A critical appraisal of the role of neuropsychological deficits in preschool ADHD.

Sjöwall D, Thorell LB.


Abstract

The present study aimed at improving our understanding of the role of neuropsychological deficits in preschool Attention Deficit Hyperactivity Disorder (ADHD). The study included 52 children in the ADHD group and 72 controls (age 4-6 years). Both laboratory measures and teacher reports of executive deficits (i.e., working memory, inhibition, and shifting), delay-related behaviors (i.e., the preference for minimizing delay), and emotional functions (i.e., emotion recognition and regulation) were included. Variable-oriented analyses were complemented with person-oriented analyses (i.e., identifying the proportion of patients considered impaired). Results showed that the ADHD group differed from controls with regard to all measures of executive functioning and most measures of delay-related behaviors, but few differences were found for emotional functioning. A substantial subgroup (23%) of children with ADHD did not have a neuropsychological deficit in any domain. There were subgroups with executive or delay-related deficits only, but no pure emotional subgroup. The overlap between different neuropsychological deficits was much larger when teacher reports were used as opposed to laboratory measures. Regarding functional impairments, large mean differences were found between the ADHD group and controls. However, neuropsychological deficits were not able to explain individual variations in daily life functioning among children with ADHD. In conclusion, the present study identified some important methodological and theoretical issues regarding the role of neuropsychological functioning in preschool ADHD.