Maternal Interpersonal Trauma and Disrupted Maternal Representations: Implications for Infant Social-Emotional Development

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Maternal Interpersonal Trauma & Maternal Mental Health

- **Prevalent across the Lifespan**
  - *Childhood Maltreatment*
    - 2010: 3.3 million referrals, 19.5% substantiated
  - *Childhood Exposure to Intimate Partner Violence (IPV)*
    - 15.5 million children exposed in a year
  - *IPV during Adulthood*
    - 1.9% to 70% in general (0.9% to 36% during pregnancy)

- **Mental Health Sequelae**
  - PTSD
  - Depression
  - Anxiety
Maternal Interpersonal Trauma & Infant Social-Emotional Development

- Detrimental Impact on Infant Social-Emotional Development
  - Effects on infant physiology, emotion regulation, mother-infant relationship, internalizing, externalizing, and trauma symptomatology

- What accounts for this association?
  - Mother-child relationship is important
Maternal Representations of the Child

- **Associations with maternal trauma**
  - Previous research has found that childhood physical neglect, IPV, unresolved states of mind, depression, and PTSD are more likely to be associated with problematic or non-balanced maternal representations.

- **Associations with infant social-emotional development**
  - Concordance with infant attachment classifications at 1-year.
    - balanced → secure; disengaged → avoidant; distorted → ambivalent; disrupted → disorganized
  - Non-balanced representations associated with infant diagnoses, infant mental health referrals, more negative affect, poorer quality play, less attention seeking/contact maintenance when distressed.
Disrupted Maternal Representations of the Child

- The most problematic type of maternal representations of the child

- Theoretically linked to experiences of maternal interpersonal trauma and infant social-emotional difficulties.

- Recent research has found associations with unresolved states of mind on the Adult Attachment Interview and disorganized infant attachment using the Strange Situation (Crawford & Benoit, 2009)
The Present Study

- Research has yet to look at specific types of trauma and mental health sequelae in relation to disrupted maternal representations of the child.

- There is a need to look at broader infant social-emotional outcomes in relation to disrupted maternal representations.
Research Questions & Theoretical Model

- What accounts for the intergenerational transmission of trauma?
- Might disrupted maternal representations of the child be a mechanism?
Participants - Mothers

- 120 primarily low-income women
- Average mothers’ age = 26 (Range = 18-42, SD = 5.7)
- Racial/Ethnic self-identification:
  - 47% African American
  - 36% Caucasian
  - 13% Biracial
  - 4% other ethnic groups
- Marital Status:
  - 64% single (never married)
  - 28% married
  - 4% separated
  - 4% divorced
- 30% were first time mothers
Participants - Mothers

- **Highest level of education obtained:**
  - 20% high school diploma/GED or less
  - 44% some college or trade school
  - 36% college degree

- **Median monthly family income** = $1,500
  (range = $0 - $10,416)

- **Social Services received:**
  - 88% WIC
  - 62% food stamps
  - 90% Medicaid, Mi-Child, or Medicare
  - 20% public supplemental income
Participants – Children

- 54% boys

- Infants (1 year time point)
  - Average age: 12.2 months ($SD = 0.6$)
  - Range = 11.6 – 14.6 months
Procedures

- Participants were recruited via fliers, mostly from:
  - community-based health clinics (23%)
  - Women, Infants, and Children (WIC) program (18%)
  - regional-level university and community college (16%)
  - “community baby shower” (11%)
  - word of mouth (11%)

- Interviewed, primarily at home, during the third trimester of pregnancy and at 1 and 2 years postpartum
  - 2 ½ to 3 hours
  - Compensated with cash/gift card and a baby gift
Maternal Interpersonal Trauma Measures

- **Childhood Maltreatment**
  - *Childhood Trauma Questionnaire* 
    (CTQ; Bernstein & Fink, 1998)

- **Childhood Exposure to IPV**
  - *Record of Maltreatment Events – Modified* 
    (ROME-M; Diamond & Muller, 2004; Wolfe & McGee, 1994)

- **IPV during Pregnancy**
  - *Conflict Tactics Scale – 2* 
    (CTS-2; Straus, Hamby, & Warren, 2003)
Maternal Mental Health Measures (administered at pregnancy)

- **PTSD**
  - *PTSD Checklist*  
    (PCL; Weathers, Litz, Herman, Huska, & Keane, 1993)

- **Depression**
  - *Edinburgh Postpartum Depression Scale*  
    (EPDS; Cox, Holden & Sagovsky, 1987)

- **Anxiety**
  - *Brief Symptom Inventory*  
    (BSI; Derogatis, 1993)
Disrupted Maternal Representations of the Child

- The Working Model of the Child Interview (WMCI; Zeanah, Benoit, Barton, & Hirshberg, 1996)
  - Administered at the pregnancy interview

- WMCI-Disrupted Coding Scheme (Crawford & Benoit, 2009)
  - 83% (n = 98) = Disrupted in this sample
  - Total continuous disrupted score (1-7) used in analyses
  - Inter-rater Reliability (ICCs)
    - Dim. I = .78
    - Dim. II = .76
    - Dim. III = .73
    - Dim. IV = .77
    - Dim. V = .65
    - Total Dimensional Score = .83
    - D vs. Not-D Classification = 96% match
Infant Social-Emotional Development Measures
(administered at 1 year of age)

- **Infant Social-Emotional Problems**
    - Parent-report used to assess social-emotional and behavior problems in young children

- **Infant Attachment Security**
  - *Attachment Q-Sort Procedure* (AQS; Waters & Dean, 1985)
    - Observation of the mother-child relationship in the home; specifically the degree to which the child feels safe and comfortable with the mother
Results: Significant Bivariate Associations

Figure 1

Significant Bivariate Associations between Maternal Interpersonal Trauma, PTSD Symptoms, Disrupted Prenatal Maternal Representations of the Child, and Infant Social-Emotional Development

*p < .05. **p < .01.
## Results: Predicting Prenatal Degree of Disruption

<table>
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<th>Standardized Beta</th>
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<td>Income</td>
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<td><strong>Step Three:</strong></td>
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<tr>
<td>Total PTSD</td>
<td>.23*</td>
<td>7.91**</td>
<td>.20*</td>
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* $p < .05$.  ** $p < .01$. 
Notably, when predicting and understanding disrupted maternal representations of the child, mothers’ *current trauma-specific symptoms* appear to be more important than their history of trauma exposure.
Conclusions

- **This study:**
  - supports the theory concerning disrupted maternal representations of the child, maternal interpersonal trauma, and infant social-emotional difficulties.
  - demonstrates that prenatal disrupted maternal representations are important in the intergenerational transmission of trauma, thereby indicating one potential area for early intervention.
  - demonstrates the utility and validity of the new WMCI-Disrupted coding scheme within a highly traumatized, low-income sample.
Acknowledgments

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