

EARLY HEAD START

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

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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



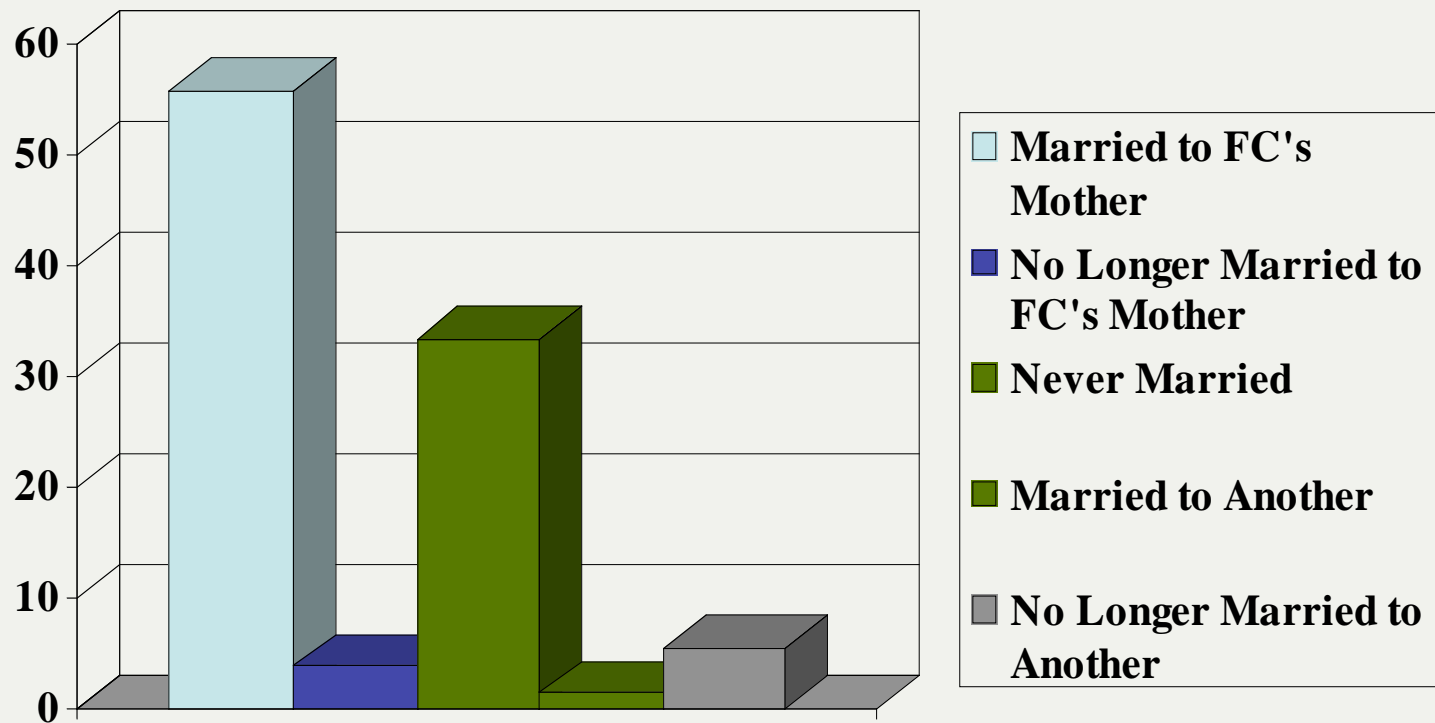
Highlights of the EHS Research and Evaluation Design

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

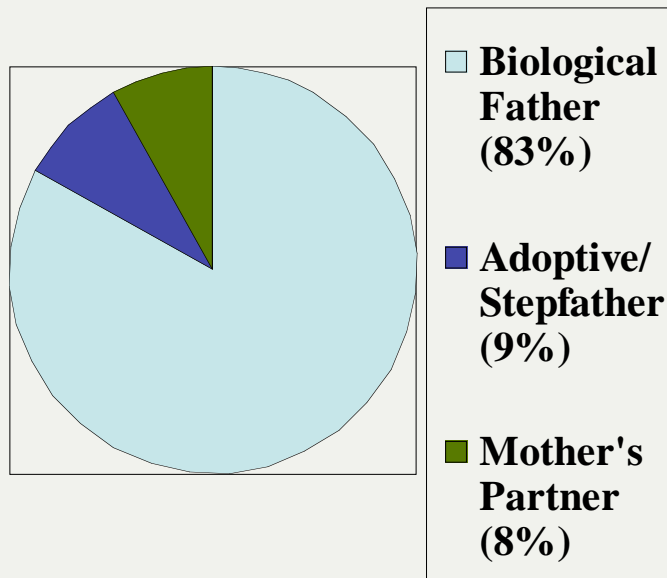


Sample Characteristics (n = 680)



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Father Type

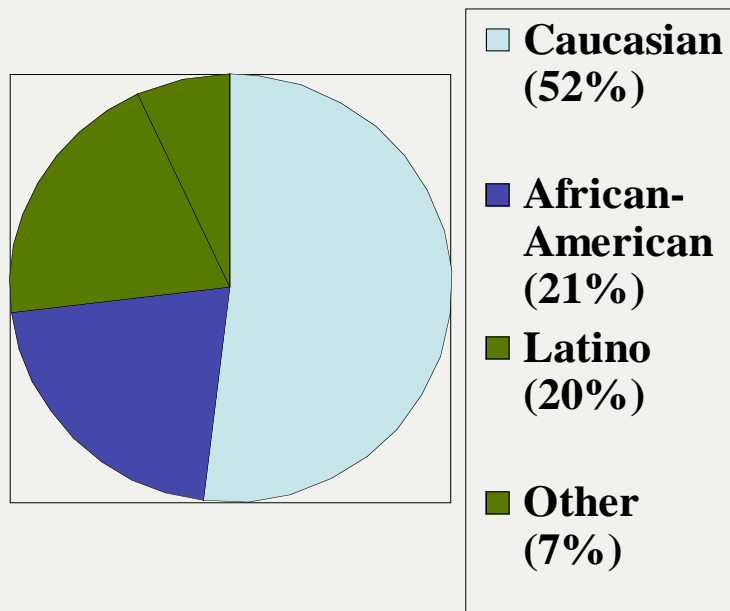


- Average age of child at time of 36-month birthday related father interview was 40 months (SD = 3 months)
- Average age of focus child's mother at time of 36-month birthday related father interview was 26 years (SD = 5 years)



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



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



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?

