

Maternal Smoking During Pregnancy Associated with Offspring Conduct Problems, Study Suggests

CHICAGO – Smoking during pregnancy appears to be a prenatal risk factor associated with conduct problems in children, according to a study published by *JAMA Psychiatry*, a JAMA Network publication.

Conduct disorder represents an issue of significant social, clinical, and practice concern, with evidence highlighting increasing rates of child conduct problems internationally. Maternal smoking during pregnancy is known to be a risk factor for offspring psychological problems, including attention deficits and conduct problems, the authors write in the study background.

Gordon Harold, Ph.D. and Darya Gaysina, Ph.D., of the University of Leicester, England, along with colleagues in the United States and New Zealand examined the relationship between maternal smoking during pregnancy and offspring conduct problems among children raised by genetically related mothers and genetically unrelated mothers.

Three studies were used: The Christchurch Health and Development Study (a longitudinal cohort study that includes biological and adopted children), the Early Growth and Development Study (a longitudinal adoption-at-birth study), and the Cardiff IVF (In Vitro Fertilization) Study (an adoption-at-conception study among genetically related families and genetically unrelated families). Maternal smoking during pregnancy was measured as the average number of cigarettes per day smoked during pregnancy.

According to the study results, a significant association between maternal smoking during pregnancy and offspring conduct problems was observed among children raised by genetically related mothers and genetically unrelated mothers. Results from a meta-analysis affirmed this pattern of findings across pooled study samples.

“Our findings suggest an association between pregnancy smoking and child conduct problems that is unlikely to be fully explained by postnatal environmental factors (i.e., parenting practices) even when the postnatal passive genotype-environment correlation has been removed.” The authors conclude, “The causal explanation for the association between smoking in pregnancy and offspring conduct problems is not known but may include genetic factors and other prenatal environmental hazards, including smoking itself.”

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