Maternal psychosocial stress and children's ADHD diagnosis: a prospective birth cohort study

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Abstract

OBJECTIVE:
Examine the association of mothers' psychosocial stressors before and during pregnancy with their children's diagnosis of attention deficit hyperactivity disorder (ADHD).

METHODS:
This study included 2140 mother-child pairs who had at least one postnatal pediatric visit at the Boston Medical Center between 2003 and 2015. Child ADHD was determined via International Classification of Diseases, Ninth Revision (ICD-9) codes documented in electronic medical records. Latent factors of maternal stress and social support and measures of the physical home environment and psychosocial adversities were constructed using exploratory factor analysis. The association between the latent factors and child ADHD diagnosis was examined using multiple logistic regression, controlling for known risk factors for ADHD.

RESULTS:
Children were 1.45 (95% CI: 1.06, 1.99) and 3.03 (95% CI: 2.19, 4.20) times more likely to receive an ADHD diagnosis if their mother experienced a major stressful event during pregnancy or reported a high level of perceived stress, respectively. The number of family adversities increases the risk of ADHD diagnosis [second quartile: OR = 1.90; CI (1.31, 2.77); third quartile: OR = 1.96 CI (1.34, 2.88); fourth quartile: OR = 2.89 CI (2.01, 4.16)] compared to first quartile.

CONCLUSIONS:
In this prospective, predominantly urban, low-income, minority birth cohort, mothers' psychosocial stress before and during pregnancy appears to be an independent risk factor for the development of ADHD in their children.