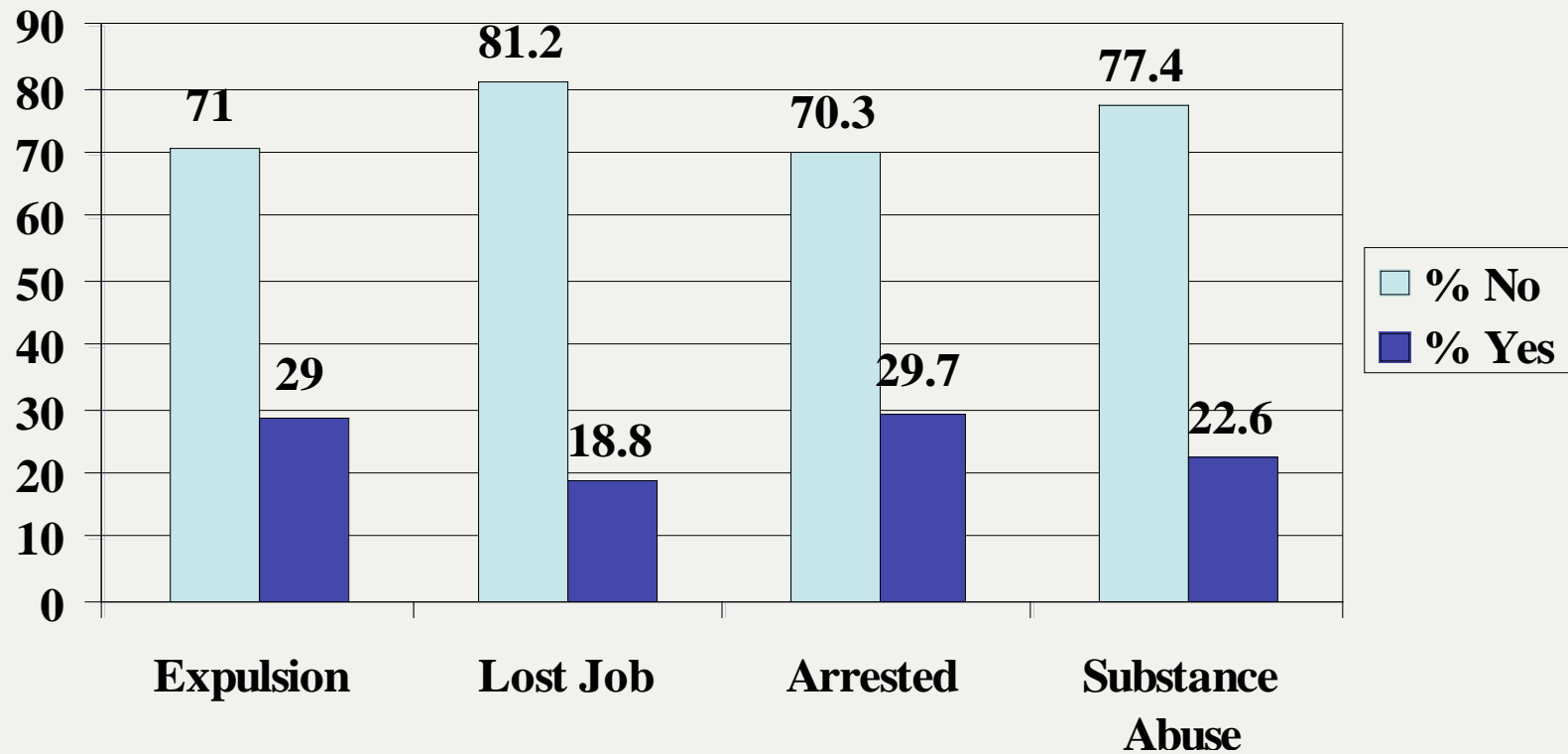


Father Antisocial Behavior Scale

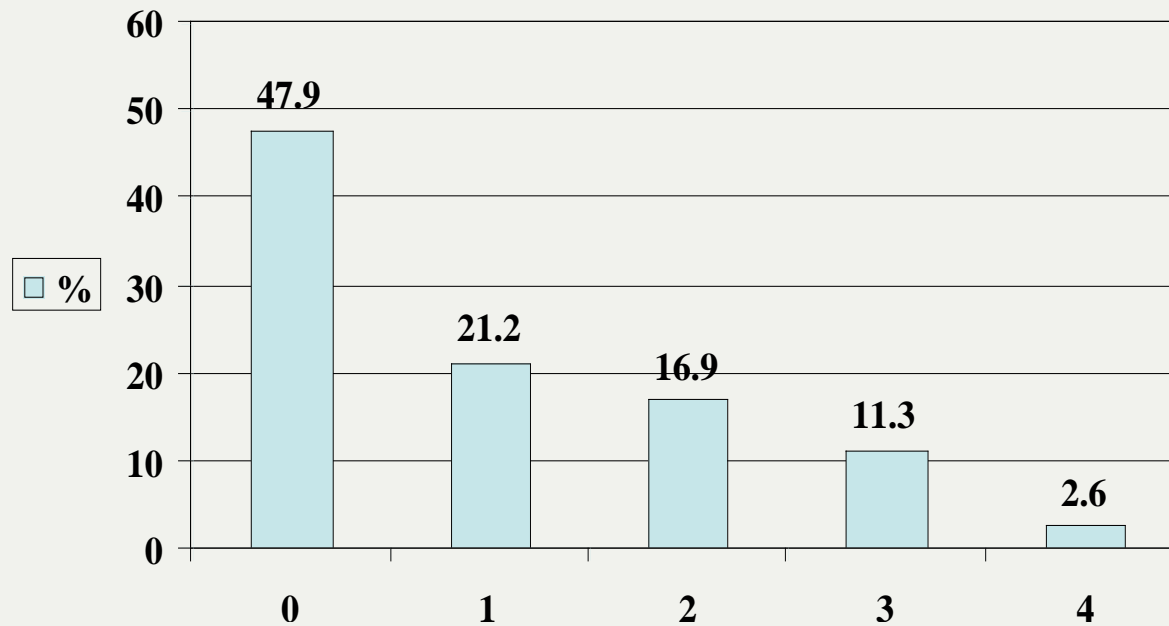
- Have you ever been expelled from school?
- Have you ever been fired or laid off from a job because of behavior, attitude, or work performance?
- Have you ever been put in jail, arrested or convicted of a crime, other than drunk driving?
- Have you ever had a drinking or drug problem or have other people thought you had one?



Father Antisocial Behavior



Father Antisocial Behavior



- 86.1% Low Risk (≤ 2 behaviors)
- 13.9% High Risk (≥ 3 behaviors)



Father Reported Child Aggressive Behavior

| | <i>B</i> | <i>SE B</i> | β |
|---------------------------------|----------|-------------|---------|
| <i>Father Constructs</i> | | | |
| Antisocial Risk | .17 | .38 | .02 |
| Family Conflict | 2.79 | .93 | .14** |
| Depression | .06 | .09 | .03 |
| PSI: Parental Distress | .19 | .10 | .10* |
| PSI: P-C Dysfunction | .46 | .13 | .18** |
| <i>Mother Constructs</i> | | | |
| Child Aggression | .19 | .05 | .20** |
| Family Conflict | .48 | .94 | .02 |
| Depression | -.06 | .07 | -.04 |
| PSI: Parental Distress | .05 | .06 | .05 |
| PSI: P-C Dysfunction | .04 | .09 | .02 |

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); * $p < .05$, ** $p < .01$



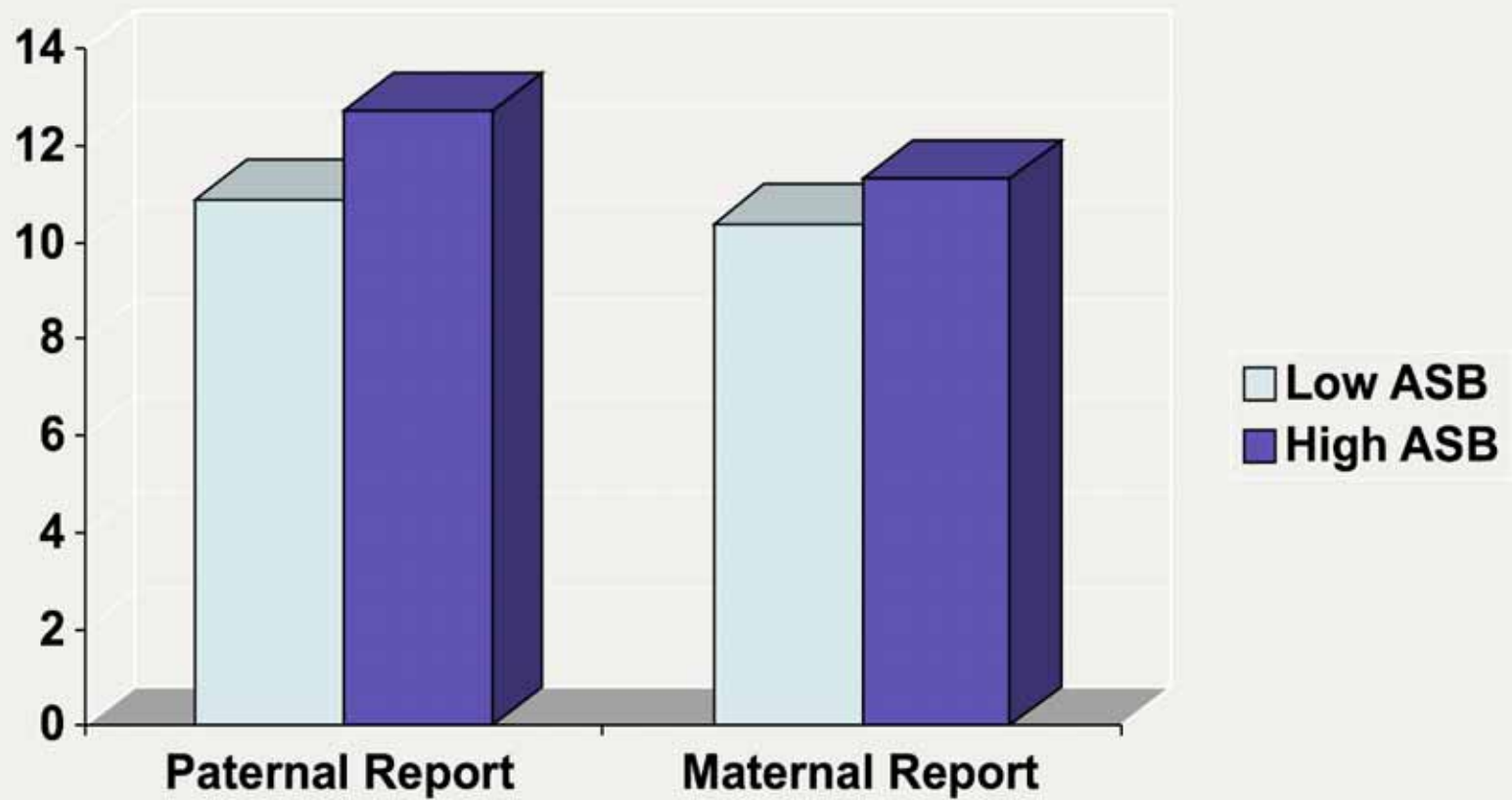
Mother Reported Child Aggressive Behavior

