What Have We Learned from Twelve Years of Early Head Start Research?
The Parenting and Child Development Workgroup

The members of the Early Head Start Research Consortium Parenting and Child Development Workgroup are engaged in research on the development of children living in poverty and most centrally, on the contributions of parents’ characteristics and practices to their children’s social, emotional, cognitive, and language development. Past and current projects focus on the development of emotion regulation during the early years; influences of parents’ cognitions and mental health on child well-being; links between the home environment and parenting practices on children’s attachment security, cognitive performance, and language and literacy progressions; Early Head Start impacts on parents and children; and similarities and differences between mothers and fathers, and between girls and boys. Interest in cultural influences on parents and children has figured in all of these areas of study.

On this poster, we provide snapshot summaries of the results of our research in just two areas – parenting in relation to support and control and parenting influences on language and literacy development. Additional articles will soon be coming out in special issues planned for Parenting Science and Practice, Attachment and Human Development, Scientific Studies of Reading, and Early Education and Development.

Selected Findings Pertaining to Parental Support and Control

The implications of spanking and verbal punishment for low-income White, African American, and Mexican American toddlers:

Maternal perceptions regarding child fussiness at age 1 predicted the frequency with which the child was spanked at age 2. Also, spanking at age 1 predicted greater child aggression at age 2 and lower cognitive functioning at age 3. This finding held regardless of level of maternal responsibility and regardless of maternal race/ethnicity.

For the sample as a whole, when maternal responsibility was relatively low, verbal punishment at age 2 predicted lower cognitive functioning at age 3. However, when maternal responsibility was relatively high, verbal punishment predicted less child aggression and higher cognitive functioning at age 3.


Patterns of Parenting and their Relations to Infant Development among Mexican, African, and European American Low-Income Mothers

Cluster analyses identified three similar parenting patterns within each of the three ethnic groups: (1) sensitive, (2) directive, and (3) uninvolved. Among African American and European American families only, a fourth pattern, involving harshness, was also identified.

Intrusiveness in the context of above-average negativity (Harsh) is distinct from intrusiveness in the absence of high negativity (Directive).

The harsh pattern of parenting (compared to sensitive parenting) elicited the strongest and most pervasive negative effects for African and European American children on cognitive development, emotional regulation, and engagement.

The directive pattern of parenting (compared to sensitive parenting) had fewer negative effects on child outcomes at age 2 and 3 than the harsh or uninvolved parenting patterns.

The Sensitive group of African American mothers displayed scores of intrusiveness that were relatively low within the group, but moderate if contrasted with scores of European Americans. This finding supports the view that a certain degree of “intrusiveness” may characterize sensitive parenting practices in African American families.

African American Mothers’ Thoughts about Corporal Punishment (A qualitative study):

Words such as pop, tap, whup, spank, hit, and smack helped mothers convey differential meanings about the types and intensities of corporal punishment.

Concern about the child’s future in difficult neighborhoods, especially a desire to avoid future defiance, was the predominant reason given for corporal punishment.

Mothers gave fathers and extended family members approval to use corporal punishment only if they had earned mothers’ trust that they really cared about the children and if mothers viewed their relationships with these individuals as mutually helpful.


The implications of maternal intrusiveness at age 1 for children’s behavior toward their mothers at age 2 in low-income White, African American, and Mexican American toddlers:

Maternal intrusiveness when children were 1 predicted increased negativity toward mothers in 2-year-olds in all four cultural groups. Cultural differences in the implications of maternal intrusiveness were evident in that: (1) among African Americans only, the association between maternal intrusiveness and child negativity was lessened if mothers were high in warmth, and (2) maternal intrusiveness predicted decreases in child engagement with mothers only in White families.


Intrusiveness and Support in Mothers’ and Fathers’ Engagements with Children

Mothers and fathers were coded on their intrusiveness and support during play with their 2- and 3-year olds. For both mothers and fathers, ratings on support and intrusiveness did not differ, and prediction to children’s cognition and language was identical for mothers and fathers. Specifically, support predicted higher language and cognition scores, whereas intrusiveness had no relation to children’s language and cognitive development.


