

# Biopsychosocial predictors of social-emotional functioning in children of mothers with and without low intellectual functioning

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## Introduction

### PREVIOUS LITERATURE:

Mothers with low intellectual functioning are more likely than mothers with higher intellectual functioning to experience poverty, depression, intimate partner violence, and low levels of social support (Aunos et al., 2008; Granqvist et al., 2014; Lindberg et al., 2017; McConnell et al., 2003; Powell & Parish, 2017; Wickström et al., 2017). These proximal factors may put children of parents with low intellectual functioning at greater risk for worse social-emotional functioning than their peers.

### STUDY AIM:

Explore whether social-emotional functioning in children raised by mothers with low intellectual functioning is better explained by parental intellectual impairment, environmental contributors, or a combination of these factors.

### RESEARCH QUESTION:

Do social-emotional outcomes differ for kindergarten-aged children of mothers with and without low intellectual functioning when controlling for community, family, and maternal factors?

## Methodology

### METHOD:

Quantitative data for this study were obtained from the Future of Families and Child Wellbeing Study (FFCWS), a longitudinal study of 4,982 families in the United States who had an index child born between 1998 and 2000 (Trustees at Princeton University, 2023). Children were surveyed on many dimensions at each time point.

### ANALYTIC SAMPLE:

The final analytic sample included 2,776 mothers who completed the Adaptive Social Behavior Inventory (ASBI) and the Child Behavior Checklist/4-18 (CBCL), self-report assessments of their children's emotional and behavioral functioning at the age of 5.

## Methodology (continued)

**MANOVA (Multivariate analysis of variance)** was utilized to determine the relationship between maternal intellectual impairment, covariates, and each of the outcomes.

### INDEPENDENT VARIABLE:

Low intellectual functioning - 70 or less on the Peabody Picture Vocabulary Test-Revised (PPVT-R)

### DEPENDENT VARIABLES:

Child Behaviors as endorsed on ASBI & CBCL

- Positive behavior
- Anxious/depressed
- Aggressive
- Withdrawn
- Delinquent
- Attention problems
- Social problems

### NEIGHBORHOOD FACTORS:

- Neighborhood Safety
- Gang presence

### FAMILY FACTORS:

- Intimate Partner Violence
- Intact Family
- Poverty

### MATERNAL FACTORS:

- Race
- SSI receipt
- Low intellectual functioning
- Aggravation in parenting
- Depression

## Results

### SIGNIFICANT GROUP DIFFERENCES:

- Small, but significant association between low intellectual functioning and maternal race were observed
- Mothers with higher intellectual functioning were more likely to be married and living with their child's father & had higher IPV scores than mothers with low intellectual functioning
- Mothers with low intellectual functioning were more likely to experience extreme poverty and be SSI recipients when compared to their peers.
- Mothers with low intellectual functioning reported significantly lower social-emotional functioning among their children in 5 areas when compared to their peers:
  - Positive behavior (t = 7.13\*\* ; d = 0.78)
  - Anxious/depressed behavior (t = -4.75\*\* ; d = -0.51)
  - Attention problems (t = -2.55\* ; d = -0.27)
  - Social problems (t = -3.80\*\* ; d = -0.41)
  - Withdrawn behavior (t = -5.76\*\* ; d = -0.62)

## Results (continued)

Coefficients for predictors in individual equations.

Behavioral Scales	Positive behavior	Anxious/depressed	Attention problems	Aggression	Social problems	Delinquent behavior	Withdrawn behavior
<b>Neighborhood factors</b>							
Neighborhood safety	-0.05	0.50*	0.35	1.05*	0.15	0.10	0.01
Gang presence	-0.78**	0.02	0.16	1.02*	0.12	0.40**	0.12
<b>Family factors</b>							
Intimate partner violence	0.04	-0.18**	-0.14**	-0.27**	-0.09**	-0.11**	-0.11**
Intact family	-0.22	-0.42**	-0.44**	-1.01**	-0.18*	-0.42**	-0.24*
<b>Poverty (compared to None)</b>							
Extreme	-1.32**	0.09	0.66**	2.03**	0.65**	0.47**	0.67**
Moderate	-0.48*	-0.11	0.49**	1.05**	0.43**	0.09	0.24*
<b>Maternal factors</b>							
<b>Race/Ethnicity (compared to White, non-Hispanic)</b>							
Black, non-Hispanic	-0.62**	-0.22	-0.64**	-0.59	0.03	0.04	-0.09
Hispanic	-0.76**	0.82**	-0.04	0.23	0.32**	0.08	0.47**
Other	-0.56	0.49	-0.50	0.24	0.04	-0.04	0.29
SSI recipient	-1.02*	0.36	0.93**	0.27	0.48*	0.21	0.49*
Aggravation in parenting	0.12**	-0.18**	-0.20**	-0.04**	-0.08**	-0.08**	-0.11**
Low intellectual functioning	-1.53**	1.30**	0.69*	0.14	0.52*	0.02	0.84**
Depression	-0.08	0.91**	1.16**	1.74**	0.49**	0.30**	0.57**

\*p ≤ 0.05; \*\*p < 0.01

## Discussion

### SIGNIFICANT FINDINGS:

- Maternal low intellectual functioning had the strongest effect on children's anxious/depressed, positive, and withdrawn behavior.
- Maternal low intellectual functioning was predictive of attention and social problems
- Poverty mediated the relationship between maternal low intellectual functioning and children's social-emotional functioning
- Those living in extreme poverty had the lowest levels of functioning

### RECOMMENDATIONS:

- Further study is needed to identify targeted support services and for early social-emotional education to assist children and families
- Systemic efforts to alleviate poverty could decrease material hardship and close the gap in social-emotional functioning

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