

Smoking during pregnancy may not cause ADHD in children after all

Peer reviewed: Yes

Method of research: Systematic review

Subject of study: People

A new systematic review and meta-analysis published in the scientific journal *Addiction* and led by University of Bristol researchers shows that maternal prenatal smoking is associated with offspring attention-deficit hyperactivity disorder (ADHD) *but is unlikely to be the cause of it.*

Several studies have indicated that maternal smoking during pregnancy may contribute to offspring ADHD; however, it is unclear from those studies whether this reflects a true causal effect or is the result of confounding factors such as socioeconomic position, education, income and maternal age. This new review attempted to find an answer to that question.

The review looked at 46 prior studies that assessed the association between maternal prenatal smoking and offspring ADHD diagnosis. The review specifically included studies accounting for genetic effects, in addition to conventional approaches.

Some of those studies had a low risk of bias (meaning they are unlikely to give misleading results) and were able to take into account genetic effects. Those studies indicate that shared genetics plays a substantial role in the association of offspring ADHD with prenatal smoking. This is supported by a previous systematic review based on genetically informed designs which also concluded that the association between maternal prenatal smoking and ADHD is explained by shared genetics.

Lead author Dr Elis Haan, an Honorary Research Associate at Bristol's School of Psychological Science, says "Our systematic review shows that there is no causal effect between maternal prenatal smoking and offspring ADHD diagnosis. However, pregnant women should still be advised not to smoke during pregnancy, as prenatal smoking has harmful effects on other child health outcomes."

-- Ends --

Further information

More information about the harmful effects of smoking during pregnancy:

<https://www.nhs.uk/pregnancy/keeping-well/stop-smoking/>

For editors:

This paper is free to read for one month after the embargo lifts from the Wiley Online Library:

<https://onlinelibrary.wiley.com/doi/10.1111/add.15858> or by contacting Jean O'Reilly, Editorial Manager, *Addiction*, jean@addictionjournal.org.

To speak with lead author Dr Elis Haan, please contact her at University of Bristol by email (elis.haan@bristol.ac.uk) or contact press-office@bristol.ac.uk Monday/Tuesday or caroline.clancy@bristol.ac.uk Wed to Friday.

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Declaration of interests: None.

Addiction is a monthly international scientific journal publishing peer-reviewed research reports on alcohol, substances, tobacco, and gambling as well as editorials and other debate pieces. Owned by the Society for the Study of Addiction, it has been in continuous publication since 1884.