



Maternal Risk Factors Associated With the Trajectory of Early Infant Social-Emotional Difficulties

Sarah M. Ahlfs-Dunn, M.S., and Alissa C. Huth-Bocks, Ph.D.
Eastern Michigan University



INTRODUCTION

Social-emotional development begins at birth, and early social-emotional difficulties have the potential to influence an individual throughout the lifespan (DeGangi et al., 2000; Ohr et al., 2006). Within the first year of life, the mother-infant relationship is a critical influence on infant social-emotional development; however, the impact of maternal risk factors on the trajectory of infant social-emotional difficulties within the first year of life has not been well studied.

AIM: To investigate how two types of maternal risk factors (i.e., those central to mothers' personal well-being and those associated with the mother-infant relationship) influence the trajectory of infant social-emotional difficulties during the first year of life.

METHOD

PARTICIPANTS:

A community sample of primarily low-income women ($N = 111$) participated in interviews during their third trimester of pregnancy and at 3 months and 1 year postpartum as part of an ongoing study on women's transition to motherhood. As part of larger interview batteries, participants were asked about their infants' social-emotional development, their experience of intimate partner violence (IPV), their mental health symptoms, their feelings of maternal self-efficacy, and their level of parenting stress.

- Age: Mean = 26 (Range = 18 – 42, $SD = 5.7$)
- Race/ Ethnicity: 47% = African American, 37% = Caucasian, 13% = Biracial, 4% = Other Ethnic Groups
- Education: 18% = High School Diploma/ GED or less, 44% = Some College or Trade School, 38% = College Degree
- Monthly Income: Median = \$1,600
- Relationship Status: 64% = Single, 29% = Married, 4% = Separated, 3% = Divorced
- First Time Mothers: 30%

MEASURES:

1 – *Infant Social-Emotional Development*. The Cry-Feed-Sleep Interview (CFSI; McDonough, n.d.; Seifer et al., 1994; St. James-Roberts & Halil, 1991) and the Brief Infant-Toddler Social and Emotional Assessment (BITSEA; Briggs-Gowan & Carter, 2006) were used at 3 months and 1 year postpartum, respectively, to assess social-emotional difficulties.

2 – *Intimate Partner Violence (IPV)*. The Conflict Tactics Scales-2 (CTS-2; Straus, Hamby & Warren, 2003) was used during pregnancy and at 1 year postpartum; a composite variable was created combining the two time periods.

3 – *Maternal Mental Health*. A mental health composite was created using participants' depressive, anxious, and Post-Traumatic Stress Disorder (PTSD) symptoms during pregnancy and at 3 months and 1 year postpartum using the following measures. All scales were z-scored before they were summed.

Maternal Depression. The Edinburgh Postpartum Depression Scale (EPDS; Cox, Holden & Sagovsky, 1987; Wisner, Perry & Piontek, 2002) was used during pregnancy and at 3 months postpartum. The Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996) was used at 1 year postpartum.

Maternal Anxiety. The anxiety items from the Brief Symptom Inventory (BSI; Derogatis, 1993) were used during pregnancy and at 1 year postpartum.

Maternal PTSD. The PTSD Checklist (PCL; Weathers, Litz, Herman, Huska, & Keane, 1993) was used during pregnancy and at 1 year postpartum.

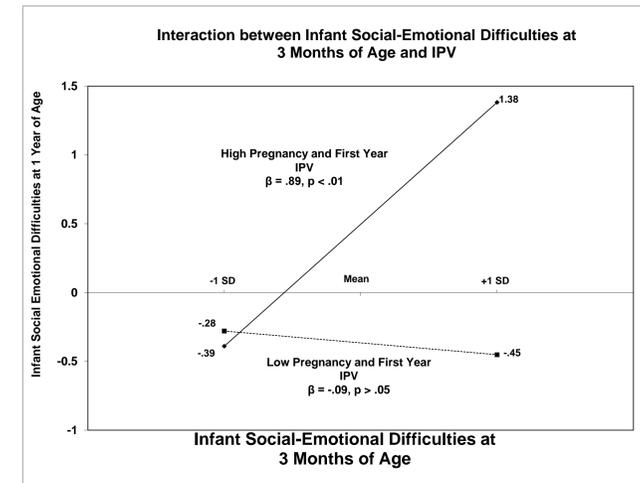
4 – *Maternal Self-Efficacy*. The Maternal Self-Report Inventory-Short Form (MSRI; Shea & Tronick, 1988) was used at 3 months postpartum.