| | <i>B</i> | <i>SE B</i> | <i>β</i> |
|---------------------------------|----------|-------------|----------|
| <i>Father Constructs</i> | | | |
| Antisocial Risk | -.21 | .39 | -.02 |
| Family Conflict | -.68 | .95 | -.03 |
| Depression | .05 | .09 | .02 |
| PSI: Parental Distress | -.05 | .10 | -.03 |
| PSI: P-C Dysfunction | -.15 | .13 | -.06 |
| Child Aggression | .19 | .05 | .18** |
| <i>Mother Constructs</i> | | | |
| Family Conflict | 1.63 | .94 | .08 |
| Depression | .22 | .08 | .14** |
| PSI: Parental Distress | .16 | .06 | .10* |
| PSI: P-C Dysfunction | .61 | .09 | .32** |

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); * $p < .05$, ** $p < .01$



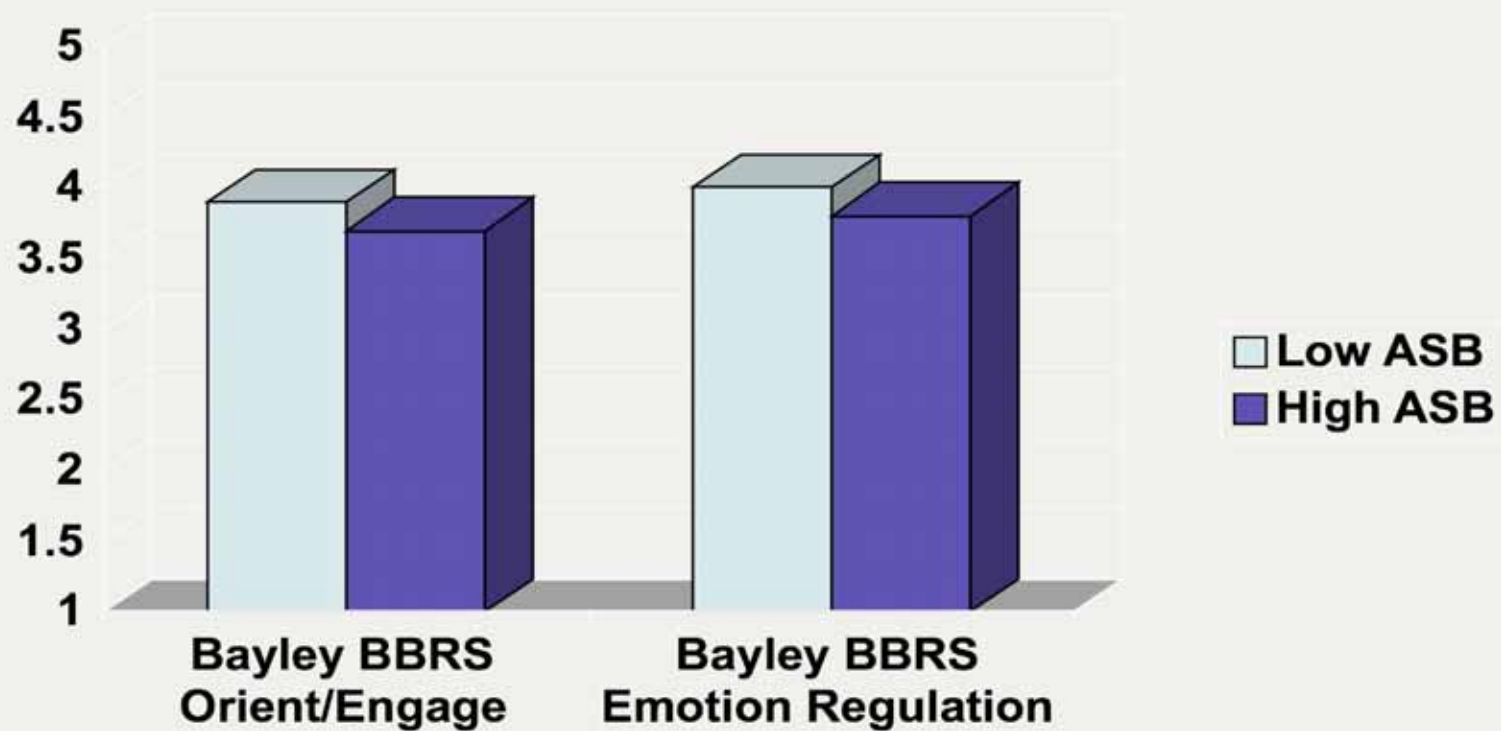
Father Antisocial Behavior and Child Aggression



$p < .10$, $p < .05$



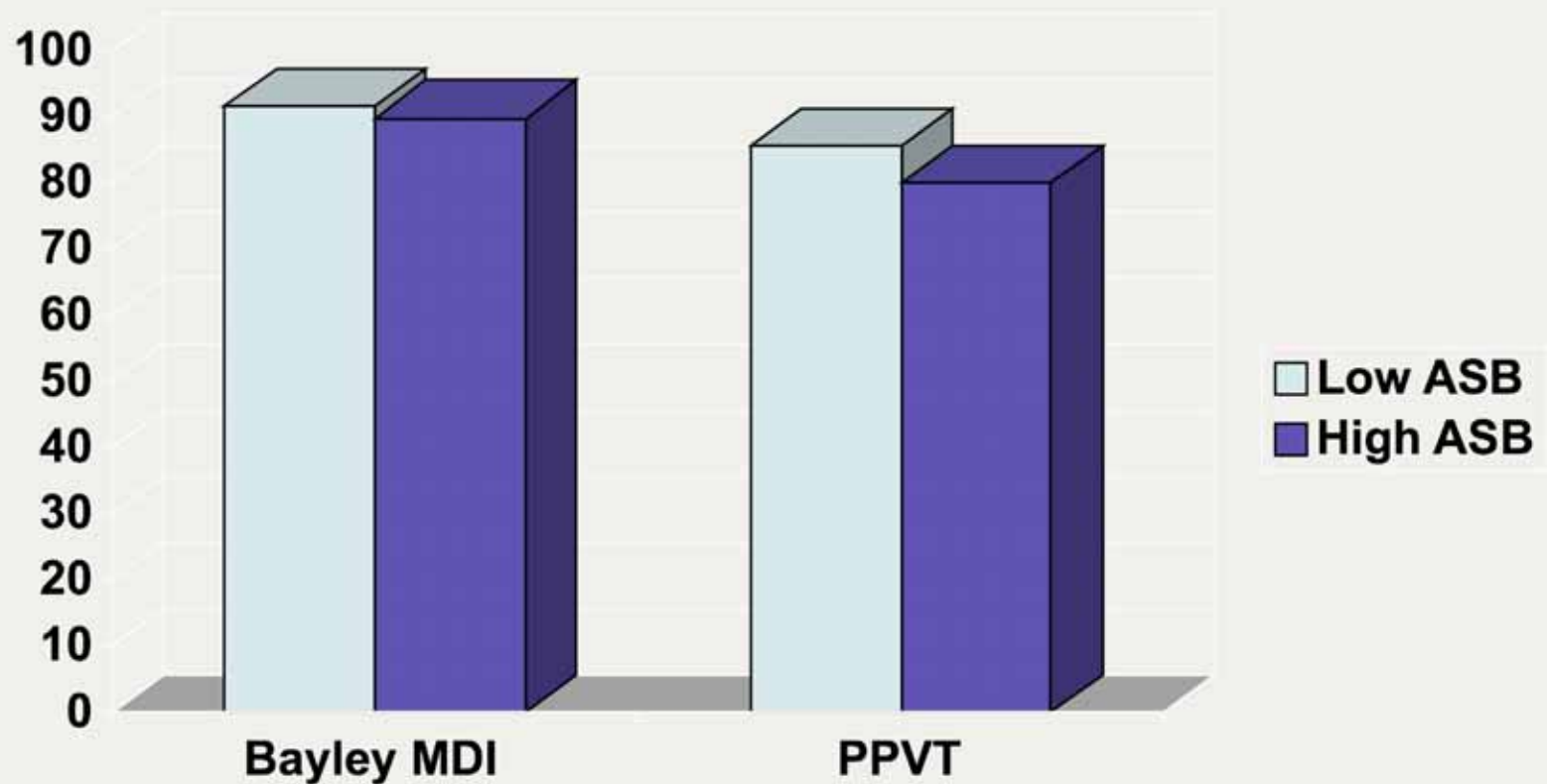
Father Antisocial Behavior and Child Outcomes



