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Childhood stress and birth timing among African American women: Cortisol as biological mediator

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Highlights

- Childhood stress shapes birth timing, independent of stress in adulthood.
- Childhood interpersonal loss, physical danger, and role disruption play important roles.
- Maternal cortisol elevation appears to be a key biological mediator.

Abstract

Preterm birth (PTB) occurs among 1:11 U.S. white women and 1:7.5 African American women and is a significant driver of racial disparities in infant mortality. Maternal stress is the most common clinical phenotype underlying spontaneous PTB. Specific patterns of stress and biological mediators driving PTB remain unclear. We examined the effect of childhood stress on birth timing among African American women and evaluated maternal cortisol elevation as a biological mediator. A prospective observational design was employed, with a single study visit at 28-32 weeks gestation and medical record review. The Stress and Adversity Inventory was administered, which provides a comprehensive estimate of childhood stress, stress in adulthood, and five core characteristic subscales (interpersonal loss, physical danger, humiliation,