

Rurality and Reading Readiness: The Longitudinal Effects of Setting on Parent Engagement and Children's Early Literacy

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Introduction

- Early family engagement in language and literacy activities is important for preschoolers' overall learning and school readiness.
- Parents' engagement in young children's early literacy and learning is linked to many important language and literacy skills (e.g., vocabulary size, alphabet knowledge, and learning behaviors).



Introduction

- Early reading experiences in the home predict later language and literacy readiness in Kindergarten.
- Thus, early parent engagement in home literacy practices has a longitudinal effect on children's skill development.



Introduction

- Parent engagement takes many forms, and as defined here concerns parental practices and provisions that support early language and literacy skills for preschoolers.
- This may include reading books together, telling stories, singing songs, reciting nursery rhymes, and going to libraries.



Introduction

- Little is known about how setting (i.e., rurality) influences parents' engagement in these activities and the effect of their engagement on children's school readiness.
- What research is available suggests parent involvement in rural settings benefits children, just as it does in urban and suburban settings.
 - Studies limited to traditional forms of involvement in school-based activities during the elementary years.
 - Lack of comparison group so can't directly compare to non-rural counterparts.



Introduction

- Conditions in rural areas may differentially impact parent engagement and its impact on school readiness.
 - Diminished resources and income potential may negatively impact parent engagement, and in turn, children's skill development.
 - Conversely, parents may provide more experiences in the home to make up for limited community resources; thus, parent engagement may have a greater impact in rural settings.



Research Questions

- What is the relationship between setting (city, suburban, town, rural) and children's Kindergarten literacy?
- What is the relationship between setting and parents' preschool literacy engagement?
- Does parent literacy engagement during preschool mediate the relationship between setting and children's Kindergarten literacy?



ECLS-B Database

- This study was a secondary analysis of the Early Childhood Longitudinal Study, Birth Cohort (ECLS-B).
 - A study sponsored by the National Center for Education Statistics (NCES), U.S. Department of Education.
 - Followed a nationally representative sample of children born in the United States in 2001.
 - Examined the systemic interactions of the child, family, childcare, health care, educational system, and community on children's overall health, social-emotional development, and intellectual capacity that influence children's school readiness



Materials and Methods

- Participants
 - $N = 6,550$ children entering Kindergarten in 2006 or 2007
- Procedure
 - Structured parent interview
 - Direct child assessment



Unweighted Descriptive Statistics for the Study Sample

Study Variable	Percentage/Mean (SD)
<u>Child</u>	
Male	51.1%
Race/Ethnicity	
White	40.5%
Black	16.0%
Hispanic	20.6%
Asian	11.5%
American Indian or Alaska Native	3.1%
More than 1 race	8.4%
Kindergarten assessment age in months	68.2 (4.3)
<u>Parent</u>	
Primary respondent is biological mother	95.4%
<u>Family</u>	
Highest parent education level	
Less than a high school degree	9.8%
High school degree or equivalent	22.0%
Vocational or technical program degree	5.3%
Some college	26.5%
Bachelor's degree	17.4%
Advanced schooling beyond Bachelor's	18.9%
At or above 100% poverty threshold	75.4%
2 or more adults in the home	86.9%
Primary language in home is English	79.2%



Study Variables and Measures

- Geographic Setting (predictor variable)
 - Household zip combined with American Community Survey to create locations defined by National Center for Education Statistics and U.S. Census Bureau
 - We collapsed locations into four groups:
 - *city* ($n = 1,950$)
 - *suburban* ($n = 2,550$)
 - *town* ($n = 850$)
 - *rural* ($n = 1,100$)



Study Variables and Measures

- Parental Preschool Literacy Engagement (mediating variables)
 - Home literacy materials (number of books in the home)
 - Children's exposure to the library (take child to public library, borrow books from library, borrow other materials, take child to story hour)
 - Parental language and literacy behaviors (read books, tell stories, sing songs)



Study Variables and Measures

- Children's Kindergarten Literacy (outcome variable)
 - Broad measure of early child language and literacy skills using newly developed items and existing items from well established measures
 - PreLas 2000
 - PPVT-III
 - Pre-CTOPPP



Study Variables and Measures

- Covariates (control variables)
 - Child age
 - Child sex
 - Child race/ethnicity (proxy for family race/ethnicity)
 - Family SES