$p < .10$, $p < .05$



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)

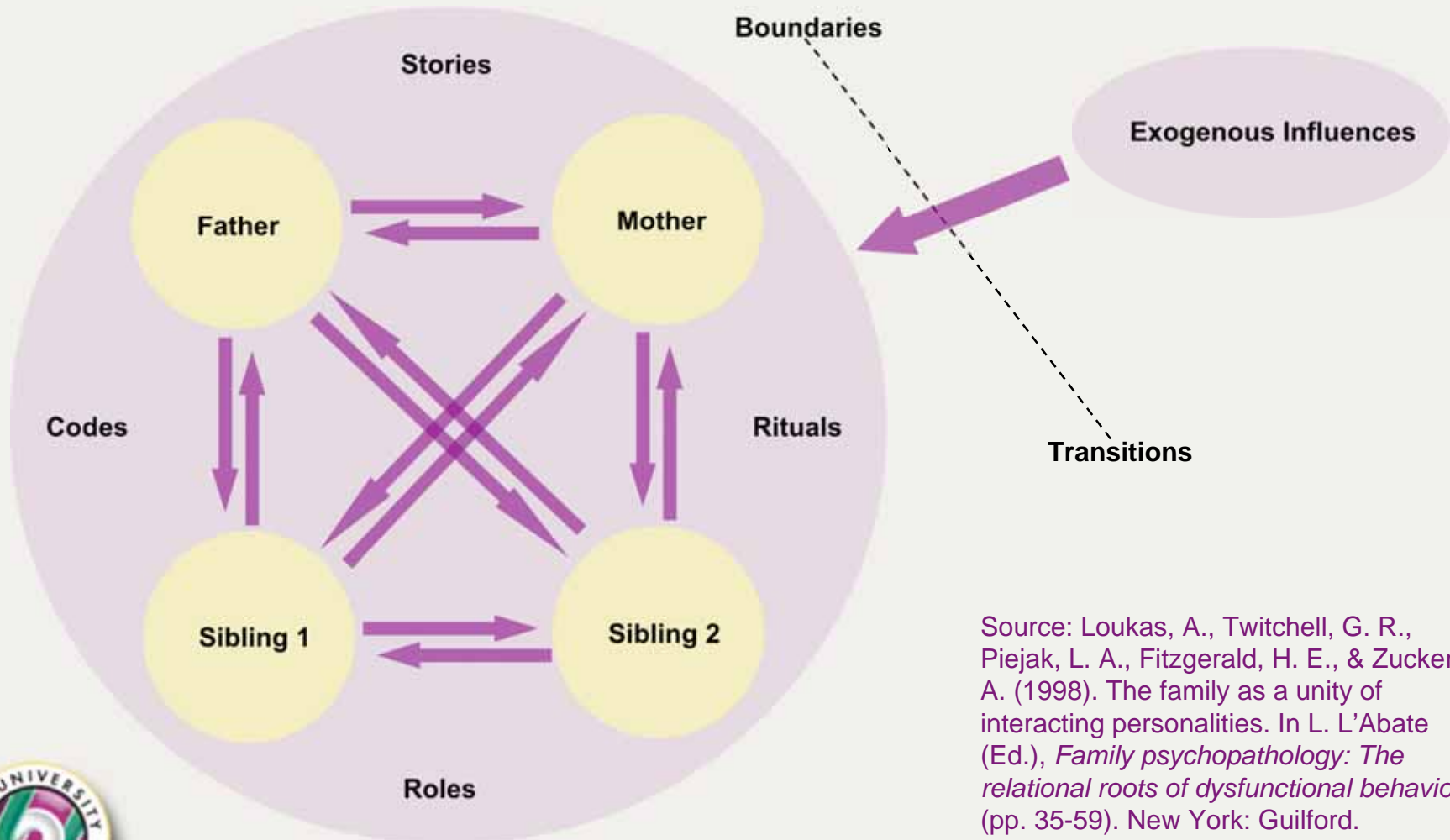


Research Questions

- 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



Source: Loukas, A., Twitchell, G. R., Piejak, L. A., Fitzgerald, H. E., & Zucker, R. A. (1998). The family as a unity of interacting personalities. In L. L'Abate (Ed.), *Family psychopathology: The relational roots of dysfunctional behavior* (pp. 35-59). New York: Guilford.

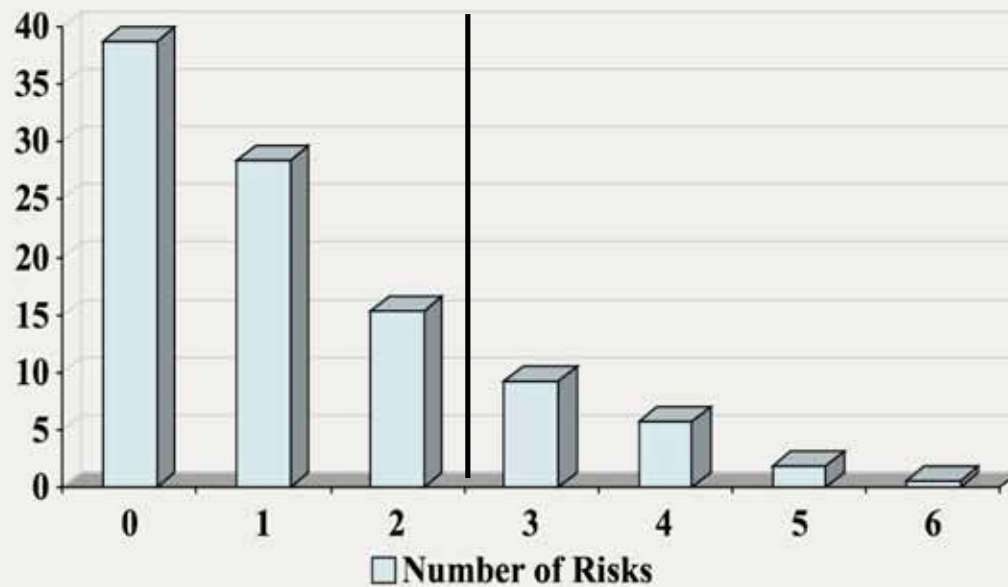


Risk in the Environment

- 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

| <i>Father Risk</i> | <i>Environmental Risk: No or Low</i> | <i>Environmental Risk: High</i> |
|---|--------------------------------------|---------------------------------|
| No or Low Risk for Antisocial Behaviors | 438 (71.7%) | 79 (12.9%) |
| High Risk for Antisocial Behaviors | 63 (10.3%) | 31 (5.1%) |



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

| <i>Child Outcomes</i> | <i>Risk Groups</i> | | | | <i>F</i> | <i>df</i> | <i>p</i> |
|---------------------------------|--------------------|-----------|--------------------|--------------------|----------|-----------|----------|
| | <i>NR</i> | <i>FR</i> | <i>NeR</i> | <i>FR/NeR</i> | | | |
| | <i>M</i> | <i>M</i> | <i>M</i> | <i>M</i> | | | |
| Behavior Problems Father Rating | 18.00 | 20.61 | 21.47 ^a | 20.88 | 3.60 | 3,646 | .013 |
| Puzzle | 5.11 | 5.04 | 4.75 ^a | 4.84 | 3.56 | 3,574 | .014 |
| Child Engagement with Mother | | | | | | | |
| Child Persistence with Mother | 4.68 | 4.50 | 4.16 ^a | 4.04 ^a | 6.24 | 3,572 | .000 |
| Bayley Scale | 91.96 | 92.33 | 87.16 ^a | 87.36 | 3.60 | 3,365 | .013 |
| PPVT Standard Score | 86.56 | 83.25 | 77.50 | 74.50 ^a | 10.20 | 3,504 | .000 |

^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

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

^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

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

^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.

