Consequences of Childhood Abuse and Intimate Partner Violence among Pregnant Women

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Prevalence of Trauma among Women

Childhood interpersonal trauma (abuse and neglect) is relatively common

- 12-20% of women report childhood sexual abuse (Wijma et al., 2000)
- 10-25% of adults report childhood physical abuse (WHO, 1999)
  - Half are girls (Trocme et al., 2001)
- Many more experience neglect, as neglect is the most common form of childhood maltreatment
- Rates are much higher in clinical samples
Prevalence of Trauma among Women

- Intimate partner violence (IPV) is also common
  - About 12% in the last year (Straus & Gelles, 1986)
  - About 20-38% in lifetime (Tjaden & Thoennes, 2000)

- Up to 21% may experience IPV during pregnancy (Peterson et al., 1997; Rosen et al., 2007)
  - Higher rates during this time may be due to younger age, increased jealousy by partner

- IPV places women at risk for trauma symptoms (Jones, Hughes, & Unterstaller, 2001), although less is known about effects of emotional & psychological IPV
Trauma Symptoms and PTSD among Women

- US current prevalence rate of PTSD is 3.5%, 6.8% for lifetime rates (Kessler, Berglund et al., 2005; Kessler, Chiu et al., 2005)

- Women are at least 2X as likely to develop PTSD than men (Breslau et al., 1998; Kessler et al., 1995)
  - Current prevalence in women is ~5%, up to 12% lifetime (Resnick et al., 1993)
  - PTSD in women is more chronic (Breslau et al., 1998)
  - Complex forms resulting from ongoing *interpersonal victimization* more common in women & difficult to treat

- Rates of PTSD and trauma symptoms in women differ by type of trauma (e.g., sexual assault, physical abuse highest?)
Trauma and PTSD during Pregnancy

- Mixed results in terms of prevalence
  - Some suggest lower or similar rates (3.5%; Smith et al., 2006)
  - Others suggest higher rates (6-8%) in prenatal clinic samples (Loveland Cook et al., 2004) and upwards of 25% in low income, community samples (Rosen et al., 2007)

- Traumatic events may have different effects on pregnant women vs. non-pregnant women (Smith et al., 2006)

- Pregnancy may be a trigger or exacerbate symptoms: bodily experience, fear of childbirth, medical procedures during prenatal care, preparing to be mother

- Critical implications for the health and well being of the woman and baby
The Present Study

- In sum, certain traumatic events may be more likely to occur during pregnancy.
- Effects of current & past trauma may be heightened during this time, yet:
  - Less is known about the effects of trauma on women during pregnancy.
- Very little is known about trauma symptoms resulting from other forms of trauma not typically captured using a diagnostic approach (Criterion A).
- This study examined associations between various forms of interpersonal traumas on PTSD symptoms in high-risk pregnant women.
Participants

- 120 pregnant women (in last trimester) from community in southeastern Michigan
- Average 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% first time mothers
Participants

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

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

- Involvement in Social Services:
  - 88% WIC
  - 62% food stamps
  - 90% public health insurance
  - 20% public supplemental income
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 in last trimester of pregnancy at home (78%) or at research office (22%)
- 2 ½ to 3 hours
- Compensated with a $25 gift card
Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998)

- 28-item self-report inventory designed to assess experiences of five types of childhood maltreatment:
  - emotional, physical, and sexual abuse
  - emotional and physical neglect
- 5 items each per subscale, with scores ranging from 5-25 for each
  - 3 item minimization/denial scale not used in analyses
- Higher scores indicate greater severity of childhood maltreatment
Childhood Trauma Questionnaire

In the present study, coefficient alphas were:

- Emotional abuse = .91
- Physical abuse = .90
- Sexual abuse = .95
- Emotional neglect = .92
- Physical neglect = .84
- Total CTQ = .95

Inter-correlations ranged from $r = .35$ (sex abuse & physical abuse) to $r = .81$ (emotional abuse & emotional neglect)

Emotional abuse and neglect scales were combined for emotional maltreatment total; all others were retained
Conflict Tactics Scale – 2 (CTS-2; Straus, Hamby, & Warren, 2003)

- 78-item questionnaire designed to assess four types of intimate partner violence:
  - psychological, physical, sexual violence, as well as physical injuries resulting from violence
  - Only 33 items assessing victimization were used here

