

## **Associations of maternal and paternal antenatal mood with offspring anxiety disorder at age 18 years.**

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### **Abstract**

#### **OBJECTIVE:**

Maternal antenatal depression and anxiety are associated with increased risk of childhood behavioural and emotional problems in offspring; it remains unclear to what extent this is due to a maternal biological impact on foetal development. Here, we compare associations between maternal and paternal antenatal depression and anxiety with offspring anxiety disorders, thus controlling for some genetic and shared environmental factors.

#### **METHODS:**

We used data from the ALSPAC population cohort including measures of antenatal parental depression and anxiety. At 18 years, offspring completed the CIS-R interview, yielding diagnoses for anxiety disorders. Results were adjusted for confounding variables including parental postnatal depression and anxiety.

#### **RESULTS:**

Children of women with antenatal depression (18 weeks gestation), had an increased risk of anxiety disorders at 18 years of age (11.1% vs. 6.2%; adj. OR 1.75 (1.19, 2.58);  $p=0.01$ ). Children of women with antenatal anxiety had increased risk of co-morbid anxiety and depression (adj. OR 1.39 (1.06, 1.82);  $p=0.02$ ). No such associations were found with paternal antenatal depression or anxiety.

#### **LIMITATIONS:**

There was a high attrition rate from the original cohort to the CIS-R completion at 18 years postpartum. Parental mood was only assessed together at one time point during the antenatal period.

#### **CONCLUSIONS:**

The differences in the association between maternal and paternal mood during pregnancy and child outcomes supports the hypothesis that foetal programming may account, at least in part, for this association. We highlight the potential opportunity for preventative intervention by optimising antenatal mental health.

#### **KEYWORDS:**

ALSPAC; Anxiety; Depression; Foetal programming; Maternal; Paternal