Promoting Resilience across the Family System: Effects of the Pregnant Moms’ Empowerment Program

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• Understand
  • Mechanisms that promote resilience and reduce risk for psychopathology in the context of childhood traumatic stress

• Examine
  • Pathways of risk and resilience among families and children exposed to adverse events

• Inform
  • Evidence-based interventions for youth and families exposed to potentially traumatic events
Defining Resilience

- The **capacity** to **navigate** psychological, social, cultural, and physical **resources** that sustain **well-being** in the midst of **adversity**

- The **ability** to **secure** resources, increasing the likelihood to **overcome** and **prosper** in the context of adversity

- Resilience is **multi-systemic**:  
  - Individual  
  - Family  
  - Peers  
  - Neighborhoods/Communities

(Howell et al., 2018; Schaefer et al., 2021)
Current Research in Resilience

- Studying **resilience** across various **contexts and populations**:
  - Emerging adults with a history of **polyvictimization**
  - School age children exposed to **family violence**
  - Mother-child **dyads** experiencing **co-occurring adversities**
  - **Bereaved** youth
  - Women experiencing **intimate partner violence** during pregnancy
Intimate Partner Violence (IPV)

- **Threatened** or **actual** physical, sexual, or psychological **aggression** by a **romantic** partner
- **One in four** US women experience IPV in their lifetime
- Tennessee has some of the **highest rates of IPV** in the US
- Memphis has one of the **highest rates in the state**

(Ali et al., 2016; Breiding et al., 2015; Smith et al., 2017).
Impact of IPV on the Family System

• May have **ripping effects** across the family system

• Potential **negative** effects on **parenting and mental health** due to stress associated with IPV

• Essential to understand how maternal IPV affects **maternal health, infant functioning** and **mother-child** interactions

(Muze, 2013; Renk et al., 2016; Sypher et al., 2022)
IPV during Pregnancy

• The prenatal period is a time of **heightened risk** for IPV

• Intergenerational **cycles** of risk

• Potentially one of the best socially **built-in** frameworks for **prevention** and **intervention**
  - Interventions during pregnancy may support **maternal functioning** and **infant health**

(Howell et al., 2017; Murray et al., 2022; Muze, 2013)
Why Focus on Pregnancy?

- **Physical Health Consequences**
  - Lack of prenatal care
  - Health problems
  - Hospitalizations
  - Preterm delivery
  - Low infant birthweight
  - Infant intensive care unit

- **Psychological Health Consequences**
  - Depression
  - Posttraumatic stress
  - Sleeping difficulties
  - Stress
  - Infant dysregulation

(Alhusen et al., 2015; Chisholm et al., 2017; Hill et al., 2016; Sharkey et al., 2016)
How can the health effects of IPV in pregnancy be explained and understood?

What’s missing?

• Most research has been cross-sectional

• Most work has failed to account for psychological and social factors

• Most services focus on safety planning or crisis intervention

Most treatments are oriented toward specific pathologies, with little transdiagnostic work
How can we use a biopsychosocial framework to better understand intergenerational effects of IPV during pregnancy?

- Relatively little longitudinal work
- Gaps in the developmental periods that have been studied
- Heavy focus on parenting behavior to the neglect of other features of the early parent-child relationship
Development of the Pregnant Moms’ Empowerment Program (PMEP)

Theoretical Framework

• **Cognitive Behavioral Therapy** to address depression and posttraumatic stress

• **Empowerment Theory** to enhance self-efficacy, reduce re-victimization, and increase positive parenting

• **Social-ecological Resilience** to promote positive outcomes and successful functioning at multiple levels of the social ecology

(Hollon & Beck, 2013; Ungar, 2011; Zimmerman, 2000)
PMEP Format and Structure

- 5-week, manualized group program
- Designed to integrate psychoeducation, interactive learning, and group-based discussion

Content covers two key domains
1. Violence and mental health
2. Parenting and infant development
Who Can Participate in PMEP?

Women who:

- Are 10-30 weeks pregnant
- Experienced IPV in the past year
- Speak English fluently
- 16 years of age or older
To date, 137 pregnant women have participated in the program. 

