Adolescent Parents’ Participation in Learning: Factors Contributing to Children’s Development

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Getting Ready Project

- The Getting Ready Project is a five-year, federally funded, longitudinal study.

- This project seeks to promote parent strengths and competencies through comprehensive, evidence-based family-centered services.

- Parent engagement with child (i.e., warmth & sensitivity, support for autonomy, participation in child learning) and with teachers (i.e., collaborative interactions and planning) are the focus of the intervention.

- Child and parent outcomes are investigated given our interest in child and family readiness for school.

- Adolescent parents are one group involved in the project who present with unique strengths and challenges when raising their children.
Adolescent Parents

- Approximately 750,000 teens become pregnant each year (Borkowski, Bisconti, Willard, Keogh, & Whitman, 2002)
  - Adolescents in the U.S. experience substantially higher pregnancy and birth rates than other industrialized countries (Singh & Darroch, 2000; Boonstra, 2002)

- At least 40,000 adolescents who become pregnant drop out of school each year
  - Fewer than six out of ten adolescent mothers graduate from high school by age 29 (Pianta & Walsh, 1996)

- The experience of being an adolescent parent has critical implications for parents as well as their children
Like many parents with young children, adolescent parents may struggle with understanding their child’s needs, communicating with their child, and developing their child’s cognitive skills.

All parents may increase their ability to prepare their children for successful entry into school by promoting essential pre-academic skills, such as language development, that relate to later cognitive outcomes.
Importance of Early Language Development

- Early language skills are an important precursor to the foundational skills of phonological processing, print awareness, and other essential features of reading (Whitehurst & Lonigan, 2002)
- Increasing children’s language skills can prevent a majority of reading problems (Snow, Burns & Griffin, 1998)
- Children with larger vocabularies have higher reading scores and a better understanding of spoken language (Whitehurst & Lonigan, 2002)
Parent Behaviors That Support Early Language Development

- Parent engagement plays a significant role in language and skill development (Harris, Jones, Brookes, & Grant, 1986; Landry et al., 1997; Tomasello & Todd, 1983)
- Maternal facilitation of language positively relates to positive expressive language and reading outcomes for children (Fewell & Deutscher, 2002)
- The use of positive affect and the expression of warmth through physical closeness and sensitive voice tones are also associated with improved cognitive outcomes (Landry, Smith, Swanck, Assel, & Vellet, 2001) and later language development (Bornstein & Tamis-LeMonda, 1989)
Parent Behaviors That Support Early Language Development

- Parents may engage in a variety of behaviors to promote early language skills:
  - Shared reading (Cornell, Senechal, & Broda, 1988)
  - Exposing children to print (Elley, 1989)
  - Rhyming, word-sound games (Whitehurst & Lonigan, 2002)
  - Reading aloud to their children (Raikes et al., 2006; Wood, 2002)
  - Using open-ended questions, expansions, and following a child’s lead (Arnold et al., 1994)
  - Aspects of the home literacy environment (Senechal, LeFevre, Hudson, & Lawson, 1996)

- Research indicates that adolescent parents are less likely to engage in behaviors that support language development than older mothers (Field, 1991; Osofsky & Osofsky, 1978)
Support for Adolescent Parents

- Professionals can provide support to improve outcomes for adolescent parents and their children.

- Support provided by school professionals has focused on practices that increase high school graduation (Smith-Battle, 2006) and parent-child interactions patterns (Crockenberg, 1985).

- Research examining the type of support provided to adolescent parents has typically focused on support provided by the mother’s family, partner, or social network (Bunting & McAuley, 2004; Letourneau, Stewart, & Barnfather, 2004).

- Research has yet to examine how professional support may impact the parenting behaviors of adolescent parents that support the learning and early language development of their children.
Research Questions

1. How do *observed adolescent parental behaviors that support child language and learning* relate to early language development in children of adolescent parents?

2. How do *adolescent parental perceptions of professional support* relate to early language development in children of adolescent parents?

