Maternal Depression and its Relation to Children's Development and Adjustment

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Introduction

Depression is one of the most common mental health disorders, especially common during women's childbearing years.[1,2] Maternal depression is related to child outcomes as early as birth and across later developmental periods. Accordingly, maternal depression is a significant and relatively common risk factor during early childhood. A pressing goal for research is to understand developmental trajectories and processes underlying relations between maternal depression and children's development.

Subject

Maternal depression is demonstrated to contribute to multiple early child developmental problems, including impaired cognitive, social and academic functioning.[3-6] Children of depressed mothers are at least two to three times more likely to develop adjustment problems, including mood disorders.[3] Even in infancy, children of depressed mothers are more fussy, less responsive to facial and vocal expressions, more inactive and have elevated stress hormones compared to infants of non-depressed mothers.[7,8] Accordingly, the study of child development in the context of maternal depression is a great societal concern and has been a major research direction for early childhood developmental researchers for the past several decades.

Problems

Whereas relations between maternal depression and children's adjustment problems are well-documented, many questions remain about the mechanisms underlying these associations. These questions are at the heart of any possible clinical implications of research in this area, including prevention and treatment. For example, how and why is maternal depression related to children's development and adjustment? Why do some children of depressed mothers develop symptoms of psychopathology or impaired functioning, whereas others do not?

There are many challenges for identifying and testing causal processes, such as ensuring sufficiently sophisticated models and research designs to guide study of multiple, and often interrelated, processes. The challenge of ensuring adequate conceptualization, measurement and assessment also pose potential pitfalls and limitations, including the requirements for longitudinal research to optimally test causal hypotheses.

Investigators have met these challenges by advancing multivariate risk models. For example, Goodman and Gotlib posited several, inter-related, classes of mechanisms, including (a) heritability, (b) exposure to environmental stressors, including increased family dysfunction, (c) exposure to their mothers' negative cognitions, behaviours, or affect, and (d) dysfunction of neuroregulatory mechanisms.[9] Illustrating one of these pathways, depressed pregnant women may experience neuroendocrine abnormalities (e.g., increased stress hormones, reduced blood flow to the fetus) which may lead to dysfunction of neuroregulatory mechanisms among infants, increasing their vulnerability for depression or other disorders.

Research context

In the context of studies of early child development, the study of disruption in family functioning as contributors to early child development outcomes has emerged as a focal area of investigation. Even when study is limited to family processes as influences, multivariate risk models find support.[9-12] For example, Cummings and Davies[13] presented a framework for how multiple disruptions in child and family functioning and related contexts are supported as pertinent to associations between maternal depression and early child adjustment, including problematic parenting, marital conflict, children's exposure to parental depression, and related difficulties in family processes.[10,11] A particular focus of this family process model is identifying and distinguishing specific response processes in the child (e.g., emotional insecurity; specific emotional, cognitive, behavioral or physiological responses) that, over time, account for normal development or the development of psychopathology.[10]

Key Research Questions

At this point, many key research questions need to be addressed by the study of longitudinal relations between maternal depression, hypothesized family and child response processes, and multiple child outcomes. Tests may include investigations of explanatory process models or studies of trajectories or pathways of development. Goals include identifying underlying family and child processes linking maternal depression and child development, how do these processes work together and change over time, child gender differences in effects, and the role of child characteristics.

Recent Research Results

Parenting has long been the focus of research of family processes that may contribute to child outcomes.

Studies have shown repeatedly that maternal depression is linked with less optimal parenting and less secure mother-child attachment.[5,15,16] Depressed mothers are more likely to be inconsistent, lax, withdrawn or intrusive, and ineffective in their parenting and child discipline behaviour. Inadequate parenting and lower quality parent-child relationships, in turn, are related to increased risk for maladjustment among children.

Although marital conflict has long been linked with the effects of maternal depression, the study of this topic continues to be relatively neglected. At the same time, recent evidence continues to support that interparental conflict is a robust influence on child outcomes, even when compared to parenting in community samples.[14]

Extensive research documents links between marital conflict and child maladjustment in families with maternal depression. In contexts of maternal depression, marital conflicts are characterized by lower positive verbal behaviour, sad affect, increased use of destructive conflict tactics, and lower likelihood of conflict resolution.[17,18] Interparental conflict is a robust predictor of children's functioning across multiple domains, including socio-emotional outcomes, cognitive functioning and academic success.[19]

Studies are explicitly testing family processes, including interparental conflict, as mediators or moderators between maternal depression and children's outcomes. The findings show that maternal depression is related to increased interparental conflict and relationship insecurity, more family-level conflict and overall family functioning. Disruptions in these family processes, in turn, are related to higher levels of children's psychological distress and adjustment problems.[20-24] The role of child characteristics in the association between maternal depression and children's development is also under investigation, including children's temperament and physiological responses to stress.[5, 25]

Research Gaps

There are still many gaps that need to be addressed. First, further study of the role of interparental conflict in the effects associated with maternal depression is needed, especially distinguishing between forms of conflict. For example, quite different effects on children have been linked to constructive, destructive and depressive interparental conflicts.[26] Second, longitudinal research across different developmental periods is needed to understand the short-term and long-term consequences of maternal depression for family functioning and children's development. Third, it is important for studies to distinguish between clinical and subclinical levels of maternal depression.[10] Similarly, the impact of the characteristics of maternal depression requires further investigation; depression is a heterogeneous disorder, and the timing, chronicity and number of episodes of maternal depression may influence relations between maternal depression and child adjustment. Fourth, although research has focused on maternal depression, the effect of paternal depression deserves further consideration, including examining relations when both parents are depressed.[5] Fifth, further study of child characteristics, such as temperament, sex, genetics and physiological regulation warrant consideration. Lastly, research should aim for more specificity with regard to child outcomes. For example, why do some children develop impaired social competence in the context of maternal depression, whereas other children develop symptoms of depression?

Conclusions

Maternal depression is related to a wide range of child outcomes, and the effects continue from birth into

adulthood. Children of depressed mothers are two to three times more likely to develop a mood disorder, and are at increased risk for impaired functioning across multiple domains, including cognitive, social and academic functioning, and poor physical health. At the same time, many children of depressed mothers develop normally. Therefore, the key research goal is to understand the pathways and processes through which maternal depression affects children. Disruptions to family processes, including parenting problems and interparental conflict, are documented as pathways through which maternal depression affects children. Evidence that family processes may account for links between maternal depression and child development is promising from a treatment and intervention standpoint, in that family processes can be more easily targeted and altered than other mediating processes (e.g., heritability).

Implications for parents, services and policy

Policy-makers and clinicians should work together to make services, such as screenings for pregnant women and mothers, readily available.[6] Programs aimed at reducing disruptions to family functioning are one avenue for decreasing children's risk for psychopathology. Parents, clinicians and policymakers should be sensitive to the fact that comprehensive programs are needed that not only treat mothers' depression but also offer family-level services. For example, depressed mothers could be provided with parent education classes to teach them effective skills and best practices for child rearing and discipline. Families with a depressed parent can partake in educational classes that teach constructive ways to handle conflict, that is, how to handle conflict in ways that promote problem-solving and conflict resolution. As more research on moderating factors is conducted, prevention and treatment efforts can be better targeted to those most at risk. Such comprehensive efforts that work together with mothers, children and families will certainly have a long-lasting and important impact on children's development.

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