- Violence was assessed for multiple time periods; only IPV during the current pregnancy was used here

- Higher scores indicate greater IPV severity
In the present study, coefficient alphas were:

- Psychology violence = .79
- Physical violence = .67
- Sexual violence = .56
- Injuries from violence = .44
- Total Pregnancy DV = .84

Inter-correlations of subscales ranged from $r = .10$ (physical violence & sexual violence) to $r = .98$ (physical violence & injuries)

Physical violence & injury subscales were combined (alpha = .80); others were retained
PTSD Checklist-C (PCL-C; Weathers et al., 1993)

17-item self-report designed to assess DSM-IV PTSD symptoms:
- Intrusions/re-experiencing
- avoidance
- hyperarousal

Different cut-off scores have been suggested for diagnoses; this study used it to assess severity of symptoms (dimensional)

Higher scores indicate greater trauma symptoms
Recent study suggested 4 factors instead of 3 with an IPV sample (Krause et al., 2007); alphas in the present study were:

- Re-experiencing/intrusions = .83
- Avoidance = .61 (2 items)
- Dysphoria = .76
- Hyperarousal = .63 (2 items)
- Total PCL = .87

Inter-correlations ranged from $r = .17$ (avoidance & hyperarousal) to $r = .63$ (intrusion & dysphoria)

All scales were retained separately
## Results: Rates of Trauma

<table>
<thead>
<tr>
<th>Type of Abuse</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Emotional Abuse</td>
<td>68%</td>
</tr>
<tr>
<td>Child Physical Abuse</td>
<td>58%</td>
</tr>
<tr>
<td>Child Sexual Abuse</td>
<td>28%</td>
</tr>
<tr>
<td>Child Emotional Neglect</td>
<td>75%</td>
</tr>
<tr>
<td>Child Physical Neglect</td>
<td>49%</td>
</tr>
<tr>
<td>Physical and/or Sexual IPV during Pregnancy</td>
<td>24%</td>
</tr>
<tr>
<td>Psychological, Physical and/or Sexual IPV during Pregnancy</td>
<td>81%</td>
</tr>
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</table>
Results: Associations between Childhood Trauma and IPV

<table>
<thead>
<tr>
<th></th>
<th>Psych IPV</th>
<th>Physical IPV</th>
<th>Sexual IPV</th>
<th>Total IPV</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTQ Emotional</td>
<td>.25**</td>
<td>.18</td>
<td>.20*</td>
<td>.26**</td>
</tr>
<tr>
<td>CTQ Phy Abuse</td>
<td>.17</td>
<td>.25**</td>
<td>-.06</td>
<td>.18*</td>
</tr>
<tr>
<td>CTQ Phy Neg</td>
<td>.15</td>
<td>.02</td>
<td>.20*</td>
<td>.14</td>
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<tr>
<td>CTQ Sexual</td>
<td>.05</td>
<td>-.05</td>
<td>.17</td>
<td>.05</td>
</tr>
<tr>
<td>CTQ Total</td>
<td>.24*</td>
<td>.16</td>
<td>.18</td>
<td>.24*</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01.
## Results: Associations between Childhood Trauma & PTSD symptoms

<table>
<thead>
<tr>
<th>CTQ Emotional</th>
<th>Intrusions</th>
<th>Avoidance</th>
<th>Dysphoria</th>
<th>Hyperarousal</th>
<th>Total Sxs</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>.37**</td>
<td>.33**</td>
<td>.38**</td>
<td>.18</td>
<td>.42**</td>
</tr>
<tr>
<td>CTQ Phy Abuse</td>
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<td>.32**</td>
<td>.29**</td>
<td>.19*</td>
<td>.35**</td>
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<tr>
<td></td>
<td>.32**</td>
<td>.29**</td>
<td>.26**</td>
<td>.20*</td>
<td>.34**</td>
</tr>
<tr>
<td>CTQ Phy Neg</td>
<td>.27**</td>
<td>.27**</td>
<td>.11</td>
<td>.19*</td>
<td>.24**</td>
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<tr>
<td>CTQ Sexual</td>
<td>.42**</td>
<td>.35**</td>
<td>.37**</td>
<td>.20*</td>
<td>.44**</td>
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Results: Childhood Trauma & PTSD symptoms

