EARLY HEAD START
Effects of Fathers, Neighborhoods and Family Structure on Child and Program Outcomes

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NIHSDA TRAINING CONFERENCE
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National Evaluation Early Head Start

Currently

• 664 programs
• 55,000 low income families

National evaluation

• 3,001 families randomly assigned
  - 1,513 to Early Head Start
  - 1,488 to other child care program
Highlights of the EHS Research and Evaluation Design

17 research sites

- Outcome data: 14, 24, 36, 48-60 months
- Service use data: 6, 15, and 26 months
  - After random assignment
  - And at EHS program exit
- Interviews with fathers: 24, 36, 48-60 months
- Site visits and surveys of program staff
Sample Characteristics (n = 680)

- Married to FC's Mother
- No Longer Married to FC's Mother
- Never Married
- Married to Another
- No Longer Married to Another
Sample Characteristics (n = 680)

Father Type

- Average age of child at time of 36-month birthday related father interview was 40 months (SD = 3 months)
- Average age of focus child’s mother at time of 36-month birthday related father interview was 26 years (SD = 5 years)

Father Type:

- Biological Father (83%)
- Adoptive/Stepfather (9%)
- Mother’s Partner (8%)
Sample Characteristics (n = 680)

Father’s Ethnicity

- Father’s education and income
  - Fathers averaged 12 years of education (SD = 3 years)
- Fathers’ average income in the month prior to the interview was $1,700 (SD = $1,084)
Children’s Risky Rearing Environments

- Parental history of regulatory system dysfunction
- Parental history of psychopathology
  - Antisocial behavior disorder and aggression
  - Depression
  - Alcoholism and other drug abuse
- Parental history of relationship disturbances
- Parental poor value structures
- Parental cognitive deficiencies
- Family low socioeconomic status
- Family residence in risk aggregated neighborhoods

Fitzgerald, Puttler, Mun & Zucker, 2000
Children’s Risky Behaviors

- Self regulatory system dysfunction
  - difficult temperament
  - disorganized attachment
  - externalizing-internalizing problem behavior
- Parent-child relationship disturbance
- Internal schemas/representational models for
  - Alcohol use
  - Alcohol related problem behaviors
- Poor value structure
- Cognitive deficiencies
- High risk peer networks

Fitzgerald, Puttler, Mun & Zucker, 2000
Research Questions

• What are the patterns of paternal antisocial behavior at 36 months in EHS eligible families?

• Does paternal antisocial behavior predict child behavioral and cognitive functioning?

• Does paternal antisocial behavior predict maternal functioning?
Father Antisocial Behavior Scale

- Have you ever been expelled from school?

- Have you ever been fired or laid off from a job because of behavior, attitude, or work performance?

- Have you ever been put in jail, arrested or convicted of a crime, other than drunk driving?

- Have you ever had a drinking or drug problem or have other people thought you had one?
Father Antisocial Behavior

- Expulsion: % No 71, % Yes 29
- Lost Job: % No 81.2, % Yes 18.8
- Arrested: % No 70.3, % Yes 29.7
- Substance Abuse: % No 77.4, % Yes 22.6
Father Antisocial Behavior

- 86.1% Low Risk (≤ 2 behaviors)
- 13.9% High Risk (≥ 3 behaviors)
Father Reported Child Aggressive Behavior

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Father Constructs</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Antisocial Risk</td>
<td>.17</td>
<td>.38</td>
<td>.02</td>
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<tr>
<td>Family Conflict</td>
<td>2.79</td>
<td>.93</td>
<td>.14**</td>
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<tr>
<td>Depression</td>
<td>.06</td>
<td>.09</td>
<td>.03</td>
</tr>
<tr>
<td>PSI: Parental Distress</td>
<td>.19</td>
<td>.10</td>
<td>.10*</td>
</tr>
<tr>
<td>PSI: P-C Dysfunction</td>
<td>.46</td>
<td>.13</td>
<td>.18**</td>
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<tr>
<td><strong>Mother Constructs</strong></td>
<td></td>
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</tr>
<tr>
<td>Child Aggression</td>
<td>.19</td>
<td>.05</td>
<td>.20**</td>
</tr>
<tr>
<td>Family Conflict</td>
<td>.48</td>
<td>.94</td>
<td>.02</td>
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<tr>
<td>Depression</td>
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<td>PSI: Parental Distress</td>
<td>.05</td>
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<tr>
<td>PSI: P-C Dysfunction</td>
<td>.04</td>
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Model $R^2 = .24$, Adjusted $R^2 = .21$; $\Delta R^2 = .10$ for fathers’ predictors, $\Delta R^2 = .05$ for mothers’ predictors and $\Delta R^2 = .04$ for demographic controls (n=451); * $p<.05$, **$p<.01$
### Mother Reported Child Aggressive Behavior

