The relationship between motor skills, ADHD symptoms, and childhood body weight.


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Abstract

BACKGROUND:
Research has suggested an important association between motor proficiency and overweight/obesity. Many children with motor difficulties experience ADHD symptoms which have also been linked with overweight/obesity. Previous research has not considered both ADHD and motor performance when investigating their relationship with overweight/obesity.

AIMS:
To investigate the relationships between motor performance, ADHD symptoms, and overweight/obesity in children.

METHODS AND PROCEDURES:
A cross-sectional study was conducted involving 189 children aged six to 10 years. Symptoms of ADHD were identified using the SNAP-IV rating scale. Motor impairment (MI) was identified using the Movement Battery Assessment for Children-2. Body composition was estimated from the Body Mass Index (BMI) based on World Health Organization child growth standards.

OUTCOMES AND RESULTS:
Balance was the only motor skill associated with BMI even after controlling for gender and ADHD. Group comparisons revealed that the proportion of overweight ADHD children was significantly less than the proportion of overweight control children and overweight MI children; the proportion of underweight ADHD children was significantly greater than the proportion of underweight MI children.

CONCLUSIONS AND IMPLICATIONS:
The results highlight the importance of taking into consideration both ADHD symptoms and motor difficulties in the assessment and intervention of physical health outcomes in children with ADHD and/or movement problems.