Longitudinal Patterns of Maternal Intrusiveness during Play with Young Children in White, Black, and more and less acculturated Mexican American Families:

Mothers in all four groups declined in intrusiveness from the time when their children were 14 months old to the time when children were close to kindergarten entry age. However, mean levels, rates, and patterns of decline varied by cultural group. Of the four groups, White mothers were consistently lowest and Black mothers were consistently highest in intrusiveness. Less acculturated Mexican descent mothers showed the steepest declines after the 14-month observation. The figure below shows these patterns.

Intrusiveness had generally negative implications for children’s behavior toward their mothers – a slowing in rates of increase in engagement with them and in rates of decline of negativity toward them. The trajectories of the children of less acculturated Mexican descent mothers were least affected.

Black boys seemed to react more negatively to intrusiveness than Black girls; child sex did not moderate intrusiveness effects in the other three groups.

In all four groups, maternal warmth moderated the effects of intrusiveness.

The non-normativeness of intrusiveness was associated with deleterious outcomes for Black and White children’s Time 1 and trajectory outcomes, and for more acculturated Mexican descent children’s Time 1 scores. Children in less acculturated Mexican descent families showed no effects of non-normativeness.

Parenting stress predicted intrusiveness in all four groups; authoritarian attitudes were a predictor only for Black and White mothers.


Patterns of change over time in mothers’ intrusiveness in each of four race/acculturation groups.
**Maternal Depression, Demographic Risk Factors, and Infant Attachment**

- When mothers are depressed, their infants are less secure.
- When families have a lot of demographic risk factors, their infants are less secure.
- When infants are less secure early, they are less likely to be secure later.
- Early insecure mother-infant attachment is a concern because it predicts later child aggression problems and later parent harsh punishment.

**Early Head Start can promote attachment security and thereby potentially reduce later problems for children and families.**

**Early Head Start can also reduce later harsh parenting directly, even when children are not secure.**


**In which of three contexts does maternal sensitivity best predict child outcomes?**

Mothers’ sensitivity was assessed when 14-month-olds were confined to a high chair with nothing to do (a stressful situation), during play with the items in three bags, and by the HOME. Sensitivity in the three contexts was generally better at predicting cognitive than social outcomes.

Maternal sensitivity in the stress context was an especially poor predictor for non-Caucasian children.


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**Selected Findings Pertaining to Supports for Literacy**

**The Literacy Environment in Relation to Children’s Language and Cognitive Development**

The literacy environment can be conceptualized as containing 3 main components: (1) Literacy Routines (e.g., bookreading, storytelling); (2) Quality of Parenting Engagements with Children (sensitivity and cognitive stimulation); and (3) Learning Materials. The literacy environments of 2,356 children were assessed when children were 14, 24, and 36 months of age. Literacy environment scores were related to children’s receptive and productive language (MacArthur, Bayley MDI scores, PPVT scores). Each of these 3 components explain unique variance in children’s cognitive and language development at each of the 3 ages.

Within and across time, literacy environment scores (as measured by summing across the 3 components) explain up to 30 points in children’s performance on standardized tests. For example, children with low literacy environment scores across the 3 components (routines, parenting quality, materials), had half the number of productive language (MacArthur, Bayley MDI scores, PPVT scores). Each of these 3 components explain unique variance in children’s cognitive and language development at each of the 3 ages.

When literacy environment scores were examined through the Prekindergarten period (resulting in scores across 4 ages — 14, 24, 36 months; Prekindergarten), six trajectories were identified: Low rise, low decline, moderate rise, moderate decline, high stable, high decline (See Figure 4 below).

These trajectories predicted differences among children on measures of school readiness, including PPVT, Applied Problems, and Woodcock Johnson Reading (See Table 1 below).


