Language Delay, Socioeconomic Disadvantage and Participation in Early Intervention Services

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Abstract

In low income toddlers on the south side of Chicago:

1. Report the prevalence of language delay
2. Describe family and environmental factors associated with language development
3. Determine the prevalence of early intervention services received

Background

• Poverty is associated with decreased vocabulary skills in early childhood.
• There is a strong, significant relationship between the amount of early language input (before age 3), and subsequent vocabulary skills, language acquisition, and cognitive development.1,2
• The MacArthur Bates Communicative Development Inventories-Short Form (MCDI-SF), a parent report assessment of early language development, is a strong predictor kindergarten language skills.3
• Prior studies have shown associations between heavy television viewing, decreased conversational adult-child turn-taking, and poor development of language skills, however the effect of poverty on delayed early language development and television viewing remains complex.4

Methods

Recruitment:
Parents were recruited from multiple clinical settings at the University of Chicago and advertisements at bus stops on the south side of Chicago, IL, a region of the city with high poverty, high school dropout rates and unemployment.

Survey:
Parents were asked to complete the following:
• Background Questionnaire consisting of demographic information, medical/developmental history, developmental supports and parental perceptions of their child’s experiences in the home, including television use
• MCDI-SF, a parent report assessment of early language development
• Parenting Stress Index-Short Form (PSI-SF). This index measures child, parent, and situational characteristics associated with parenting stress.

Results

Table 1: Baseline Participant Characteristics

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>% Mean (range)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Age (months)</td>
<td>23 (16-30)</td>
</tr>
<tr>
<td>Male</td>
<td>55</td>
</tr>
<tr>
<td>Race</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>86</td>
</tr>
<tr>
<td>Caucasian</td>
<td>8</td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
</tr>
<tr>
<td>Single Parent</td>
<td>69</td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>36</td>
</tr>
<tr>
<td>Part-time</td>
<td>21</td>
</tr>
<tr>
<td>Students</td>
<td>25</td>
</tr>
<tr>
<td>Yearly income &lt;$15,000</td>
<td>59</td>
</tr>
</tbody>
</table>

Figure 2: Percentage of Language Delay

Figure 3: Parental Report of TV exposure

AAP Recommendations:
• NO television <2 years
• less than 2 hours/day if over 2 years

Conclusions

• Half of children on the south side of Chicago are significantly language delayed.
• The majority of children with ELD are not receiving early intervention services, and only 6% received speech services.
• Reported television watching far exceeds recommended hours by the American Academy of Pediatrics.7
• Total family stress is associated with increased family television watching.

Future Directions

SHORT TERM
• Create focus groups to explore parental understanding of child development and its relationship with child directed speech and television time.
• Evaluate the impact of maternal depressive symptoms and stress on television time and language outcomes.

LONG TERM
• To educate and support general pediatricians in the understanding and identification of families at greatest risk for children with ELD.
• To develop a series of interventions in primary care targeting early identification, family support, and community action for the promotion of early childhood communication skills.

Acknowledgements & References


Figure 1: Conceptual Model of Family and Environmental Influence on Language Development