

A Sibling-Comparison Study of Smoking During Pregnancy and Childhood Psychological Traits.

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Source

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Abstract

Prenatal exposure to substances of abuse is associated with numerous psychological problems in offspring, but quasi-experimental studies controlling for co-occurring risk factors suggest that familial factors (e.g., genetic and environmental effects shared among siblings) confound many associations with maternal smoking during pregnancy (SDP). Few of the quasi-experimental studies in this area have explored normative psychological traits in early childhood or developmental changes across the lifespan, however. The current study used multilevel growth curve models with a large, nationally-representative sample in the United States to investigate for potential effects of SDP on the developmental trajectories of cognitive functioning, temperament/personality, and disruptive behavior across childhood, while accounting for shared familial confounds by comparing differentially exposed siblings and statistically controlling for offspring-specific covariates. Maternal SDP predicted the intercept (but not change over time) for all cognitive and externalizing outcomes. Accounting for familial confounds, however, attenuated the association between SDP exposure and all outcomes, except the intercept (age 5) for reading recognition. These findings, which are commensurate with previous quasi-experimental research on more severe indices of adolescent and adult problems, suggest that the associations between SDP and developmental traits in childhood are due primarily to confounding factors and not a causal association.

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