Can reactivity and regulation in infancy predict inattentive and hyperactive/impulsive behavior in 3-year-olds?

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Abstract

A need to identify early infant markers of later occurring inattentive and hyperactive/impulsive behaviors has come to the fore in the current attention-deficit/hyperactivity disorder literature. The purpose of such studies is to identify driving mechanisms that could enable early detection of attention-deficit/hyperactivity disorder liability and thus facilitate early intervention. Here we study independent and interactive effects of cognitive regulation (inhibition and sustained attention), temperament (reactive and regulatory aspects), and maternal sensitivity (as external regulation) in a sample of 112 typically developing 10-month-old infants (59 boys, 52.7%), in relation to inattentive and hyperactive/impulsive behavior at 3 years. The results showed that infant temperamental regulation and maternal sensitivity made independent contributions to both inattention and hyperactivity/impulsivity, in that higher levels of temperamental regulation and maternal sensitivity were related to less inattentive and hyperactive/impulsive behavior. In addition, the temperamental factor positive affectivity/surgency made a significant contribution to later hyperactivity/impulsivity, in that higher levels of positive affectivity/surgency were related to more hyperactive/impulsive behavior. No interaction effects were found. Our findings suggest temperament and parental regulation as potential and independent markers of later inattentive and hyperactive/impulsive behavior.