonopoulos A, Dimakakos A, Stathaki M, Koutsilieris M. (2016). The role of the IGF-I Ec in myoskeletal system and osteosarcoma pathophysiology. *Critical Reviews In Oncology/ Hematology*. 108:137-4.