

Maternal depression and child externalizing behaviors

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ABSTRACT

Approximately 11% of women with children aged 1 to 4 years old are identified with depression.¹ Children of mothers with depression are more likely to exhibit externalizing behavior problems, and these problems have been reported to appear more frequently in male children.² We examined the association between maternal depression and externalizing behavior in toddlers, and whether child sex moderated these effects. Among children who experience clinical levels of maternal depression, we expected boys to exhibit higher behavior problems than girls. The sample included 186 mother/child dyads (95 male children) who were recruited in the first trimester of pregnancy from an urban hospital. We measured maternal depression using the Beck Depression Inventory-II³ at 24 months of child age. Mothers were identified as having high or low levels of depression based on the clinical cutoff score of 17 or higher. Externalizing behavior was measured at 36 months of child age using maternal reports on the Child Behavior Checklist (CBCL).⁴ The raw scores on the CBCL were then converted into *t*-scores and used in analyses. We used univariate analysis of variance to examine differences in externalizing behavior, with high vs. low levels of maternal depression and child sex as the independent variables and scores on the externalizing behavior subscale as the dependent variable.

There was a significant association between maternal depression at 24 months and externalizing problems at 36 months. Mothers at or above clinical cut-off for depression at 24 months of child age later reported higher externalizing problems in their child at 36 months of child age. There was no main effect of child sex, or an interaction of child sex and maternal depression. Thus, this association was not different for boys and girls. These results suggest mothers who have clinical levels of depression at toddler age have children with higher maternal reports of externalizing problems at preschool age. This association did not vary as a function of child sex. This result contradicts the expected result that externalizing behaviors in male toddlers would be more severe than in female toddlers. One implication is that treating maternal depression during early childhood may decrease the prevalence of externalizing behaviors in children. This may lead to healthier social development of these children.

OBJECTIVES

Maternal depression during the first year of life has been associated with increased problem behaviors.⁵ We wondered if this association would be evident at later time points in the child's life. Externalizing behavior is defined as the lashing outward at others by aggression, violence, defiant and criminal behaviors.⁶ The CBCL measures attention problems and aggressive behavior as an indicator of externalizing problems. To measure attention problems and aggressive behavior, the mother of the child was asked to rate the severity of child behaviors such as, "Quickly shifts from one activity to another," or "Screams a lot". A higher rating of these behaviors indicates a higher degree of externalizing behavior.

METHODS

Participants

186 mother-child dyads were recruited prenatally into this ongoing study

One non-smoker was recruited for every two smokers, and they were matched on maternal age and education

If the measures used to measure maternal depression and child externalizing behavior were not completed, this was categorized as missing data.

Women were excluded if they drank heavily, used illicit drugs other than marijuana, or were diagnosed with a major mental illness. Another exclusion factor was if they were under the age of 18 or did not speak English.

There were 95 male children and 91 female children.

Identification of Maternal Depression

We measured maternal depression at 24 months using the Beck Depression Inventory

We considered the level of depression to be high if the mother was above the clinical cutoff score of 17. There were 162 mothers under the clinical cutoff and 24 mothers over the clinical cutoff.

Assessment Externalizing Behaviors

We measured child externalizing behavior at 36 months child age using the Child Behavior Checklist for 1.5 to 5 year olds. The scores had a range of 57 with a standard deviation of 10.02, and a mean of 48.74.

Prior to analyses, raw externalizing behavior scores were converted into *t*-scores..

RESULTS

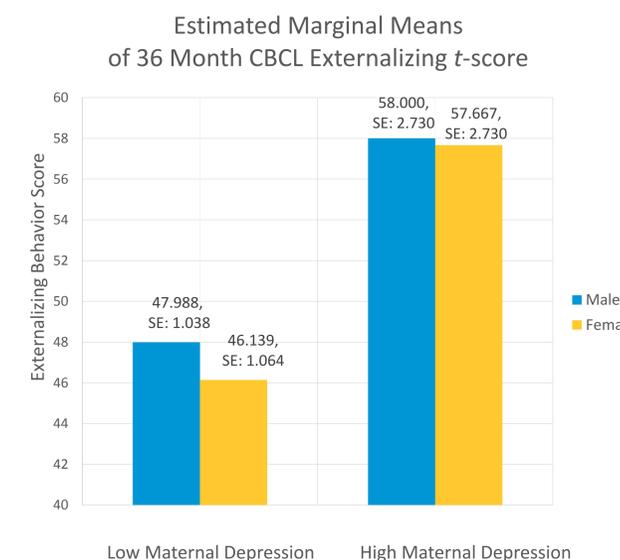


Figure 1. Mean externalizing scores

A 2 X 2 factorial analysis of variance (ANOVA) tested the effects of child sex and maternal depression on child externalizing behavior. As hypothesized, externalizing scores of toddlers with mother's who experienced depression levels under the clinical cutoff were lower (47.06 [45.597-48.530]), than scores of toddlers with mother's whose depression levels were above the clinical cutoff (57.83 [54.025-61.642]). There was not a significant effect of child sex on externalizing behaviors, and the externalizing scores did not differ significantly between males (52.99 [50.113-55.875]) and females (51.90 [49.013-54.793]). There was no interaction of child sex and maternal depression on child externalizing behavior.

CONCLUSIONS

Our results are consistent with previous studies indicating an association between maternal depression and child behavior problems.

Contrary to our hypothesis, boys did not have higher externalizing problems compared to girls and child sex did not interact with maternal depression to predict externalizing behavior problems.

These findings suggest that interventions designed to reduce maternal depression at two years postpartum may have significant effects on levels of child externalizing behavior in preschool age. This may have a long lasting impact on reducing risk for teen delinquency or adult crime.

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