The role of inattention and hyperactivity/impulsivity in the fine motor coordination in children with ADHD.

Fenollar-Cortés J, Gallego-Martínez A, Fuentes LJ.


Abstract

OBJECTIVE:
Deficits in fine motor coordination have been suggested to be associated with Attention-Deficit/Hyperactivity Disorder (ADHD). However, despite the negative impact of poor fine motor skills on academic achievement, researchers have paid little attention to this problem. The aim of this study was to explore the relationship between ADHD dimensions and fine motor performance.

METHOD:
Participants were 43 children with a diagnosis of ADHD aged between 7 and 14 years (M=9.61; 81% male) and 42 typically developing (TP) children in the same age range (M=10.76; 75.2% male).

RESULTS:
Children with ADHD performed worse than TP on all tasks (δFine_motor_tasks, -0.19 to -0.44). After controlling for age and ADHD-HY (hyperactivity/impulsivity), higher scores on ADHD-IN (inattentiveness) predicted a larger number of mistakes among all psychomotricity tasks and conditions (β 0.39-0.58, ps<0.05).

CONCLUSION:
The ADHD group showed poorer fine motor performance than controls across all fine motor coordination tasks. However, lower performance (more mistakes), was related to the inattention dimension but not to the hyperactivity/impulsivity dimensions. Authors recommend including training and enhancement of the fine motor skills for more comprehensive ADHD treatment.