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# Examining Associations between Mothers' Early Adversity, Depression and Maternal Sensitivity

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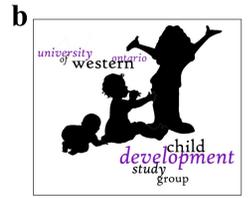
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# Examining Associations Between Mothers' Early Adversity, Depression and Maternal Sensitivity



Rossana Bisceglia<sup>a</sup>, Greg Moran<sup>b</sup> and Jennifer Jenkins<sup>a</sup>

## ABSTRACT

This study tested two models for the indirect influence of mothers' early adversity on maternal sensitivity:

### Model A:

- Mothers' appraisal of infant temperament was hypothesized to mediate the influence of mothers' early adversity and depression on maternal sensitivity
- There would be no direct influence of maternal depression

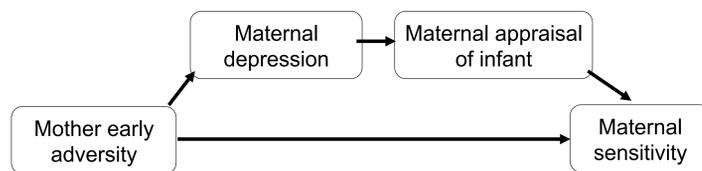
### Model B:

- Mothers' depression was hypothesized to have a direct influence on maternal sensitivity
- Mothers' perception of infant temperament would not mediate the influence of maternal depression on maternal sensitivity

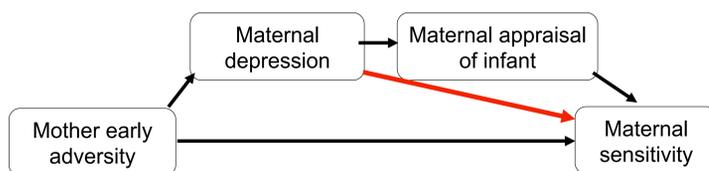
### RESULTS:

- The association between early adversity and maternal sensitivity was completely accounted for by maternal depression and mothers' appraisal of infant temperament (Model A).
- Depression did not directly relate to maternal sensitivity, it's influence was completely mediated by mother's perceptions of their infant.

### MODEL A



### MODEL B



## BACKGROUND

### Mothers' early adversity and maternal sensitivity.

- Maternal sensitivity refers to mothers' ability to accurately perceive infants' signals and to respond to them promptly and appropriately (Ainsworth, Blehar, Waters, & Wall, 1978).
- Mothers' early adversity is associated with maternal sensitivity (e.g. see Gonzalez, Jenkins, Steiner, & Fleming, 2009).
- Life course theories suggest that subsequent positive and negative experiences mediate the effects of early adversity on future functioning (O'Connor, 2006).
- Reports have shown that maternal depression is an important mediator for the effects of early adversity on parenting (e.g. Bifulco et al., 2000).

### Maternal depression and infant appraisal

#### Model A:

- Studies have not considered whether mothers' negative appraisal of their child mediate the influence of depression on maternal behavior. Thought distortions is an important component of maternal depression (Mayberry & Affonso, 1993; Teti & Gelfand, 1997). These have been suggested to account for depressed mothers' reduced responsiveness (Stein et al., 2010).

- This implies that mothers' perceptions of their child would mediate the influence of maternal depression on maternal sensitivity; This is tested with Model A.

#### Model B:

- Since depression is a heterogeneous disorder characterized by additional manifestations other than thought distortions, it is possible that the influence of maternal depression on maternal behavior may be independent of mothers' perceptions of their children.

- Model B tests the hypothesis that maternal depression may be directly related to maternal sensitivity suggesting an alternate path of influence

## METHOD

### Sample

- The sample consisted of 501 families drawn from the full sample of the Kids, Families and Places Study which is an ongoing prospective study of newborns, older siblings and their families in Toronto and Hamilton area.
- Infant age (M= 2 months, SD= 1 month); Infant gender: 50% boys; 94% of mothers were married or cohabiting

### Measures

Response Variable: Maternal Sensitivity

- Latent variable constructed using the Ainsworth Scales (Ainsworth, 1969) and the Maternal Behavior Q-Sort-short version (Pederson & Moran, 1995)

### Predictor Variables:

- Early adversity: mother report
  - A cumulative indicator consisting of the following experiences: mothers raised by a mother with low education, and/or who was a teen at time of first pregnancy, raised by parents with alcohol/drug and/or mental health problems, experienced physical and/or sexual abuse, and witnessed physical and/or verbal abuse.

### Covariates:

- Canadian born status, mother report
- Mothers' education, mother report
- Family income: mother report

### Mediators:

- Maternal depression: Center for Epidemiological Studies Depression Scale (Radloff, 1977). mother report
- Mothers' appraisal of infant temperament: Infant Characteristics Questionnaire (Bates, Freeland, & Lounsbury, 1979), mother report.

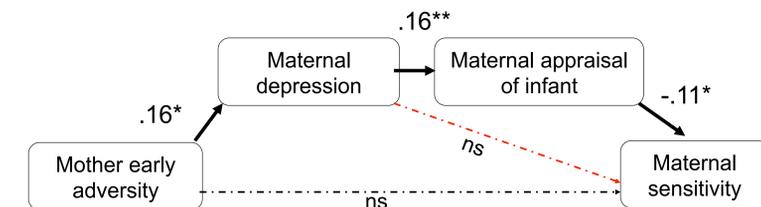
**Statistical analyses:** The data were analyzed using Structural Equation Modeling (SEM) with AMOS v. 17 (Arbuckle, 2008).

## RESULTS

Model	$\chi^2$	DF	BIC	CFI	RMSEA	TLI
A	87.37 <sup>a</sup>	50	342.25	.99	.04	.98
B	86.11 <sup>a</sup>	49	347.20	.99	.04	.98
$\Delta$ fit	1.26 <sup>b</sup>	1	4.95 <sup>b</sup>	-	-	-

<sup>a</sup> p < .001, <sup>b</sup> p > .05

## RESULTS



\* p < .05, \*\* p < .01

- Adding a direct pathway between depression and maternal sensitivity did not improve the fit of the model ( $\Delta\chi^2_{(1)}=1.26, p>.05$ ) therefore Model A is retained over Model B.
- Mothers' early adversity is significantly related to mothers' depression ( $\beta = .16, p < .05$ ) which is in turn positively related to mothers' negative appraisal of the infant's temperament ( $\beta = .16, p < .01$ ) which is associated with lower levels of maternal sensitivity ( $\beta = -.11, p < .01$ ).
- Confidence intervals indicate that the indirect influence of mothers' early adversity on maternal sensitivity is significant .05 level.

## DISCUSSION

- Mothers' depression and mothers' appraisal of infant temperament were found to mediate the influence of mothers' early adversity on maternal sensitivity.
  - There was no evidence of a direct relationship between maternal depression and maternal sensitivity.
- Mothers' depression and appraisals of the infant completely accounted for the association between early adversity and sensitivity.
- These findings are in line with attachment research and research on negative life events which show relations between early adversity and adult subsequent disturbance (Brown & Harris, 1993; Bowlby, 1969, 1988).

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