<table>
<thead>
<tr>
<th></th>
<th>Standardized Beta</th>
<th>F-value</th>
<th>Adjusted $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step One:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-.25**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>-.06</td>
<td>4.47*</td>
<td>.06*</td>
</tr>
<tr>
<td><strong>Step Two:</strong></td>
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<tr>
<td>Emotional</td>
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<tr>
<td>Phy Abuse</td>
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<tr>
<td>Phy Neglect</td>
<td>.17</td>
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<tr>
<td>Sexual</td>
<td>.05</td>
<td>6.50**</td>
<td>.23**</td>
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## Results: Associations between IPV and PTSD symptoms

<table>
<thead>
<tr>
<th></th>
<th>Intrusions</th>
<th>Avoidance</th>
<th>Dysphoria</th>
<th>Hyper-arousal</th>
<th>Total Sxs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Psych IPV</strong></td>
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<td></td>
<td></td>
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<tr>
<td>Physical IPV</td>
<td>.36**</td>
<td>.18</td>
<td>.35**</td>
<td>.18</td>
<td>.38**</td>
</tr>
<tr>
<td>Sexual IPV</td>
<td>.17</td>
<td>.09</td>
<td>.31**</td>
<td>.05</td>
<td>.24**</td>
</tr>
<tr>
<td>Total IPV</td>
<td>.32**</td>
<td>.17</td>
<td>.35**</td>
<td>.12</td>
<td>.35**</td>
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Results: IPV & PTSD symptoms

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<tr>
<td>Age</td>
<td>-.25**</td>
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<tr>
<td>Income</td>
<td>-.06</td>
<td>4.48*</td>
<td>.06*</td>
</tr>
<tr>
<td><strong>Step Two:</strong></td>
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<tr>
<td>Psychological</td>
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<td></td>
</tr>
<tr>
<td>Physical</td>
<td>-.11</td>
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</tr>
<tr>
<td>Sexual</td>
<td>-.08</td>
<td>5.30**</td>
<td>.16**</td>
</tr>
</tbody>
</table>

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## Results: Both Types of Trauma & PTSD symptoms

<table>
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</tr>
<tr>
<td>Age</td>
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<td></td>
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</tr>
<tr>
<td>Income</td>
<td>-.06</td>
<td>4.47*</td>
<td>.06*</td>
</tr>
<tr>
<td><strong>Step Two:</strong></td>
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<td></td>
</tr>
<tr>
<td>Total IPV</td>
<td>.32**</td>
<td>7.75**</td>
<td>.15**</td>
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<tr>
<td><strong>Step Three:</strong></td>
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<tr>
<td>Total CTQ</td>
<td>.39**</td>
<td>12.36**</td>
<td>.29**</td>
</tr>
</tbody>
</table>

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Conclusions

It is critically important to assess, identify, and treat emotional & psychological forms of interpersonal violence

– Currently they do not meet criterion A1, which requires a threat to physical integrity
– Threats to emotional integrity (self) appear to result in PTSD symptoms, though the syndrome may look different?
– More research is needed to examine clusters and severity of symptoms after exposure to psychological trauma, especially of the interpersonal, chronic type

Revision of A1 should be further considered

Criterion A2 likely still applies (“fear, helplessness, & horror”)
Conclusions

Both types of interpersonal violence (childhood maltreatment & adult IPV) were important predictors.

Would results have been similar in non-pregnant women?
  – Pregnancy is a unique, highly “relational” time

Providers working with low-income pregnant women need to assess broad range of traumatic experiences & sequelae.
Conclusions

Limitations

- Relatively small sample (but a unique one)
- High rates of trauma overall, but restricted range of more severe types, especially with current IPV

Future Research

- Continue to look more closely at effects of different types of trauma
- Examine possible mediators & moderators
- Use the PCL both dimensionally & categorically with appropriate cut-offs
- Examine post-partum outcomes with follow-up data
Acknowledgements

We are enormously grateful to the families participating in this study who allowed us to visit their homes and learn about their circumstances.

We are also very grateful to the graduate and undergraduate research assistants who helped collect these data.

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Continuing Medical Education Commercial Disclosure Requirement

I, Alissa Huth-Bocks, have no commercial relationships to disclose.