

Children with Attention Deficit/Hyperactivity Disorder Have a Greater Likelihood of Comorbid Depression

Kirsten Sinagra & Patricia M. Kelshaw

Department of Kinesiology, Brain Research & Assessment Initiative of New Hampshire (BRAIN) Laboratory, University of New Hampshire, USA

Background: Attention-deficit/hyperactivity disorder (ADHD) is often a childhood-onset disorder that frequently co-exists with other disorders such as anxiety and depression. However, there is a gap in the research regarding rates of ADHD and co-existing mental health conditions middle school age children.

Purpose: Describe the proportions of children with a history of ADHD, with co-existing depression, anxiety, or other psychiatric disorder.

Methods: 2,096 middle school student-athletes from Virginia [ADHD: n=144 (6.9%); No-ADHD n=1,952 (93.1%); girls: n=847 (40.4%); boys: n=1,249 (59.6%)] completed pre-participation health questionnaires designed to document comorbidities. Students were asked to self-report any diagnosis of ADHD as well as depression, anxiety, or other psychiatric disorder. Proportions of children with ADHD who also self-reported a history of depression, anxiety, or other psychiatric disorder were compared to children without ADHD, and analyzed using a chi-square test. To characterize the magnitude of group differences, odds ratios (OR) with corresponding 95% confidence intervals (95% CI) were calculated.

Results: Children and adolescents with ADHD were more likely to also endorse having a psychiatric disorder than children without ADHD [$\chi^2(1)=50.31$, $P<0.05$; OR=6.07; 95% CI:3.46-10.63]. Girls with ADHD were significantly more likely to also endorse a psychiatric disorder than girls without ADHD [$\chi^2(1)=17.23$, $P<0.05$; OR = 5.47; 95% CI:2.24-13.37]; and boys with ADHD were more likely to endorse psychiatric disorder than boys without ADHD [$\chi^2(1)=45.84$, $P<0.05$; OR = 9.58; 95% CI:4.36-21.07].

Conclusions: Children with ADHD were 6 times more likely to report having a coexisting psychiatric disorder (including depression and anxiety) than children without ADHD. Girls were over 5 times more likely, and boys were nearly 10 times more likely to report having a coexisting psychiatric disorder than girls and boys without ADHD. Additional research is needed to address the intersection of ADHD and anxiety/depression as co-existing health conditions.