An Examination of Mother-Child Interactions for Mothers Participating in a Parenting Education Series

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Overview

• Mother-child Interactions & Parenting Education
  • Maternal Play Behaviors
  • Maternal Stress

• Review of OPEC Parenting Series

• Research Study
  • Aims
  • Methods
  • Results

• Limitations & Next Steps
Mother-Child Interactions and Child Development

- Sensitive and responsive mother-child interactions
  - Language (Baumwell & Tamis-LeMonda, 1997)
  - Behavior (Mintz et al., 2011)
  - Brain development (NSCDC, 2007)
  - Stress response system (Gunnar & Quevedo, 2007)

- Maternal Harshness (e.g., Bradley & Corwyn, 2007; McElwain & Volling, 2004; NICHD ECCRN, 2003)
  - Lower academic success,
  - Social skills,
  - Behavior regulation.

http://sarahockwell-smith.com/tag/daily-mail/
Maternal Stress: Cortisol

- High maternal cortisol levels
  - Higher depression anxiety
  - Lower quality of parenting (Essex et al., 2002; Feldman et al., 2009; Gotlib et al., 2007; Gunnar & Donzella, 2002; Kiel & Buss, 2013).

- Higher mother’s cortisol reactivity linked to harsh parenting
  - More so when child has fewer self-regulatory skills (Martorell & Bugental, 2006)
What do Parenting Education Classes Do?

Positive Parenting

Negative Health Behaviors

(Arkan et al, 2013; Gardner et al, 2006; Hutchings et al., 2007; Marcynyszyn et al., 2010; Reed et al., 2002;)

(Oregon State University)
Oregon Parenting Education Collaborative 2010-present

... believe that parents are their children’s first and most important teachers, and that investment in strong parenting is a critical strategy for ensuring that all children are ready to learn.

GOALS (selected)

• Increase the capacity of parents to play a positive, primary role in the care, nurturing and development of their children in their first years

• Strengthen families while reducing the potential for child abuse and neglect

www.oregoncf.org/grants-scholarships/grants/parent-ed-collaborative
As of spring 2015...

• 5,297 parents attended 607 evidence-based class series funded by OPEC.
• Over 11,500 family programs included workshops, family activities and parent support events.
• Grantees leveraged more than $10 million in new funding or in-kind contributions.

http://www.oregoncf.org/grants-scholarships/grants/parent-ed-collaborative
2013-2014 outcomes for OPEC parenting series

Parent Report

• Improvements in Parenting Skills
  • Knowing normal behavior for child’s age level
  • Finding positive ways to guide and discipline my child
  • Dealing with the day-to-day stresses of parenting
  • Showing my child love and affection frequently

• Improvements in Child Behavior
  • Willing to follow limits and rules
  • Shows concern for others
  • Gets along with others

Sektnan & Rennekamp, 2015
Research Aims

Are there changes in...

a. ...Maternal Stress (biomarker: cortisol)
b. ...Maternal Play Behaviors (observed)
c. ...Child Play Behaviors (coming soon)

....related to participation in OPEC Parenting Series
Methods

• 5 participating hubs
• Recruited from first class in series \( (n = 20_{dyads}) \)
• 2\textsuperscript{nd} week of parenting series & final week of parenting series
  • Standardized Play Task
    • Mother saliva samples and mother-child play (clean-up and free play)
  • Mother Questionnaires
## Mother Characteristics

<table>
<thead>
<tr>
<th>Mother age</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td></td>
</tr>
<tr>
<td>race/ethnicity</td>
<td>11% AIAN</td>
</tr>
<tr>
<td>Mother education</td>
<td>21% some high</td>
</tr>
<tr>
<td>Mother marital status</td>
<td>61% married</td>
</tr>
</tbody>
</table>

