

5.193 **BJOG** 2020 May 8. doi: 10.1111/1471-0528.16310. Online ahead of print.

# Association of Maternal Attention Deficit Hyperactivity Disorder and Preterm Birth: A Cohort Study

Susanne Hesselman<sup>1 2</sup>, Anna Wikman<sup>1</sup>, Charlotte Skoglund<sup>3</sup>, Helena Kopp Kallner<sup>4 5</sup>, Alkistis Skalkidou<sup>1</sup>, Inger Sundström-Poromaa<sup>1</sup>, Anna-Karin Wikström<sup>1</sup>

Affiliations

PMID: 32384173 DOI: [10.1111/1471-0528.16310](https://doi.org/10.1111/1471-0528.16310)

## Abstract

**Objective:** Attention deficit hyperactivity disorder (ADHD) affects 3-7% of women of childbearing age. Whether ADHD is associated with an increased risk of preterm birth is unclear.

**Design:** National register-based cohort study.

**Setting:** Sweden.

**Population:** Nulliparous women giving birth to singleton infants 2007-2014 (n = 377,381).

**Methods:** Women were considered to have ADHD if they had been dispensed at least one prescription for ADHD medication, i.e., a central nervous system stimulant or non-stimulant drugs for ADHD, prior to, during or after pregnancy (2005-2014). Women with ADHD were compared with women without ADHD in regard to prevalence, severity and mode of onset of preterm birth. Logistic regression models were used, estimating adjusted odds ratios (aOR) with 95% confidence intervals (CI). Adjustments were made for maternal age and country of birth (model 1), and in addition for body mass index (BMI), education, alcohol or substance use disorders, and pre-gestational medical and psychiatric co-morbidity (model 2).

**Main outcome measures:** Preterm birth (< 37 weeks).

**Results:** During the study period, 6,327 (1.7%) women gave birth and had ADHD according to our definition. These women had a higher rate of preterm birth compared with women without ADHD (7.3% vs 5.8%, aOR model 2: 1.17; 95 % CI 1.05-1.30). ADHD was particularly associated with very (<32 weeks) preterm births, and associations were seen with both spontaneous and medically indicated onsets.

**Conclusions:** Women with ADHD (i.e. had been dispensed ADHD medication at any time point 2005-2014), had an increased risk of preterm birth.

**Keywords:** Attention deficit hyperactivity disorder; premature birth.