<table>
<thead>
<tr>
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<th>β</th>
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<td>.18*</td>
</tr>
<tr>
<td><strong>Mother Constructs</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family Conflict</td>
<td>1.63</td>
<td>.94</td>
<td>.08</td>
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<tr>
<td>Depression</td>
<td>.22</td>
<td>.08</td>
<td>.14**</td>
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<td>.10*</td>
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<tr>
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<td>.61</td>
<td>.09</td>
<td>.32**</td>
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</table>

Model $R^2 = .3$, Adjusted $R^2 = .27$; $\Delta R^2 = .27$ for mothers’ predictors, $\Delta R^2 = .01$ for fathers’ predictors and $\Delta R^2 = .01$ for demographic controls (n=451); * $p<.05$, ** $p<.01$
Father Antisocial Behavior and Child Aggression

p<.10, p<.05
Father Antisocial Behavior and Child Outcomes

Bayley BBRS Orient/Engage
Bayley BBRS Emotion Regulation

Low ASB
High ASB

p<.10, p<.05
Father Antisocial Behavior and Child Cognitive Outcomes

p<.10, p<.05
Fathers Who are High in Antisocial Behavior

- Have children who perform more poorly on measures of emotion regulation and receptive vocabulary/verbal ability

- Report more family conflict, parental distress, and poor father-child relationships

- Fitzgerald, McKelvey, Montañez, & Schiffman (2003)
Research Questions

• Does father antisociality impact child development and family level outcomes?

• Does living in a neighborhood characterized by violence impact child development and family level outcomes?

• In what ways do antisocial behaviors and risky neighborhood environments interact to impact outcomes?
Possible Transactional Linkages in a Primary Family System Consisting of a Mother, a Father, and their Children

Risk in the Environment

• Have you heard or seen a violent crime take place in your neighborhood?
• Have you known someone who was a victim of a violent crime in your neighborhood?
• Have you been a victim of a violent crime in your neighborhood?
• Have you been robbed, mugged, or attacked in the past year?
• Have you had a relative or close friend in jail?
• Has someone you were close to died or been killed in the last year?
Environmental Risk

82.2% were in the low environmental risk (less than 3 risks) category

17.8% were in the high environmental risk (3 or more risks) category
## Father Antisocial and Environmental Risk

<table>
<thead>
<tr>
<th>Father Risk</th>
<th>Environmental Risk: No or Low</th>
<th>Environmental Risk: High</th>
</tr>
</thead>
<tbody>
<tr>
<td>No or Low Risk for</td>
<td>438</td>
<td>79</td>
</tr>
<tr>
<td>Antisocial Behaviors</td>
<td>(71.7%)</td>
<td>(12.9%)</td>
</tr>
<tr>
<td>High Risk for Antisocial</td>
<td>63</td>
<td>31</td>
</tr>
<tr>
<td>Behaviors</td>
<td>(10.3%)</td>
<td>(5.1%)</td>
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</tbody>
</table>
Child Outcomes (36 months)

**Table 1. Early Head Start 36 Month Data.**

The effect of four risk categories on child outcomes.

NR = No risk; FR = Father risk; NeR = Neighborhood Risk; FR/NeR = Father and Neighborhood Risk

<table>
<thead>
<tr>
<th>Child Outcomes</th>
<th>NR</th>
<th>FR</th>
<th>NeR</th>
<th>FR/NeR</th>
<th>F</th>
<th>df</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td>Child Persistence with Mother</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavior Problems Father Rating</td>
<td>18.00</td>
<td>20.61</td>
<td>21.47</td>
<td>20.88</td>
<td>3.60</td>
<td>3.646</td>
<td>.013</td>
</tr>
<tr>
<td>Puzzle</td>
<td>5.11</td>
<td>5.04</td>
<td>4.75</td>
<td>4.84</td>
<td>3.56</td>
<td>3.574</td>
<td>.014</td>
</tr>
<tr>
<td>Child Engagement with Mother</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>18.00</td>
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<td>4.84</td>
<td>3.56</td>
<td>3.574</td>
<td>.014</td>
</tr>
<tr>
<td>Child Persistence with Mother</td>
<td>4.68</td>
<td>4.50</td>
<td>4.16</td>
<td>4.04</td>
<td>6.24</td>
<td>3.572</td>
<td>.000</td>
</tr>
<tr>
<td>Bayley Scale</td>
<td>91.96</td>
<td>92.33</td>
<td>87.16</td>
<td>87.36</td>
<td>3.60</td>
<td>3.365</td>
<td>.013</td>
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<tr>
<td>PPVT Standard Score</td>
<td>86.56</td>
<td>83.25</td>
<td>77.50</td>
<td>74.50</td>
<td>10.20</td>
<td>3.504</td>
<td>.000</td>
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</tbody>
</table>

*a Indicates which means are different from the no risk condition*
## Mother Outcomes

### Table 2. Early Head Start 36 Month Data.

The effect of four risk categories on mothers’ ratings and mothers’ behavior.

