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Are Elevations in ADHD Symptoms Associated with Physiological Reactivity and Emotion Dysregulation in Children?

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Abstract

The present study examined whether children with elevated attention-deficit/hyperactivity disorder (ADHD) symptoms display a unique pattern of emotion dysregulation as indexed by both parent report and physiological reactivity during experiences of failure. A sample of 61 children (9 to 13 years; $M = 11.62$, $SD = 1.29$; 48 % male) with and without clinical elevations in ADHD symptoms participated. Parent and teacher report of ADHD and oppositional defiant disorder (ODD) symptoms and parent report of internalizing problems were collected. Parents also provided ratings of children's emotional negativity/lability and emotion regulation. Children's physiological reactivity, based on changes in respiratory sinus arrhythmia (RSA) and skin conductance level (SCL), were assessed while they completed a manipulated social rejection task and impossible puzzle task. Regression analyses indicated that ADHD symptoms were associated with higher parent-rated emotional negativity/lability and with blunted RSA withdrawal in response to social rejection; these effects were not accounted for by co-occurring ODD symptoms or internalizing problems. ODD symptoms also were uniquely associated with parent ratings of poor emotion

regulation. Internalizing problems were uniquely associated with emotional negativity/lability, poor emotion regulation, and increased SCL activity in response to social rejection. Results suggest that there may be a pattern of emotion dysregulation that is specific to ADHD symptomatology. The importance of contextual factors when examining physiological reactivity to stress in youth with ADHD is discussed.

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Ethics declarations

Conflict of Interest

The authors declare that they have no conflict of interest.

Ethical Approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent

Informed consent was obtained from all individual participants included in the study.

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