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

| <i>Child Outcomes</i> | <i>NR</i> | <i>FR</i> | <i>NeR</i> | <i>FR/NeR</i> | <i>F</i> | <i>df</i> | <i>p</i> |
|-----------------------|-----------|-----------|-------------------|---------------|----------|-----------|----------|
| Mother Supportiveness | 4.80 | 4.56 | 4.18 ^a | 4.52 | 5.32 | 3,572 | .001 |
| Quality of Assistance | 3.83 | 3.53 | 3.32 ^a | 3.36 | 4.91 | 3,571 | .002 |
| Intrusiveness | 2.44 | 2.40 | 2.87 ^a | 2.68 | 2.89 | 3,573 | .035 |
| Detachment | 1.44 | 1.60 | 1.92 ^a | 1.80 | 7.78 | 3,573 | .000 |
| Father Supportiveness | 4.66 | 4.36 | 3.86 ^a | 4.22 | 3.24 | 3,246 | .023 |
| Intrusiveness | 2.57 | 2.45 | 3.29 ^a | 2.78 | 2.73 | 3,246 | .044 |

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



Research Questions

Identified levels of influence

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

Now: family contributions

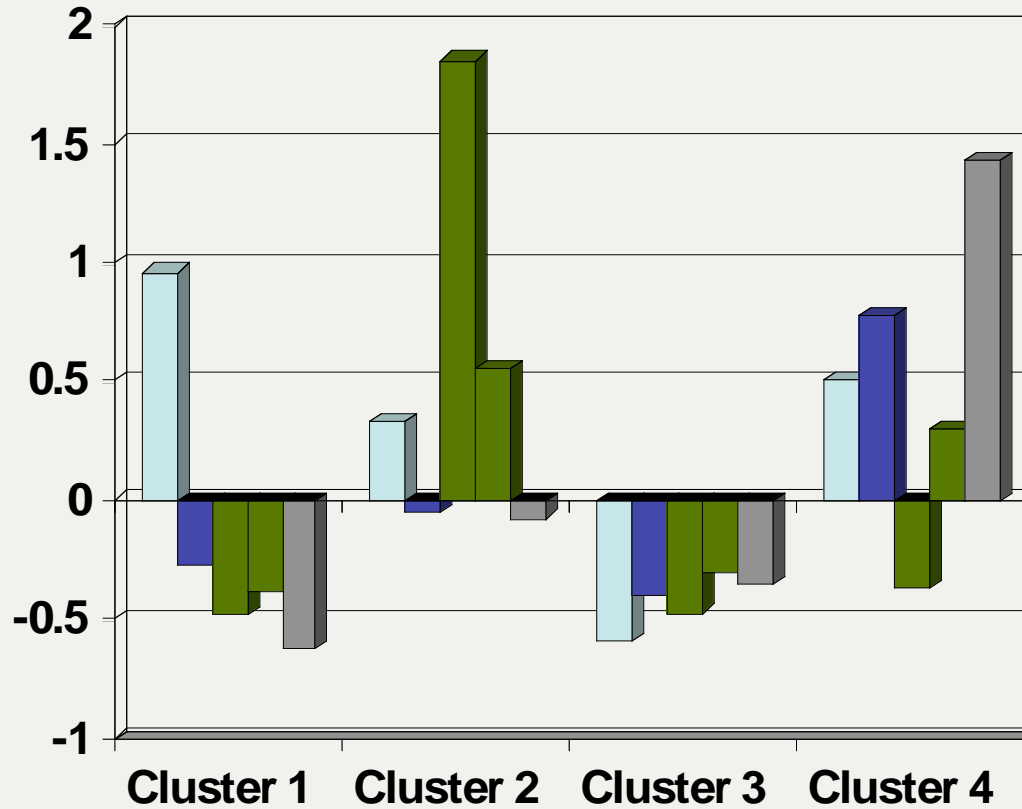
Do families independently contribute to risk

OR

Can families be characterized as “types”?