NR=No Risk; FR=Father Risk; NeR = Neighborhood Risk; Fr/NeR = Father and Neighborhood Risk

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>NR</th>
<th>FR</th>
<th>NeR</th>
<th>FR/NeR</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Conflict (FES)</td>
<td>1.67</td>
<td>1.85a</td>
<td>1.73</td>
<td>1.59</td>
<td>2.68</td>
<td>3,607</td>
<td>.046</td>
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<tr>
<td>HOME Total Score</td>
<td>28.14</td>
<td>26.90</td>
<td>26.18a</td>
<td>25.48a</td>
<td>7.15</td>
<td>3,604</td>
<td>.000</td>
</tr>
<tr>
<td>HOME Internal physical</td>
<td>8.00</td>
<td>7.27a</td>
<td>7.07a</td>
<td>7.88</td>
<td>13.22</td>
<td>3,592</td>
<td>.000</td>
</tr>
<tr>
<td>HOME External physical</td>
<td>12.60</td>
<td>11.59a</td>
<td>10.74a</td>
<td>11.30a</td>
<td>17.80</td>
<td>3,594</td>
<td>.000</td>
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<tr>
<td>HOME Warmth</td>
<td>2.66</td>
<td>2.42</td>
<td>2.49</td>
<td>2.40</td>
<td>3.11</td>
<td>3,599</td>
<td>.026</td>
</tr>
<tr>
<td>CESD Depression</td>
<td>7.75</td>
<td>11.28a</td>
<td>8.86</td>
<td>11.38a</td>
<td>6.82</td>
<td>3,649</td>
<td>.000</td>
</tr>
<tr>
<td>3 Bag Intrusiveness</td>
<td>1.46</td>
<td>1.60</td>
<td>1.77a</td>
<td>1.74</td>
<td>4.59</td>
<td>3,574</td>
<td>.0003</td>
</tr>
<tr>
<td>3 Bag Negative Regard</td>
<td>1.22</td>
<td>1.29</td>
<td>1.39</td>
<td>1.48</td>
<td>2.89</td>
<td>3,574</td>
<td>.034</td>
</tr>
<tr>
<td>3 Bag Supportiveness</td>
<td>4.08</td>
<td>3.98b</td>
<td>3.45ab</td>
<td>3.91</td>
<td>10.23</td>
<td>3,574</td>
<td>.000</td>
</tr>
<tr>
<td>Positive Discipline</td>
<td>3.16</td>
<td>3.00b</td>
<td>3.66ab</td>
<td>3.59</td>
<td>3.32</td>
<td>3,654</td>
<td>.019</td>
</tr>
<tr>
<td>Physical Punishment</td>
<td>.39</td>
<td>.37</td>
<td>.55a</td>
<td>.53</td>
<td>3.59</td>
<td>3,654</td>
<td>.014</td>
</tr>
</tbody>
</table>

*a* Indicates which means are different from the no risk condition

*b* Indicates which means are different from each other
## Father Outcomes

### Table 3. Early Head Start 36 Month Data.
The effect of four risk categories on fathers’ ratings and fathers’ behavior.
NR = No risk; FR = Father risk; NeR = Neighborhood Risk; FR/NeR = Father and Neighborhood Risk

<table>
<thead>
<tr>
<th>Risk Category</th>
<th>NR M</th>
<th>FR M</th>
<th>NeR M</th>
<th>FR/NeR M</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Conflict (FES)</td>
<td>1.37</td>
<td>1.56a</td>
<td>1.59a</td>
<td>1.64a</td>
<td>8.09</td>
<td>3,624</td>
<td>.000</td>
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<tr>
<td>Parental Distress (PSI)</td>
<td>18.62</td>
<td>20.61</td>
<td>21.47a</td>
<td>20.88</td>
<td>9.23</td>
<td>3,649</td>
<td>.000</td>
</tr>
<tr>
<td>Traditional Attitudes</td>
<td>15.00</td>
<td>14.98a</td>
<td>16.71a</td>
<td>16.71a</td>
<td>8.59</td>
<td>3,649</td>
<td>.000</td>
</tr>
<tr>
<td>CES-D Depression</td>
<td>3.90</td>
<td>7.20a,b</td>
<td>6.36a,b</td>
<td>11.61a,b</td>
<td>30.98</td>
<td>3,652</td>
<td>.000</td>
</tr>
<tr>
<td>Physical Punishment(^1)</td>
<td>.68</td>
<td>.73</td>
<td>.80</td>
<td>1.06a</td>
<td>3.03</td>
<td>3,655</td>
<td>.029</td>
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<tr>
<td>Perceived Disagreement(^2)</td>
<td>1.60</td>
<td>2.22</td>
<td>2.24a</td>
<td>3.03a</td>
<td>5.33</td>
<td>3,649</td>
<td>.001</td>
</tr>
</tbody>
</table>

\(^a\) Indicates which means are different from the no risk condition

\(^b\) Indicates which means are different from each other
Family Interactions: Puzzle Task

Table 4. Early Head Start 36 Month Data.
The effect of four risk categories on child outcomes on parent child interactions during the Puzzle task.

