Do early internalizing and externalizing problems predict later irritability in adolescents with attention-deficit/hyperactivity disorder?

Mulraney M, Zendarski N, Mensah F, Hiscock H, Sciberras E.


Abstract

OBJECTIVE:
Irritable mood is common in children with attention-deficit/hyperactivity disorder. Research to date has primarily comprised cross-sectional studies; thus, little is known about the antecedents of irritability. Furthermore, existing cross-sectional studies generally focus on the association between irritability and comorbidities and do not examine broader aspects of functioning. Finally, previous research has neglected to include child-report of irritability. This study aimed to address these gaps using data from a longitudinal study of children with attention-deficit/hyperactivity disorder.

METHOD:
Children aged 5-13 years (mean = 10.2; standard deviation = 1.9) with attention-deficit/hyperactivity disorder were recruited from pediatric practices across Victoria, Australia. This study reports on those who had reached adolescence (12 years or older, mean = 13.8; standard deviation = 1.2) at the 3-year follow-up (n = 140). Internalizing and externalizing problems were measured using the Strengths and Difficulties Questionnaire. At follow-up, parent-reported and adolescent self-reported irritability was assessed using the Affective Reactivity Index. Parent and adolescent outcomes measured at follow-up included attention-deficit/hyperactivity disorder symptom severity, sleep, behavior and parent mental health.

RESULTS:
Children with externalizing problems at age 10 had higher parent-reported irritability ($\beta = 0.31$, 95% confidence interval = [0.17, 0.45], $p = 0.001$) in adolescence. Cross-sectional analyses found that irritability was associated with increased attention-deficit/hyperactivity disorder symptom severity and sleep problems; poorer emotional, behavioral and social functioning; and poorer parent mental health.

CONCLUSION:
Our findings highlight the importance of assessing for and managing early conduct problems in children with attention-deficit/hyperactivity disorder, as these predict ongoing irritability which, in turn, is associated with poorer functioning across a number of domains.