



ECHO

Environmental influences
on Child Health Outcomes

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Study Summary

Stress During Pregnancy & Adverse Experiences in Mom's Own Childhood May Be Associated with Child Mental Health, ECHO Study Finds

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Who sponsored this study?

The Environmental influences on Child Health Outcomes (ECHO) Program, Office of the Director, National Institutes of Health supported this research.

Why was this study needed?

The global rise in pediatric mental health problems has highlighted the importance of identifying factors that may affect children's mental health. Previous research has suggested that maternal stress—both adverse experiences during the mother's own childhood and stress during pregnancy—may affect child mental health, but large-scale, diverse studies examining both exposures together, and their effects across childhood and adolescence, are needed to help researchers identify effective screening and intervention strategies.

What were the study results?

The study found that mothers' own [adverse childhood experiences](#) (ACEs)—such as abuse or neglect—and experiences of stress during pregnancy were each independently associated with a higher risk of mental health problems in their children, suggesting that maternal stressors during each period may have contributed to the child's risk in a potentially accumulative manner. These effects on children included both internalizing (e.g., anxiety, depression) and externalizing (e.g., ADHD, behavior problems) mental health issues. The effects of maternal ACEs and pregnancy stress on child mental health problems were similar for boys and girls and were seen throughout childhood and adolescence.

What was the study's impact?

The findings from this diverse nationwide study strengthen the evidence showing that maternal stress before and during pregnancy can increase the risk for child mental health problems. These results also highlight the potential benefits across generations of early screening and intervention related to maternal stress and childhood adversity—not only in improving maternal health, but also in reducing mental health problems in children and teens.

Who was involved?

The study included 6,513 mother-child pairs enrolled in 34 ECHO Cohort Study Sites across 19 U.S. states, Washington, D.C., and Puerto Rico. Children ranged in age from 1.5 to 18 years old. The sample was racially, socioeconomically, and geographically diverse.

What happened during the study?

The researchers collected information from mothers on their childhood adverse experiences and stress during pregnancy. Later, a parent or caregiver provided information on the child's mental health using either the preschool-age or school-age child behavior checklist (CBCL). Researchers then used statistical analyses to evaluate the relationship between maternal ACEs, pregnancy stress, and child mental health.

Footnote: Results reported here are for a single study. Other or future studies may provide new information or different results. You should not make changes to your health without first consulting your healthcare professional.

What happens next?

Additional research could help researchers identify other factors that may influence the risk of child mental health problems (e.g., paternal ACEs) and factors that could buffer this risk. The authors of this paper also suggest that increased screening for ACE exposure and current social needs in pregnant populations and enhanced access to prenatal mental health support could help to improve mental health for both mothers and their children.

Where can I learn more?

Access the full journal article, titled "Maternal Adverse Childhood Experiences and Prenatal Stress: Intergenerational Transmission and Offspring Mental Health in the ECHO Cohort," in [Psychological Medicine](#).

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