

## عنوان مقاله:

Effect of Perceptual-Motor activities on the Mirror Neurons Training, Behavioral Disorders and Social development in Children with High Functioning Autism

## محل انتشار:

نشریه بین المللی یادگیری و کنترل حرکتی، دوره 1، شماره 2 (سال: 1398)

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## خلاصه مقاله:

Background: Autism spectrum disorders (ASD) are developmental conditions characterized by deficits in social interaction, motor performance, and obsessive/stereotyped patterns of behavior. Although there is no reliable neurophysiological marker associated with ASD, dysfunction of the parietal-frontal mirror neuron system has been suggested as a disturbance linked to the disorder. Objective: The purpose of this applied and basic study was to investigate the effect of perceptual-motor training on the mirror neuron activity, behavioral disorders, and social development in children with high function autism. Methods: The pretest-posttest randomized-group research design was used for this quasi-experimental research. Therefore, ۱۲ children with high function autism (۷-۱۱ years) were selected from a special school and then assigned into two groups (experimental and control). Social development, behavioral disorders, and mirror neurons activity were assessed at baseline (pre-intervention), week ۸ ( post-intervention). The experimental group received perceptual motor training three times per week for ۸ weeks). Data were analyzed by independent t-test, mixed ۲ ۲ ۲ ۳ ANOVA, mix ANOVA ۲ ۲ at the  $p < 0.05$  significance. Results: Results showed that perceptual motor training significantly reduced behavioral disorders ( $p < 0.05$ ), and increased social development in the experimental group ( $p < 0.05$ ). furthermore, there was a significant improvement in MNs activity in the experimental group compared with the control group. ( $p < 0.05$ ). Conclusion: These results can affect the improvement of autistic children and it emphasized the role of motor skills in autistic children school schedule.

## کلمات کلیدی:

Mu rhythm -autism spectrum disorder (ASD), Behavioral Disorders, Social Development, Physical Activity

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