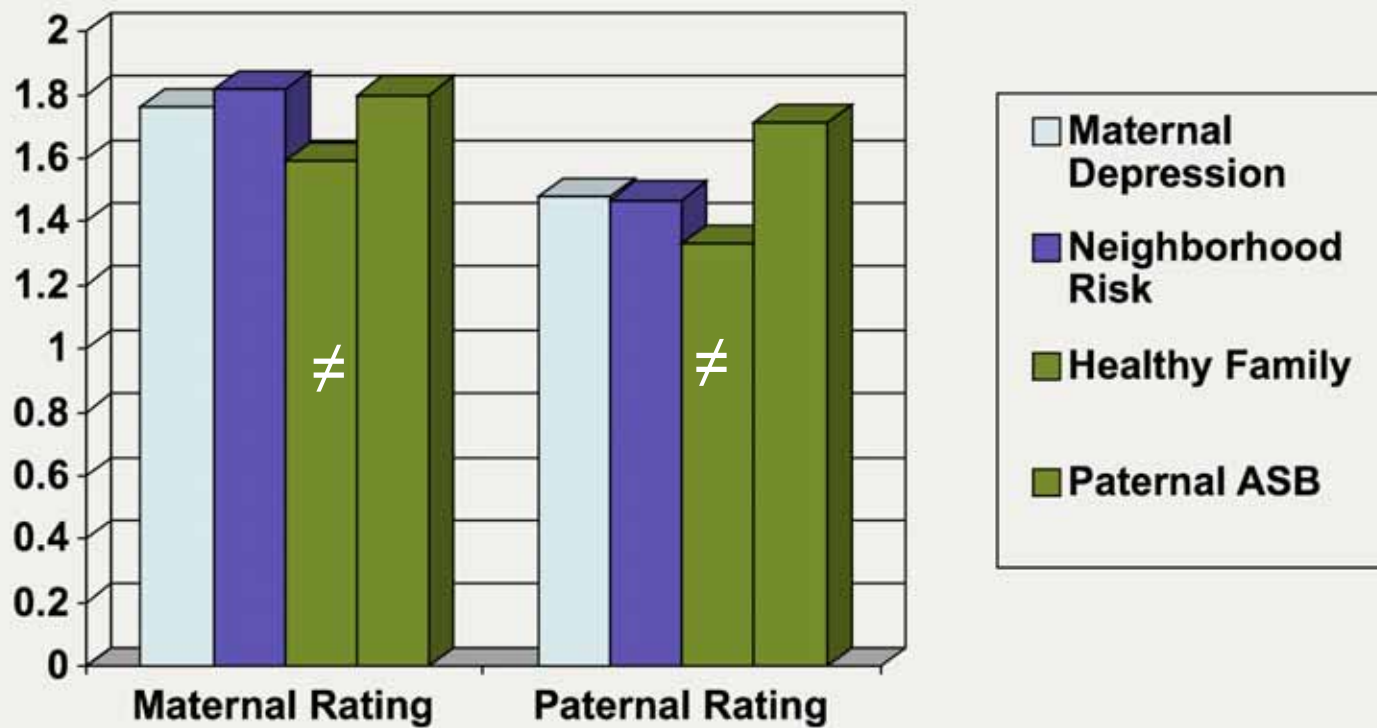
Clusters



Standardized scores presented



Family Outcomes: Family Conflict

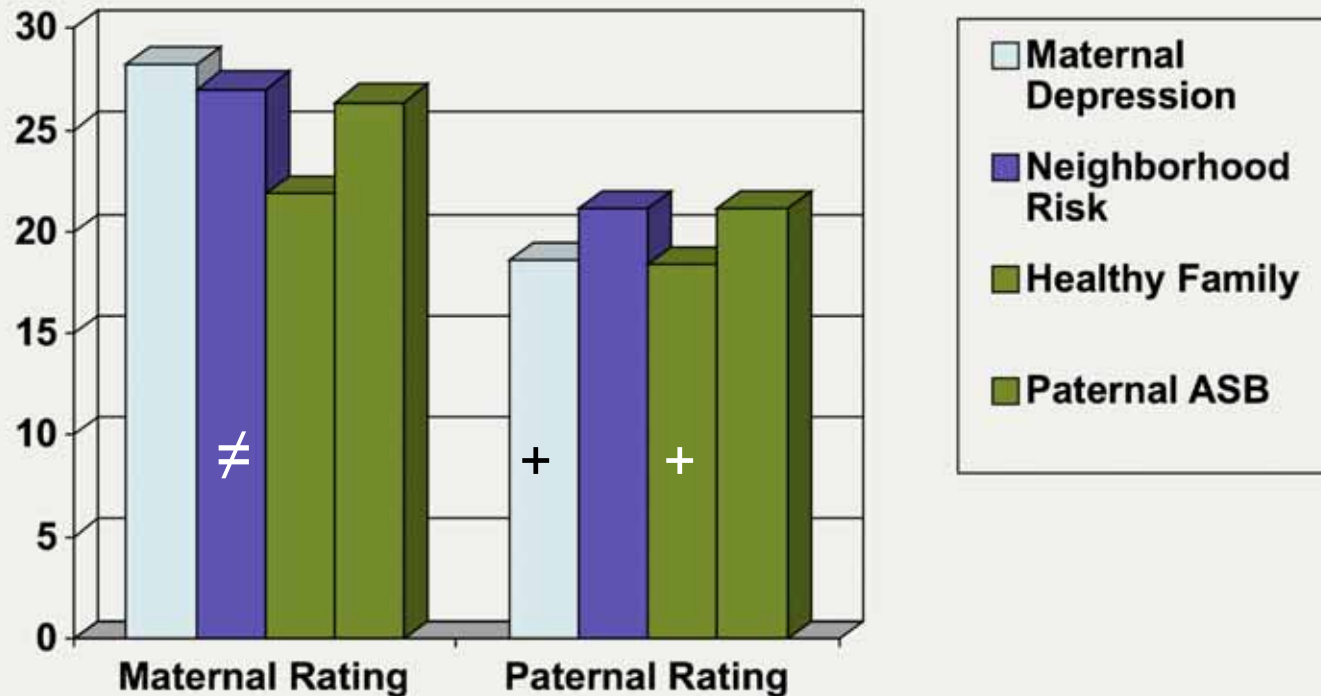


$p \leq .001$

≠ group mean is significantly different



Family Outcomes: PSI – Parental Distress



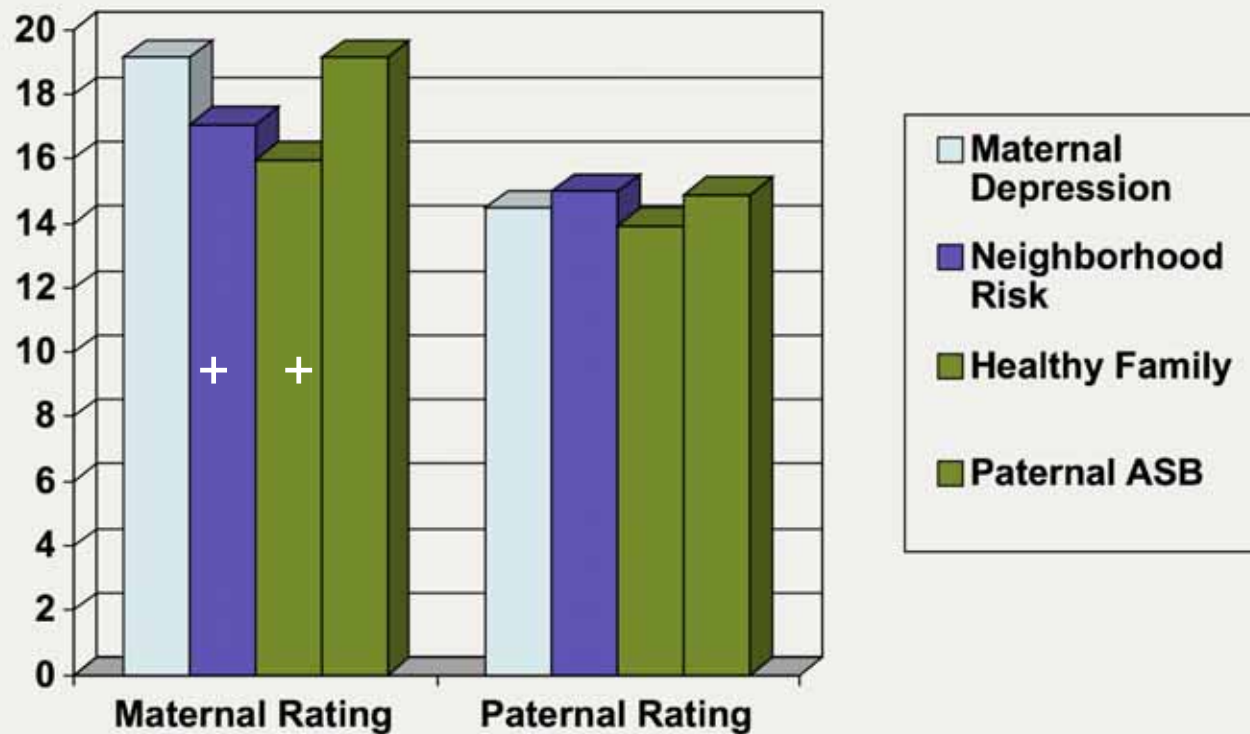
$p \leq .001$

≠ group mean is significantly different

+ group means are equal to each other but significantly different from others



