Effect of sensory integration training on executive functions of children with attention deficit hyperactivity disorder

Salar Faramarzi, Shirin Arjmandi Rad, Ahmad Abedi

Neuropsychiatria i Neuropsychologia 2016
DOI: 10.5114/nan.2016.60388

Abstract

Aim of the study:
Sensory integration is the process by which information from our senses (touch, sight, hearing, taste, smell, as well as balance) is interpreted by the brain so that we can respond appropriately to our environment. Attention deficit hyperactivity disorder (ADHD) is a complex neurological condition that is characterized by developmentally inappropriate levels of inattention, hyperactivity, and impulsive behavior. The aim of the current research was to investigate the effect of sensory integration training on executive functions of children with attention deficit hyperactivity disorder.

Material and methods:
In order to conduct this study, 20 students with attention deficit hyperactivity disorder were randomly selected from the elementary school student population of Isfahan, Iran, using the random cluster sampling method, and they were assigned randomly to experimental and control groups (each group consisted of 10 students). The design was experimental, and sensory integration training was performed in the experimental group. The research instruments were Conner’s Rating Scale (teacher and parent forms) and Conner’s Neuropsychology Test. Data were analyzed by multivariate covariance analysis of variance.

Results:
The results indicated that sensory integration can improve executive functions of students with ADHD.

Conclusions:
Thus, it can be concluded that sensory integration training affects children’s executive functions. We suggest that this method can be used in rehabilitation and education of children with attention deficit hyperactivity disorder and it can be recommended to therapists and trainers.