Sensitivity to Peer Feedback in Young Adolescents with Symptoms of ADHD: Examination of Neurophysiological and Self-Report Measures

Babinski DE, Kujawa A, Kessel EM, Arfer KB, Klein DN.


Abstract

Many youth with ADHD experience peer difficulties, but the mechanisms underlying this dysfunction remain unknown. Very little work has examined neurophysiological measures of social feedback processing in relation to ADHD symptoms. The goal of this study was to examine associations of ADHD symptoms with indicators of sensitivity to social feedback in a laboratory task and self-report of rejection sensitivity. A large community sample of 10- to 15-year-old adolescents (N = 391; Mage = 12.64, 48.6% girls) participated in the study. Mothers rated youth ADHD symptoms. Youth completed the Island Getaway task, which elicits neurophysiological (i.e., event-related potentials [ERP]) measures of sensitivity to peer rejection and acceptance feedback, and also completed self-ratings of rejection sensitivity. Greater ADHD symptoms were associated with an enhanced N1 ERP component, which correlated with higher levels of self-reported rejection sensitivity. In addition, greater ADHD symptoms were associated with reduced reactivity to social acceptance, as measured by the later reward positivity ERP component. Youth with elevated ADHD symptoms exhibited enhanced sensitivity to peer rejection at the neurophysiological and self-report level, as well as reduced neurophysiological reactivity to peer acceptance. Future work including neural measures of social functioning may serve to elucidate mechanisms underlying the social dysfunction characteristic of ADHD.