### Maternal Depression

- **Low**
- **Moderate**
- **High**

### Bar Chart

- **Y-axis**: % of sample
- **X-axis**: Maternal Depression
- **Legend**:
  - Low
  - Moderate
  - High
### Child Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Age</td>
<td>50 months</td>
</tr>
<tr>
<td>Child Gender</td>
<td>42% male</td>
</tr>
<tr>
<td>Child race/ethnicity</td>
<td>21% AIAN; 15% Latino</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Child ADHD symptoms</th>
<th>% of sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>37</td>
</tr>
<tr>
<td>Moderate</td>
<td>29</td>
</tr>
<tr>
<td>High/Clinical</td>
<td>24</td>
</tr>
</tbody>
</table>

![Bar chart showing percentage of child ADHD symptoms](chart.png)
### Household/Family Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receives Public Assistance</td>
<td>74%</td>
</tr>
<tr>
<td><strong>WIC</strong></td>
<td>86%</td>
</tr>
<tr>
<td><strong>Food Stamps</strong></td>
<td>86%</td>
</tr>
<tr>
<td><strong>Health Insurance</strong></td>
<td>57%</td>
</tr>
<tr>
<td>Child eats 3 meals a day</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Child gets read to</td>
<td>Sometimes</td>
</tr>
<tr>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>16% &lt;$500/month</td>
<td></td>
</tr>
<tr>
<td>21% $500 - $999/month</td>
<td></td>
</tr>
<tr>
<td>21% $1,000 - $1,999/month</td>
<td></td>
</tr>
<tr>
<td>32% $2,000 - $3,999/month</td>
<td></td>
</tr>
<tr>
<td>10% $4,000 - $5,999/month</td>
<td></td>
</tr>
</tbody>
</table>
Household/Family Characteristics

- **Household Chaos**
  - Low
  - Moderate (60%)
  - High

- **Family Functioning***
  - Low
  - Moderate (35%)
  - High (55%)

*High score indicates good family functioning*
Are there changes in...

a. Maternal Stress or
b. Maternal Play Behaviors

...related to participation


Child Play Behaviors
(coming soon)
Standardized Play Task
Maternal Stress

Stress (cortisol) reactivity increased

$r = .27; t(8) = -1.227, p = .25; n = 9$
Mother Behaviors in Play

**Stimulating Environment**
- Facilitate learning,
- engagement
- development,
- & success.

**Parent Sensitivity**
- Child centered
- Awareness
- Flexible
- responsive

**Parent Detachment**
- Inattentive
- perfunctory
- Flat affect
- Uninterested
Dyad Behaviors in Play

Affective mutuality/felt security

- Open Communication
- Warmth
- Mutual positive affect and enjoyment
- Engagement
- Warm, close relationship
Maternal Play Behaviors: Challenging Task

- Stimulating Environment
- Parent Sensitivity
- Parent Detachment*
- Affective Mutuality

*p = .26
*p = .16

n = 10

*High score indicates lower parental detachment
Maternal Play Behaviors: Free Play

- Stimulating Environment
- Parent Sensitivity
- Parent Detachment*
- Affective Mutuality

Time 1 and Time 2

*High score indicates lower parental detachment

n = 10
Summary

• Reaching a broad audience
  • Varying types of families
  • Child behavioral challenges

• Maternal stress *increases* during play task at *end of series*
Summary: Parenting Behaviors

- Some alignment between parent report (OPEC) and observed parent behavior in **Challenging Task**
  - OPEC report: *Showing my child love and affection frequently*
    - Current study: **Mother Detachment**
  - OPEC report: *Finding positive ways to guide and discipline my child*
    - Current study: **Stimulating Environment**

- No changes in mother sensitivity or dyad behavior.

- No behavioral changes in **Free Play**
Limitations

• Very small sample size—interpret with caution.
• Findings are *trends* in data
• Data analyses in progress—results not final

Next Steps

• Further investigation as to how family characteristics may explain differences in effect of parenting series
  • Moderating effects?
  • Parenting curriculum
  • Length of program
• Replication
  • Increase sample size
Thank you!

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www.searchresearchlab.com

References available upon request