<table>
<thead>
<tr>
<th>Child Outcomes</th>
<th>NR M</th>
<th>FR M</th>
<th>NeR M</th>
<th>FR/NeR M</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother Supportiveness</td>
<td>4.80</td>
<td>4.56</td>
<td>4.18a</td>
<td>4.52</td>
<td>5.32</td>
<td>3,572</td>
<td>.001</td>
</tr>
<tr>
<td>Quality of Assistance</td>
<td>3.83</td>
<td>3.53</td>
<td>3.32a</td>
<td>3.36</td>
<td>4.91</td>
<td>3,571</td>
<td>.002</td>
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<tr>
<td>Intrusiveness</td>
<td>2.44</td>
<td>2.40</td>
<td>2.87a</td>
<td>2.68</td>
<td>2.89</td>
<td>3,573</td>
<td>.035</td>
</tr>
<tr>
<td>Detachment</td>
<td>1.44</td>
<td>1.60</td>
<td>1.92a</td>
<td>1.80</td>
<td>7.78</td>
<td>3,573</td>
<td>.000</td>
</tr>
<tr>
<td>Father Supportiveness</td>
<td>4.66</td>
<td>4.36</td>
<td>3.86a</td>
<td>4.22</td>
<td>3.24</td>
<td>3,246</td>
<td>.023</td>
</tr>
<tr>
<td>Intrusiveness</td>
<td>2.57</td>
<td>2.45</td>
<td>3.29a</td>
<td>2.78</td>
<td>2.73</td>
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Research Questions

Identified levels of influence

- Individual risk—paternal ASB
- Neighborhood risk—violence exposure

Now: family contributions

Do families independently contribute to risk

OR

Can families be characterized as “types”?
Clusters

Standardized scores presented
Family Outcomes: Family Conflict

p ≤ .001
≠ group mean is significantly different
Family Outcomes: PSI – Parental Distress

p ≤ .001
≠ group mean is significantly different
+ group means are equal to each other but significantly different from others
Family Outcomes:
PSI – Parent-Child Dysfunctional Interaction

p ≤ .001
+ group means are equal to each other but significantly different from others
Child Outcomes: CBCL - Aggression

- p < .001
- ≠ group mean is significantly different
Child Outcomes:
Bayley Scales – Mental Development Index

- Maternal Depression
- Neighborhood Risk
- Healthy Family
- Paternal ASB

non-significant
Child Outcomes: Bayley Behavior Rating Scales – Orientation/Engagement

$p < .10$

* Means are significantly different from one another, but not other groups
Child Outcomes: Bayley Behavior Rating Scales – Emotion Regulation

- Maternal Depression
- Neighborhood Risk
- Healthy Family
- Paternal ASB

\[ p < .001 \]
\[ \neq \] group mean is significantly different
Child Outcomes: Peabody Picture Vocabulary Test – Standard Score

+3 +3 group means are equal to each other but significantly different from group 3 (healthy family)

p ≤ .001
Father, Neighborhood and Family Impacts on Child and Family Functioning

Paternal negative behaviors, exposure to neighborhood violence, and family type independently and in interaction negatively influence:

– Children’s emotional and behavior regulation
– Children’s cognitive functioning
– Degree of family conflict
The findings reported here are based on research conducted as part of the national Early Head Start Research and Evaluation Project funded by the Administration on Children, Youth and Families, U.S. Department of Health and Human Services through Grant 90YF0010, Pathways Project: Research into Directions for Family Health and Service Use, to Hiram E. Fitzgerald, Ph.D. Principal Investigator, Michigan State University.

The research is part of the independent research the Michigan State University conducted with the Community Action Agency in Jackson, Michigan, which is one of the 17 programs participating in the national Early Head Start study.

The authors are members of the Early Head Start Research Consortium. The consortium consists of representatives from 17 programs participating in the evaluation, 15 local research teams, the evaluation contractors, and ACYF.

The content of this publication does not necessarily reflect the views or policies of the Early Head Start Research Consortium, Mathematica Policy Research, or the Department of Health and Human Services, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

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