

# Stressful Experiences and Risk for ADHD

**T**HIS RESEARCH UPDATE focuses on a single overarching question: Does exposure to stressful experiences put children at risk for ADHD? The two studies featured highlight the importance of understanding what researchers are measuring when trying to reconcile seemingly contradictory findings.

The first study utilized data from a large study of twins and sought to understand associations between exposure to abuse/neglect—including physical abuse, sexual abuse, emotional abuse and neglect, physical neglect, peer bullying, and domestic violence—and ADHD symptoms from childhood through adulthood. Prior research has used “retrospective” methods, in which researchers ask teens or adults to recall their prior childhood experiences. This study used a “prospective” design, in which they followed the children from very early in life over time, taking measurements along the way. The researchers accounted for a number of “confounding” factors (i.e., things that could potentially separately account for an association between abuse/neglect and ADHD symptoms), like IQ, socioeconomic status, and shared environmental and genetic factors. When controlling for these variables, they found associations between abuse/neglect and ADHD symptoms *but only among children with co-occurring conduct problems*. Importantly, childhood abuse/neglect was not independently associated with later ADHD. Instead, childhood ADHD was associated with exposure to abuse/neglect later in life among children who also had co-occurring conduct disorder. The results of this study suggest that the presence of behavioral problems (but

not ADHD per se) may put children at elevated risk for experiencing abuse/neglect over time, but do not support the notion that childhood abuse/neglect predicts adult ADHD, which is what several retrospective studies had previously concluded.

---

Stern, A., et al. (in press). Associations between abuse/neglect and ADHD from childhood to young adulthood: A prospective nationally-representative twin study. *Child Abuse & Neglect*, 81, 274-285.

In the second study, the researchers attempted to understand whether and how brain differences might account for relationships between stressful life events and ADHD symptoms. Stressful life events were measured by asking children, ages 9–13, whether they had experienced any of a number of stressful events and at what age—a “retrospective” method. The researchers controlled for age, sex, pubertal stage, race/ethnicity, and intracranial volume. They found that the number of stressful life events experienced by the children through age 5 (early childhood) was associated with ADHD symptoms at 9–13 years after accounting for covariates, and that when they added the number of stressful life events experienced after age 6 (later childhood), the relationship became stronger. The children in the study also underwent MRI scanning, which revealed that differences in brain development help explain the associations between stressful life events and ADHD symptoms. Notably, this study did not examine whether comorbid conduct problems explained the association the researchers found between stressful life events and ADHD symptoms, making it difficult to compare this study to the study described above.

---

Hymphreys, K., et al. (in press). Stressful life events, ADHD symptoms, and brain structure in early adolescence. *Journal of Abnormal Child Psychology*, epub ahead of print. **A**

---

**Meghan Miller, PhD**, is an assistant professor in the department of psychiatry and behavioral sciences and the MIND Institute at the University of California, Davis. Her research focuses on identifying the earliest behavioral manifestations of ADHD and autism spectrum disorder.