3. How do *adolescent parental perceptions of professional support and behaviors that support language and learning* interact to predict early language development in children of adolescent parents?
Methods
<table>
<thead>
<tr>
<th></th>
<th>Parent</th>
<th>Child</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>17.24 years</td>
<td>9.89 months</td>
</tr>
<tr>
<td>Range</td>
<td>14-21 years</td>
<td>1-35 months</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
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<tr>
<td>Male</td>
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</tr>
<tr>
<td>Female</td>
<td>100%</td>
<td>59%</td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
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</tr>
<tr>
<td>Caucasian</td>
<td>44%</td>
<td>28%</td>
</tr>
<tr>
<td>African-American</td>
<td>22%</td>
<td>28%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>15%</td>
<td>17%</td>
</tr>
<tr>
<td>Other</td>
<td>19%</td>
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</tr>
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</table>
Participants

- Recruited from four high schools in a Midwestern community

- Each adolescent mother participates in the Student Parent Program at her school and is enrolled in the Getting Ready Project

- Adolescent mothers must be enrolled in the program for at least one year

- Mothers are enrolled in high school courses and a parenting class while their children are cared for in a child development center
Process

- Infant/toddlers are assessed by graduate research assistants twice per year
- Parent interviews are conducted three times per year
- Adolescent parents are compensated for their time
Measures

- **Preschool Language Scale — Fourth Edition**
  (PLS-4; Zimmerman, Steiner, & Pond, 2002)
  - Measured language development of the infant and toddler participants across auditory and expressive domains

- **Professional Support**
  - Mothers rated their perceptions of support by professionals over the past 3-6 months over 3 items
    (1=Not Very Helpful; 3 = Very Helpful)

- **Parent/Caregiver Involvement Scale**
  (PCIS; Farran, Kasari, Comfort, & Jay, 1986)
  - Parent-child semi-structured play sessions were videotaped and reliably coded for the quality with which parents engaged in behaviors to support their child’s language and learning (i.e., “learning behaviors” -- verbal involvement, relationships between activities, and teaching behaviors)
<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>SD</th>
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<tbody>
<tr>
<td>PLS-IV(^a)</td>
<td>96.67</td>
<td>14.50</td>
</tr>
<tr>
<td>Professional Support(^b)</td>
<td>2.53</td>
<td>0.58</td>
</tr>
<tr>
<td>Learning Behaviors(^c)</td>
<td>3.94</td>
<td>0.52</td>
</tr>
</tbody>
</table>

\(^a\)Preschool Language Scale-IV; Mean = 100; SD = 15

\(^b\)Professional support ratings range from 1-3 with high scores suggestive of greater levels of perceived professional support

\(^c\)Parent/Caregiver Involvement Scale, ratings range from 1-5 with high scores indicative of higher quality of parental behaviors that support learning and language
Analyses and Results
Analyses

- Correlation and multiple regression were conducted to predict the language and learning of infants and young children.
- The analysis included professional support, learning behaviors and their interaction as predictors of child language and learning.
- Bivariate correlations were computed among the PLS-IV, learning behaviors, professional support, maternal age, and child age.
Table 3  
*Bivariate Correlations (n = 54)*

<table>
<thead>
<tr>
<th></th>
<th>PLS-IV</th>
<th>Learning Behaviors</th>
<th>Professional Support</th>
<th>Mothers Age</th>
<th>Child’s Age</th>
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<tr>
<td><strong>PLS-IV</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>Learning Behaviors</strong></td>
<td>0.24+</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Professional Support</td>
<td>0.20</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother’s Age</td>
<td>-0.12</td>
<td>-0.11</td>
<td>-0.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child’s Age</td>
<td>-0.15</td>
<td>0.15</td>
<td>-0.27+</td>
<td>0.24+</td>
<td></td>
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+ \( p \leq .10 \)

- As adolescent mothers learning behaviors increase, their children’s scores on the PLS-IV increase
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<thead>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>Learning Behaviors</td>
<td>0.24+</td>
<td></td>
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<tr>
<td>Professional Support</td>
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<td>0.05</td>
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<tr>
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<td>-0.11</td>
<td>-0.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child’s Age</td>
<td>-0.15</td>
<td>0.15</td>
<td>-0.27+</td>
<td>0.24+</td>
<td></td>
</tr>
</tbody>
</table>

+ \( p \leq 0.10 \)

- Professional support is not significantly correlated with learning behaviors or PLS-IV scores
<table>
<thead>
<tr>
<th></th>
<th>PLS-IV</th>
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<th>Mothers Age</th>
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<tr>
<td>PLS-IV</td>
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<td>Learning Behaviors</td>
<td>0.24+</td>
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<tr>
<td>Professional Support</td>
<td>0.20</td>
<td>0.05</td>
<td></td>
<td></td>
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<tr>
<td>Mother’s Age</td>
<td>-0.12</td>
<td>-0.11</td>
<td>-0.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Child’s Age</strong></td>
<td>-0.15</td>
<td>0.15</td>
<td>-0.27+</td>
<td>0.24+</td>
<td></td>
</tr>
</tbody>
</table>