**PMEP:** n = 70  
**Control:** n = 67  

Women ranged in age from **17 to 41 years** ($M = 27.29$; $SD = 6.00$).
### Participants

- On average, **21 weeks pregnant** (SD = 8.61) and had approximately **2 children** (M=1.91, SD=1.77)
- **74.6%** single, separated, or divorced
- **80%** single mother
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- **Average monthly income** $709.89 (SD = 628.51)

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
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<tbody>
<tr>
<td>Average of one pregnancy complication</td>
<td>(e.g., early labor, hypertension; M = 1.20; SD = 1.15)</td>
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<tr>
<td>Smoking at baseline</td>
<td>19.7% smoking at baseline</td>
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<tr>
<td>Alcohol since conception</td>
<td>9.9% used alcohol since conception</td>
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<tr>
<td>Average of 167.8 acts of IPV in past year</td>
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Results: PTSS Reexperiencing and Avoidance

Childhood adversity
\[ \beta = .22, p = .011 \]

Adulthood adversity
\[ \beta = .18, p = .022 \]

Psychological IPV
\[ \beta = .31, p = .003 \]

PTSS: Reexperiencing
\[ F(5, 128) = 10.76, p < .001, R^2 = 29.6\% \]

PTSS: Avoidance
\[ F(5, 128) = 6.76, p < .001, R^2 = 21.0\% \]

Analyses conducted using linear regression modeling in SPSS
Results: PTSS Negative Cognitions/Mood and Hyperarousal

Childhood adversity
β = .22, p = .018

Psychological IPV
β = .29, p = .011

PTSS: Negative Mood/Cognitions
$F(5, 128) = 4.59$
$p < .01, R^2 = 15.2\%$

PTSS: Hyperarousal
$F(5, 128) = 4.24$
$p < .01, R^2 = 14.2\%$

Analyses conducted using linear regression modeling in SPSS
Results: Resilience

- IPV Severity
- Childhood Trauma
- Stressful Events in Adulthood
- Familial Support
- Friend Support
- Parenting Attitudes
- Parenting Confidence
Notable Treatment Effects: Intimate Partner Violence

- **T1-T2**: 12.0% fewer total incidents of IPV
- **T2-T3**: 9.0% fewer total incidents of IPV
- **T3-T4**: 45.3% fewer total incidents of IPV

Graph:
- **Total IPV**
- **T2**
  - PMEP: IRR = 0.90*
  - Control
- **T3**
  - PMEP: IRR = 0.89**
  - Control
- **T4**
  - PMEP
  - Control: IRR = 0.51**
Notable Treatment Effects: Depression

27.0% fewer women in the PMEP condition were in the clinical range for depression at T2 as compared to 10.0% fewer in the control group.
Notable Findings: PTSS and Resilience

**PTSS**

*No significant differences emerged for PTSS*

**Resilience**

Effects of treatment on resilience trended toward significance at T2, with a medium effect size

\( \beta = 4.85, p = .071; d_r = 0.49 \)
Results Highlight

• Participating in PMEP was associated with significantly lower rates of IPV revictimization.

• At post-test, the effects of PMEP on women’s depressive symptoms were statistically significant, clinically meaningful, and associated with clinically reliable improvement.

• Lasting effects were evident across mental health and revictimization outcomes, underscoring the utility of short-term, targeted treatment.
### Expectations

Women who participated in PMEP reported more developmentally appropriate expectations of children at the immediate post-test assessment

*Large effect size*  
\( \text{d}_r = 0.82 \)

### Empathy

Women who participated in PMEP reported more empathy towards children at the immediate post-test assessment

*Medium effect size*  
\( \text{d}_r = 0.47 \)

### Corporal Punishment

No differences between groups in use of corporal punishment

### Parent-Child Roles

No differences between groups in attitudes about parent-child roles
Treatment Effects – Parenting

T1 Expectations of Children

- Low-risk: 1%
- Medium-risk: 63%
- High-risk: 36%

T2 Expectations of Children

- Low-risk: 3%
- Medium-risk: 79%
- High-risk: 18%
Control Condition

T1 Expectations of Children
- Low-risk: 72%
- Medium-risk: 24%
- High-risk: 3%

T2 Expectations of Children
- Low-risk: 3%
- Medium-risk: 70%
- High-risk: 27%
Treatment Effects – Parenting

T1 Empathy towards Children
- High-risk: 40%
- Medium-risk: 57%
- Low-risk: 3%

T2 Empathy towards Children
- High-risk: 34%
- Medium-risk: 62%
- Low-risk: 3%
Control Condition

T1 Empathy towards Children
- Low-risk: 7%
- Medium-risk: 45%
- High-risk: 48%

T2 Empathy towards Children
- Low-risk: 53%
- Medium-risk: 44%
- High-risk: 7%
Preliminary Results: Infant Development

**Improved socioemotional** development

$t (16) = -1.51, \ d = .94$

*Large effect size*

**Enhanced language** development

$t (16) = -1.69, \ d = 1.15$

*Large effect size*

No significant difference in cognitive development
Key Takeaways

• Importance of targeting the family system

• Brief, cost-effective intervention has clear clinical value for pregnant women with recent IPV exposure

• Strategies to promote intergenerational resilience:
  • Improve parenting practices and confidence
  • Strengthen the quality of social supports
Next Steps

- Examine the impact of COVID-19 on intervention participation and mother-child outcomes
- Conduct analyses on observational data
- Assess a Spanish language version of PMEP
Thank you!

Community partners
Student researchers
Funding agencies
Women & children who participated

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