Family Outcomes: PSI – Parent-Child Dysfunctional Interaction

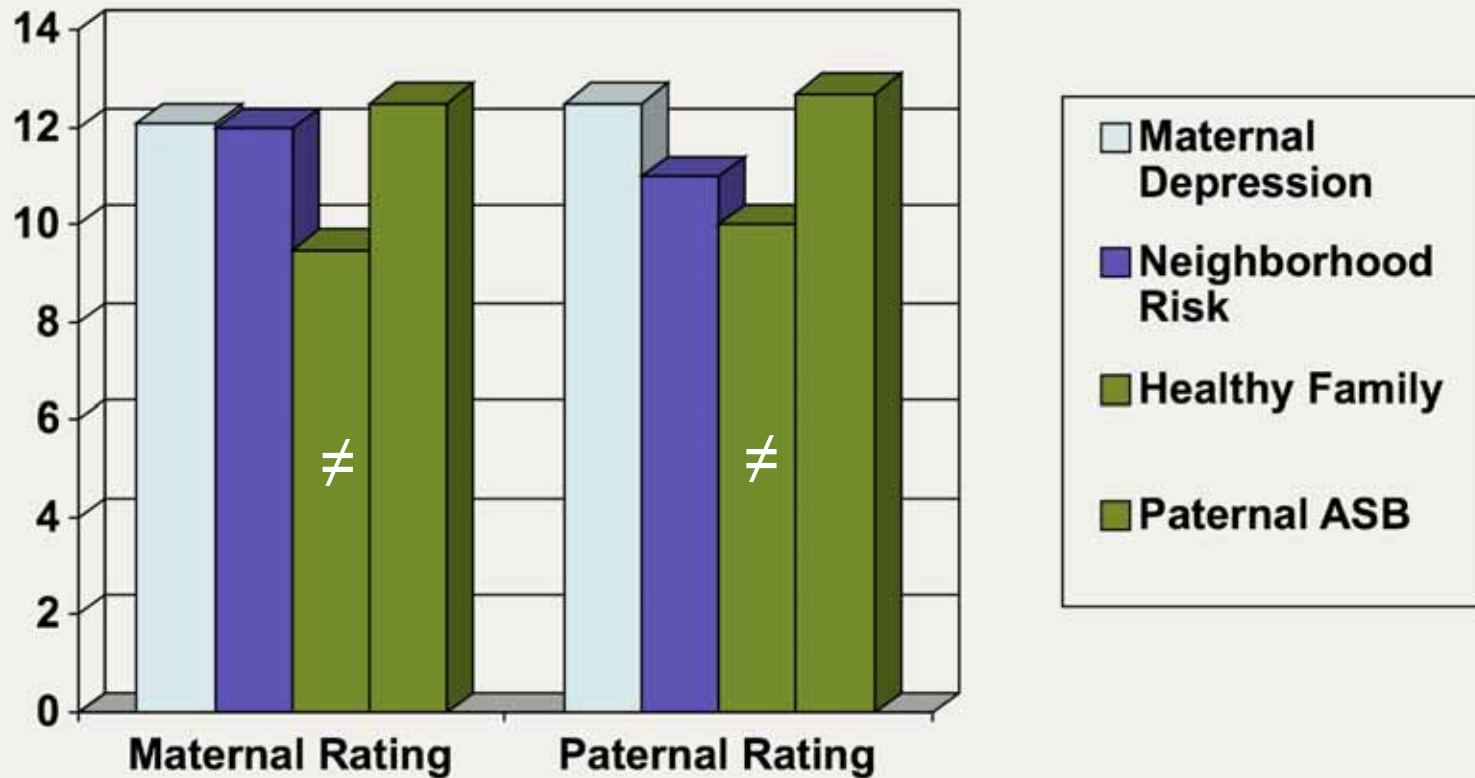


$p \leq .001$

+ group means are equal to each other but significantly different from others



Child Outcomes: CBCL - Aggression

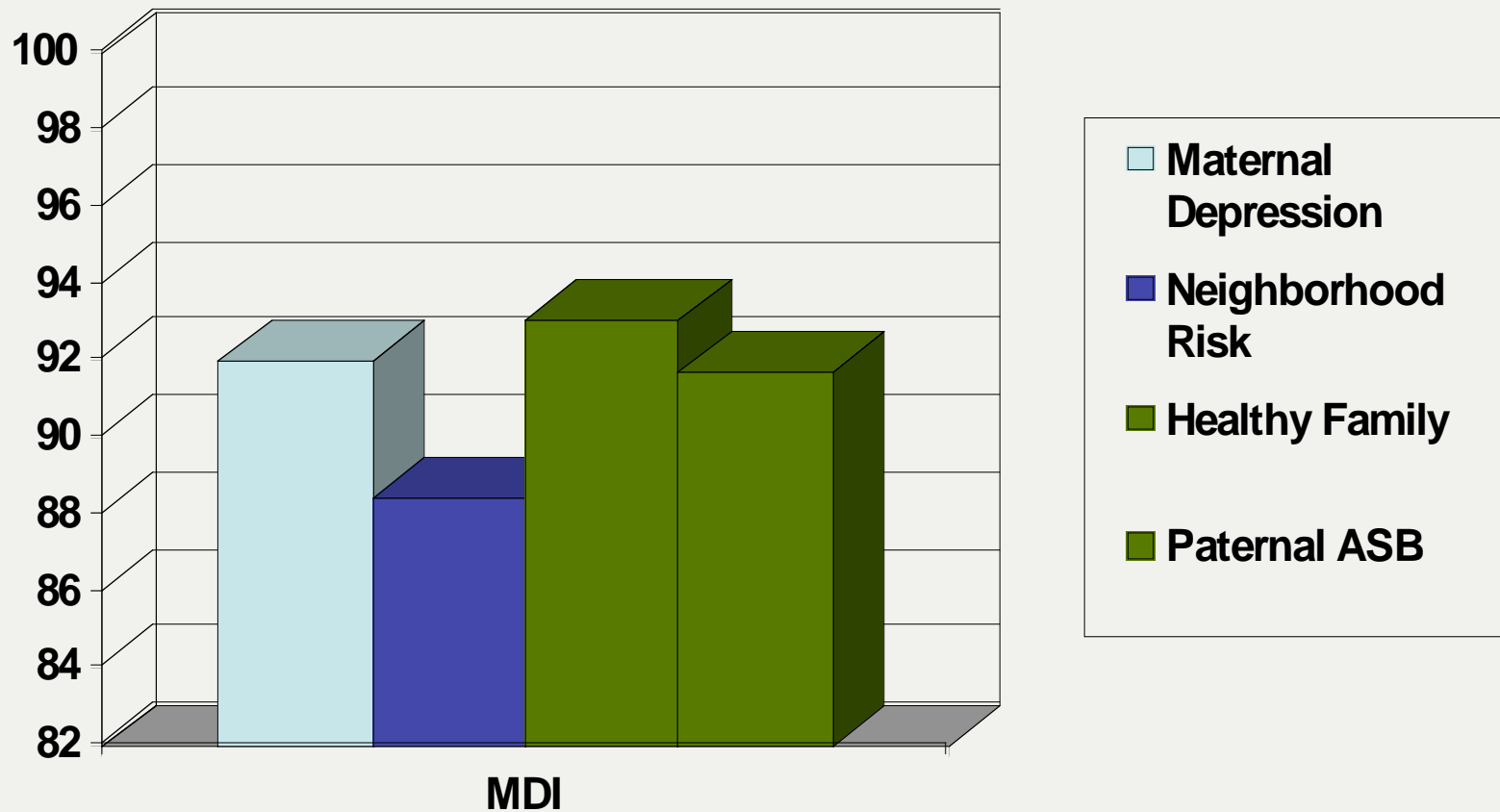


$p \leq .001$

≠ group mean is significantly different



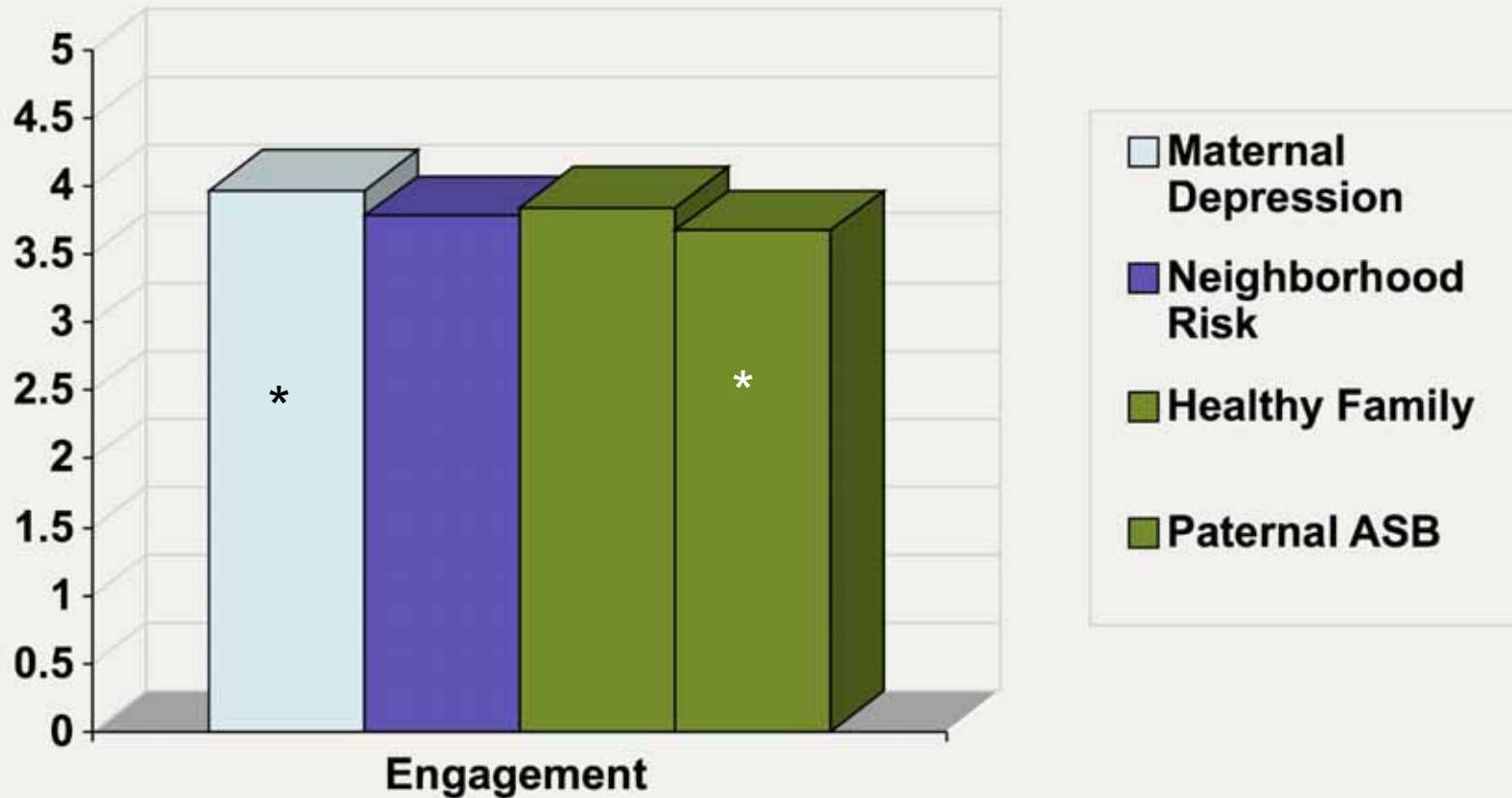
Child Outcomes: Bayley Scales – Mental Development Index



