Health-related impairments in young children with ADHD: a community-based study


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Abstract

Background
We aimed to examine health-related impairments in young children with attention-deficit/hyperactivity disorder (ADHD) and non-ADHD controls and explore differences in children with ADHD by gender, ADHD subtype and mental health co-morbidity status.

Methods
Children with ADHD (n = 177) and controls (n = 212) aged 6–8 years were recruited across 43 schools in Melbourne, Australia following a screening (Conners 3 ADHD Index) and case confirmation procedure (Diagnostic Interview Schedule for Children IV). Direct and blinded assessments of height and weight were used to calculate body mass index z-score and to identify overweight/obesity. Parents reported on child global health, sleep problems and physical injuries. Unadjusted and adjusted (socio-demographic factors and co-morbidities) logistic and linear regression were conducted to compare health-related impairments between (1) children with and without ADHD; (2) boys and girls with ADHD; (3) children with ADHD-inattentive and ADHD-combined types; and (4) children with ADHD by internalizing and externalizing disorder status.

Results
Children with ADHD had poorer global health than controls when adjusted for socio-demographic characteristics (OR: 2.0; 95% CI 1.1, 3.9); however, this attenuated after adjusting for co-morbidities. In adjusted analyses, children with ADHD had increased odds of moderate/large sleep problems (OR: 3.1; 95% CI 1.4, 6.8), compared with controls. There were no differences between children with and without ADHD in terms of physical injuries or overweight/obesity. Findings were similar when excluding children taking ADHD medication, and health-related impairments did not differ between boys and girls with ADHD. Children with ADHD-combined type had higher BMI z-scores than controls in adjusted analyses (P = 0.04). Children with ADHD and co-occurring internalizing and externalizing co-morbidities were particularly vulnerable to health-related impairments.

Conclusion
Young children with ADHD experience a number of health-related impairments, which are exacerbated by the presence of internalizing and externalizing co-morbidities. Clinicians should consider the broader health of children with ADHD in clinical consultations.