5 – *Parenting Stress*. The Parenting Stress Index-Short Form (PSI-SF; Abidin, 1995) was used at 1 year postpartum.

*Higher scores on all measures indicate higher levels of that variable.

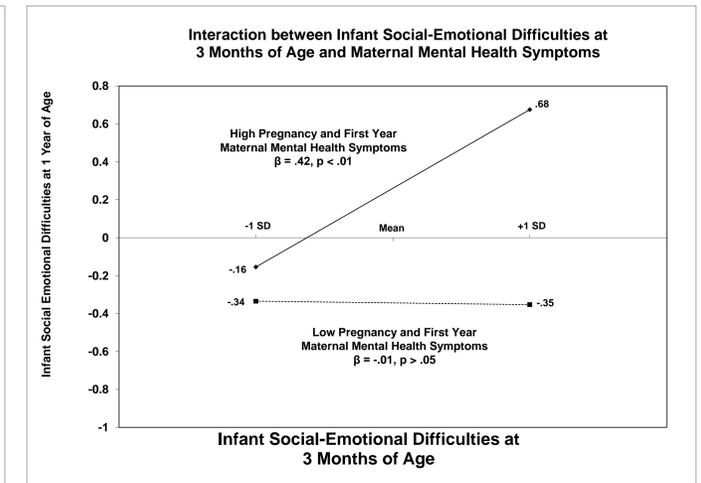
RESULTS

Infant social-emotional difficulties at 3 months of age were positively related to infant social-emotional difficulties at 1 year of age, $r = .25, p < .01$.



The association between infant social-emotional difficulties at 3 months of age and infant social-emotional difficulties at 1 year of age was moderated by IPV ($\beta = .40, p < .05$).

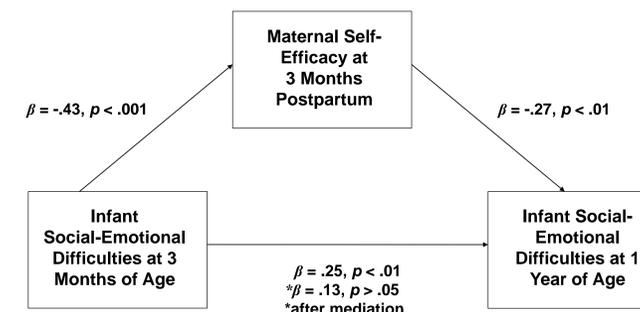
Post-hoc analyses revealed that there was a significant positive slope for those with greater amounts of IPV ($\beta = .89, p < .01$), but there was no significant association for those with lower amounts of IPV ($\beta = -.09, p > .05$).



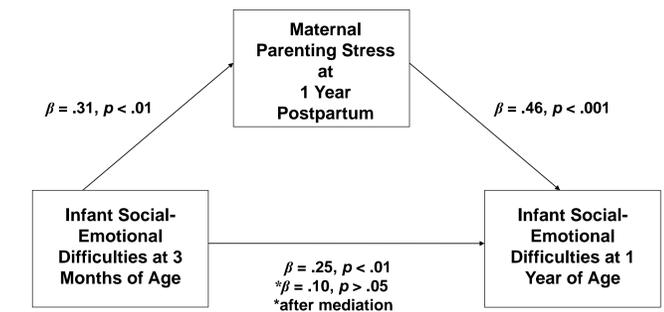
The association between infant social-emotional difficulties at 3 months of age and infant social-emotional difficulties at 1 year of age was moderated by maternal mental health symptoms ($\beta = .20, p < .05$).

Post-hoc analyses revealed that there was a significant positive slope for those with greater amounts of maternal mental health symptoms ($\beta = .42, p < .01$), but there was no significant association for those with lower amounts of maternal mental health symptoms ($\beta = -.01, p > .05$).

Maternal Self-Efficacy Mediation Model



Maternal Parenting Stress Mediation Model



Maternal self-efficacy at 3 months postpartum and maternal parenting stress at 1 year postpartum both fully mediated the association between infant social-emotional difficulties at 3 months and 1 year of age.

DISCUSSION

These results suggest that risk factors central to mothers' personal well-being (i.e., IPV and mental health symptoms) exacerbate the trajectory of infant social-emotional difficulties during the first year of life, whereas risk factors associated with the mother-infant relationship (i.e., maternal self-efficacy and parenting stress) account for the stability of infant social-emotional functioning during the first year of life.