+ \( p \leq .10 \)

- As children get older, adolescent parents perceive less professional support
The overall regression model, produced a significant effect, $R^2 = .22$, adjusted $R^2 = .17$, $F (3,46) = 4.23 \ p \leq .01$

- The model predicts up to 22% of the variance in child language and learning
Table 4
*Multiple Regression Predicting Child Language and Learning*

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
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<tbody>
<tr>
<td>(Constant)</td>
<td>96.81</td>
<td>1.93</td>
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<tr>
<td>Learning Behaviors</td>
<td>5.14</td>
<td>3.73</td>
<td>0.18</td>
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<tr>
<td>Professional Support</td>
<td>3.61</td>
<td>3.63</td>
<td>0.13</td>
</tr>
<tr>
<td>Interaction</td>
<td>-19.75</td>
<td>7.30</td>
<td>-0.36**</td>
</tr>
<tr>
<td>Learning Behaviors x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional Support</td>
<td></td>
<td></td>
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</tbody>
</table>

Note. $R^2 = 0.22$

* $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$
Multiple Regression

- Adolescent parent learning behaviors, when controlling for the effects of professional support and the interaction term, was not significantly predictive of child language scores on the PLS-IV.

- Similarly, professional support, when controlling for the effects of parent learning behavior and the interaction term, was not statistically significant.

- However, there was a significant interaction between adolescent parent learning behaviors and professional support in predicting child language and learning.
For adolescent parents who demonstrate low levels of learning behaviors (*one standard deviation below the mean*), those with low levels of perceived professional support (*one standard deviation below the mean*), have children who score lower on the PLS-4 than those adolescent parents with high perceived levels of professional support.
For adolescent parents with high learning behaviors (one standard deviation above the mean), perceived level of professional support is not related to child language and learning.
Discussion

- Perception of support by professionals is important
  - Especially important in indirectly influencing child learning outcomes when adolescent parents do not exhibit a great deal of behaviors that support their child’s learning and early language
  - When parents do not engage in learning behaviors, and do not perceive professional support, children’s early language outcomes are diminished
  - Perceived support appears less important for parents who are already demonstrating high levels of behaviors that encourage children’s language and learning
Discussion

- Specific pathways by which the observed relationships and interactions occur is unknown
  - Language development can be influenced through other pathways in addition to positive learning behaviors demonstrated by parents
  - Perceived support may contribute to other forms of parent engagement, such as parents’ warmth, responsiveness and attachment, or support for their child’s autonomy, thereby promoting positive language outcomes
Discussion

- Other dimensions of the professional-parent relationship, beyond support, may be influential and predictive of child outcomes
  - Family-centered services endorse attitudes and practices that parallel “support”
- Parent-professional partnerships may promote other positive behaviors of both partners that enhance healthy child development
Implications for Practice

- The *perception* of professional support by adolescent parents is important, specifically for those who do not demonstrate behaviors to support learning in their young child.

- It is essential that school psychologists consider how efforts to support young parents are actually perceived.

- It is not clear what types of support are most helpful or important for this sample.
Limitations

- Our *measure of parent behaviors* to support learning and language taps only one aspect of what, when, where, and how parents actually interact with their children around learning.
- *Psychometric analysis* of the PCIS with this sample is still underway.
- The *measure of professional support* is incomplete.
- *External validity* is questionable given sample in high school program and in a research project.
- Restricted range of outcome measures may have reduced observed relationships.
Future Research

- Many, many research questions are left unanswered!
- What is the relationship between parent behaviors that support learning and language, and other child outcomes?
- How do the constructs of parental participation in learning (behaviors) and perceived professional support change over time?
- What is their influence at different times in the life of the adolescent parent? How do they influence the child at different developmental periods and transitions, in different contexts, in relation to alternative developmental domains?
Future Research Directions

- What is the best way to operationalize and characterize parent behaviors supportive of language and learning? How do we best capture it?
- What are effective models of professional support that are responsive to individual parent and child needs, and effective in producing important parent and child outcomes?
- How is the role of professional support altered in the face of other forms of support experienced by the adolescent parent? What is its relative importance?
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References