non-significant



Child Outcomes: Bayley Behavior Rating Scales – Orientation/Engagement

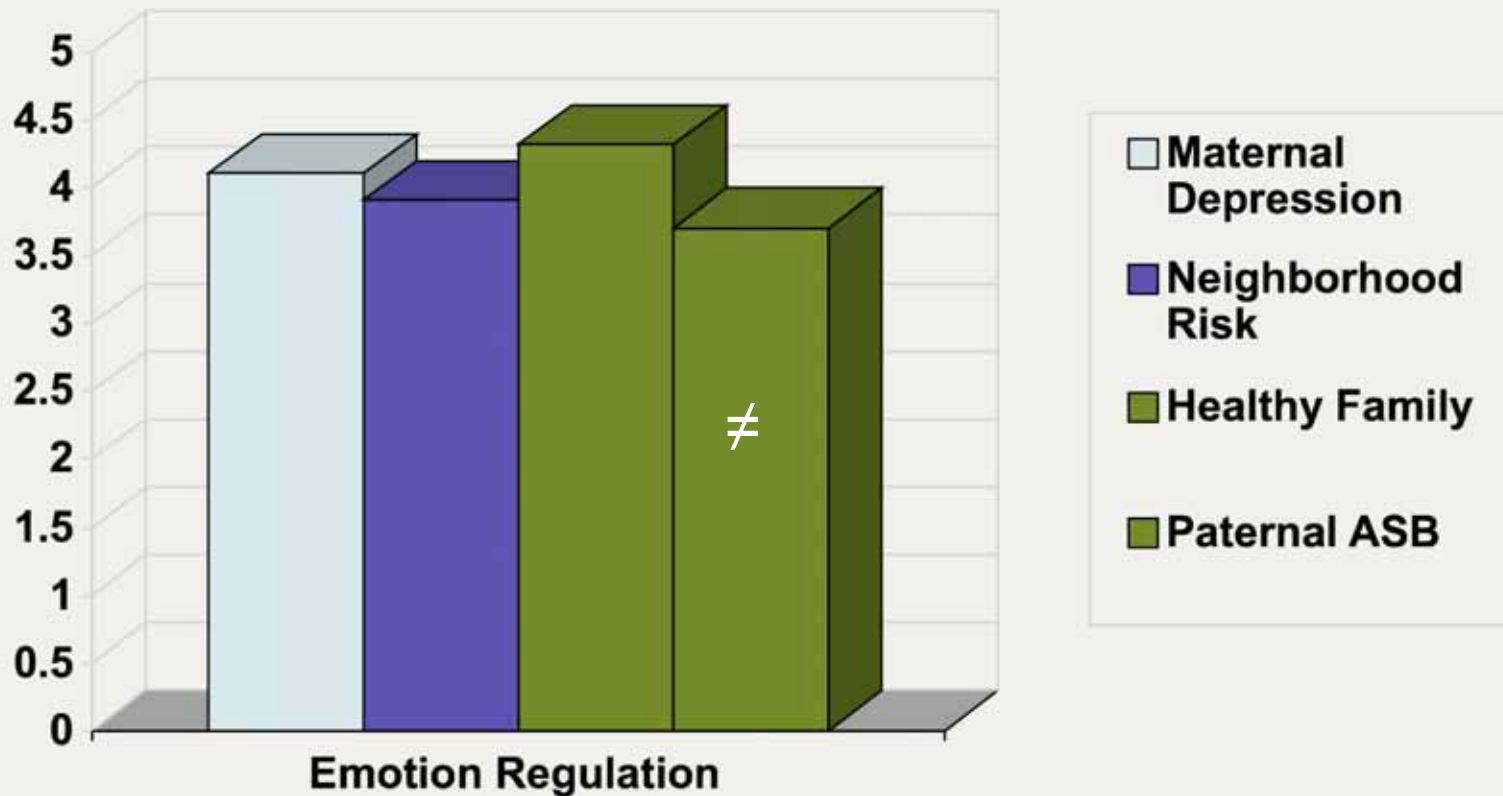


$p \leq .10$

* Means are significantly different from one another, but not other groups



Child Outcomes: Bayley Behavior Rating Scales – Emotion Regulation

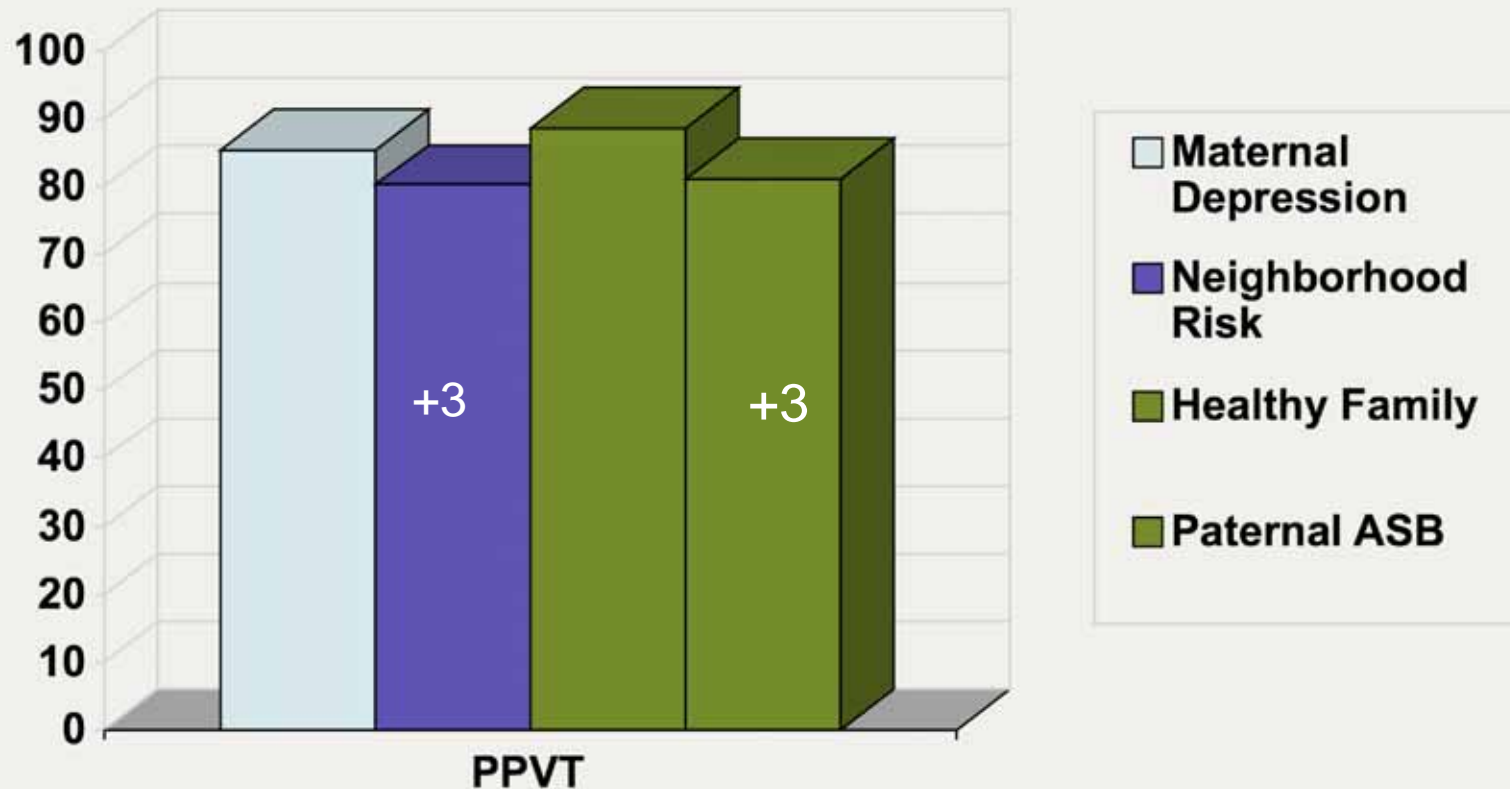


$p \leq .001$

≠ group mean is significantly different



Child Outcomes: Peabody Picture Vocabulary Test – Standard Score



$p \leq .001$

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



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



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