Maternal Smoking During Pregnancy and ADHD - Results From a Systematic Review and Meta-Analysis of Prospective Cohort Studies

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Abstract

Objective: Findings on maternal smoking during pregnancy and ADHD risk in children are inconsistent. A meta-analysis was performed to summarise effects of exposure to maternal smoking during pregnancy on ADHD risk in children.

Method: We conducted a systematic literature search to select articles up to June 2016. Only prospective cohort studies were included. Summary relative risks (RRs) with 95% confidence intervals (CIs) were calculated.

Results: Pooled RR estimates based on 12 cohort studies including 17,304 pregnant women suggested that maternal smoking during pregnancy was associated with an increased risk of ADHD (pooled RR = 1.58, 95% CI = [1.33, 1.88]).

Conclusion: Results from this study indicate that maternal smoking during pregnancy is related to an increased risk of ADHD in children. There is an urgent need to increase maternal awareness of smoking risk and quitting smoking to mitigate the ADHD risk in children.