عنوان مقاله:

The Effect of Low-Error and Full-Error Learning on Bimanual Coordination In Patients with High-Functioning Autism Disorder

نویسندگان:

بنیامین قلیچ پور - PhD Candidate of Motor Learning, Department of Sport Behavioral and Cognitive Sciences, School of Physical Education and Sport Sciences, Shahid Beheshti University, Tehran, Iran

بهروز عبدلی - Associate Professor, Department of Sport Behavioral and Cognitive Sciences, School of Physical Education and Sport Sciences, Shahid Beheshti University, Tehran, Iran

علیرضا فارسی - Associate Professor, Department of Sport Behavioral and Cognitive Sciences, School of Physical Education and Sport Sciences, Shahid Beheshti University, Tehran, Iran

راضیه جرجانی - General Practitioner, Gonbad Kavus Health Center, Gonbad Kavus, Iran

خلاصه مقاله:

Introduction: In many sports movements, and even regular movements, the simultaneous use of both hands results in the successful implementation of motor skills. Considering many problems faced by the patient with autism in learning skills, and their impact on social behaviors, the purpose of this study was to investigate the effect of low-error and full-error learning on bimanual coordination in patients with high-functioning autism disorder.Materials and Methods: This was a semi-experimental research with pretest-posttest design, and control group. ۲۴ children with high-functioning autism disorder, resulted from with the help of pretest Autism Spectrum Screening Questionnaire (SSRQ) were selected using convenience sampling method, and were homogeneously divided into three groups of low-error learning, full-error learning, and control. The dual coordination pretest was done with the help of the bimanual coordination instrument of the Omide Farda Institute (Tehran, Iran). Then, the training groups did practicing bimanual coordination skills on the same machine in six sessions of ۳۰ minutes. At the end of the sixth session, the posttest of bimanual coordination skills was performed in all groups. Two days later, a retention test was taken from the training groups. The results were analyzed using one way and repeated measures analysis of variance.Results: There were no significant differences between the groups in pretest (P = ۰.۶۴۳). While in posttest, a significant difference was observed between the practice and control group (P = ۰.۰۰۱). Moreover, there was a significant difference between low-error and full-error learning groups (P = ۰.۰۰۱). The retention test, which was performed after two days of rest, revealed a decrease in performance of full-error group.Conclusion: According to the results, it is concluded that these individuals are able to improve their bimanual coordination skills, and low-error learning is not only useful in learning, but also has more sustainability than full-error learning. Therefore, it is recommended to use a low-error learning method to teach bimanual coordination skills in patients with high-functioning autism disorder.

کلمات کلیدی:
Low error learning, Full-error learning, Bimanual coordination, Autism