

## Intergenerational transmission of adverse childhood experiences via maternal depression and anxiety and moderation by child sex

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### Abstract

Adverse childhood experiences (ACEs) of parents are associated with a variety of negative health outcomes in offspring. Little is known about the mechanisms by which ACEs are transmitted to the next generation. Given that maternal depression and anxiety are related to ACEs and negatively affect children's behaviour, these exposures may be pathways between maternal ACEs and child psychopathology. Child sex may modify these associations. Our objectives were to determine: (1) the association between ACEs and children's behaviour, (2) whether maternal symptoms of prenatal and postnatal depression and anxiety mediate the relationship between maternal ACEs and children's behaviour, and (3) whether these relationships are moderated by child sex. Pearson correlations and latent path analyses were undertaken using data from 907 children

and their mothers enrolled the Alberta Pregnancy Outcomes and Nutrition study. Overall, maternal ACEs were associated with symptoms of anxiety and depression during the perinatal period, and externalizing problems in children. Furthermore, we observed indirect associations between maternal ACEs and children's internalizing and externalizing problems via maternal anxiety and depression. Sex differences were observed, with boys demonstrating greater vulnerability to the indirect effects of maternal ACEs via both anxiety and depression. Findings suggest that maternal mental health may be a mechanism by which maternal early life adversity is transmitted to children, especially boys. Further research is needed to determine if targeted interventions with women who have both high ACEs and mental health problems can prevent or ameliorate the effects of ACEs on children's behavioural psychopathology.

**Keywords:** Adverse, Child behavior, Internalizing and Externalizing behavior, Maternal anxiety, Maternal depression