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**Table 1: Analysis of Variance: School Readiness Outcomes at Prekindergarten by Trajectories of Children’s Literacy Environment**

<table>
<thead>
<tr>
<th>Literacy Environment Trajectory</th>
<th>PPVT</th>
<th>WJ Letter-Word Identification</th>
<th>WJ Applied Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>&lt; 85</td>
<td>≥ 85</td>
</tr>
<tr>
<td>1. Low rise</td>
<td>78.38 (14.98)</td>
<td>71%</td>
<td>7%</td>
</tr>
<tr>
<td>2. Low decline</td>
<td>81.51 (14.98)</td>
<td>56%</td>
<td>6%</td>
</tr>
<tr>
<td>3. Moderate decline</td>
<td>82.91 (13.49)</td>
<td>39%</td>
<td>22%</td>
</tr>
<tr>
<td>4. Moderate rise</td>
<td>94.60 (14.58)</td>
<td>23%</td>
<td>38%</td>
</tr>
<tr>
<td>5. High decline</td>
<td>100.42 (10.35)</td>
<td>12%</td>
<td>63%</td>
</tr>
<tr>
<td>6. High stable</td>
<td>104.59 (15.15)</td>
<td>8%</td>
<td>70%</td>
</tr>
</tbody>
</table>

| N                              | 1673 | 1845 | 1837 |
| F (df)                         | 1667 | 1839 | 1831 |
A pattern of daily reading at 14-, 24- and 36-months for English-speaking children and daily reading at any one of those points for Spanish-speaking children positively predicted children’s language and cognitive skills at age 3.

Families who began reading regularly with their children by 14 months were likely to continue to do so through age 3. There seems to be a snowball effect over time, with bookreading and children’s language skills reinforcing each other.

Analyses using simulated means showed that three potential supports (Early Head Start, mother completing high school and daily reading) each added 1–4 points to children’s cognitive and language scores. These results were consistent across subsamples of mothers with low and higher verbal ability and mothers who were English and Spanish-speakers.

**RAIKES et al. (2006).**

Mother-child bookreading in low-income families: Correlates and outcomes during the first three years of life. *Child Development, 77-4, 924-953.*

**DIFFERENT ASPECTS OF READING READINESS ARE PREDICTED BY DIFFERENT ASPECTS OF EARLY DEVELOPMENT.**

**DECODING AND KNOWING HOW TO USE A BOOK ARE BETTER PREDICTED BY EARLY COGNITIVE SKILLS.**

Understanding a story is better predicted by vocabulary.

Mothers’ education has an early impact on language and cognitive development, but not on later reading readiness.

Mothers’ behavior, however, is related to both children’s immediate development and their later learning.

These results on children even before kindergarten show how important the early years are for establishing the foundation for later school success.

The results also suggest that it is what parents do directly with their children that has more lasting influence than the amount of education the parent has.

**BOYCE et al. (2004, April).**

Learning to read: A look at early language development and the home environment. *Society for Research in Human Development, Park City, UT.*

**ROGGMAN et al., PRICE, JONES (2006, July).**

Mothers’ Talk to Children and Children’s Early Vocabulary Growth

Analysis of videotapes of 108 mother-child dyads at 14, 24, and 36 months revealed:

**Large variation among children in how quickly their vocabulary use grew between 14 and 36 months.**

Children of mothers with stronger verbal skills showed faster growth in vocabulary use.

Children whose mothers used a wide variety of words when talking to them showed faster vocabulary growth. Variety of words was more important than the amount of talk mothers addressed to children.

Mothers who chose to spend longer looking at a book with their child used more talk and more varied talk with their child.

Children whose mothers reported depressive symptoms showed slower growth in vocabulary production.


Mother-Child Narratives and Children’s School Readiness

Seventy mothers and children from the New York site were coded on their language while sharing a personal narrative. Mothers were coded for how often they stated narrative information (e.g., “We went to the park”), or prompted for narrative information (“Where did we go?”). Children were coded on whether their statements were responsive (e.g., “We went to the park” after being asked where they went) or independent contributions (e.g., “We ate ice cream when we got there”).

Mothers who prompted for more narrative elements had children who were more able to independently contribute new information to the shared narrative.

Children’s independent contributions to shared narratives predicted a composite score of school readiness (which included story and print concepts, Woodcock Johnson reading and applied problem scores).

Thus, oral narratives appear to support children’s school readiness.