Cognitive Functioning in Women 6 Years after Prenatal Depression

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Introduction

• Depression is often associated with global cognitive deficits,¹ that impact all aspects of daily life, with effects on occupational performance, healthcare costs, and social functioning.¹,²
• Even with pharmacotherapy and symptom remission, persistent cognitive deficits prevent complete functional recovery.²
• Whether cognitive deficits long after pregnancy are associated with prenatal depression and treatment with a serotonin reuptake inhibitor (SRI) antidepressant remains to be studied.
• Aim: Examine the predictors of cognitive function (executive functions) in women 6 years after experiencing prenatal depression.
• Hypothesis: We expect current mood to be a significant predictor of cognitive functioning, above effects of prenatal mood, education, age, and SRI treatment.

Methods

• Data: Women were recruited during their second trimester of pregnancy in a longitudinal birth cohort (n=191, 2002-2015) study of the developmental impacts of prenatal depression and SRI exposure (healthy, singleton pregnancies with no maternal bipolar disorder or drug abuse).
• Hierarchical regression analysis was conducted to examine the impact of prenatal and current maternal mood on executive function, controlling for the impact of SRI treatment (prenatal and current) and age and education as key maternal covariates.

Results

• Women were recruited during their second trimester of pregnancy in a longitudinal birth cohort (n=191, 2002-2015) study of the developmental impacts of prenatal depression and SRI exposure (healthy, singleton pregnancies with no maternal bipolar disorder or drug abuse).
• Hierarchical regression analysis was conducted to examine the impact of prenatal and current maternal mood on executive function, controlling for the impact of SRI treatment (prenatal and current) and age and education as key maternal covariates.

• Higher levels of prenatal depressive symptoms were associated with poorer cognitive function (NCI) long after pregnancy, controlling for SRI treatment. (prenatal and current), age, and education ($β=-.236$, t=-2.139, p=.035).
• The model predicted 10% of the variance in maternal cognitive capacity.

Discussion

• Prenatal depression predicted maternal cognitive functioning long after pregnancy.
• Our findings reflect the recurrent and ongoing nature of perinatal depression and is consistent with previous findings showing that prenatal depression increases risk for future depression.³
• Prenatal and current SRI treatment was not associated with improved executive function, potentially reflecting either under-treatment of perinatal mood disorders or SRI therapeutic failure.
• Clinical implications:
  • Major depression is a highly recurrent illness, and this is reflected by the minimal contribution of current maternal mood.
  • Prenatal treatment with an SRI was not protective against postnatal mood disturbances.
  • As prenatal depression increases risk for postpartum and non-postpartum depression,³ these findings highlight the critical clinical need for ongoing assessment of maternal mood across perinatal periods.

References


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