Analysis

- Structural equation modeling in *Mplus*
 - Multiple pathways examined simultaneously
 - Confirmatory technique
 - Two models tested to evaluate research questions



Model 1

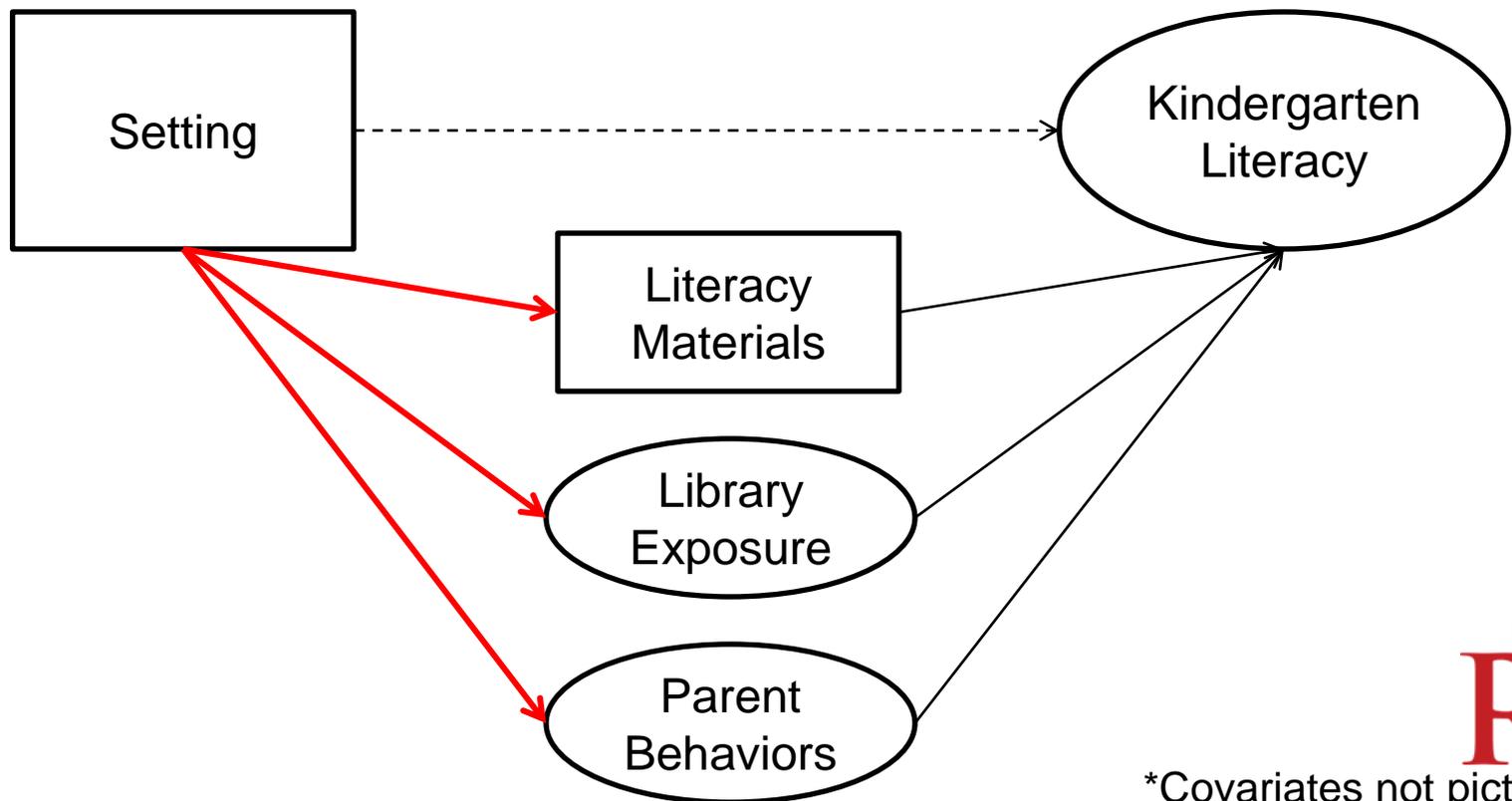
- What is the relationship between setting and children's Kindergarten literacy?



*Covariates not pictured

Model 2

- What is the relationship between setting and parents' preschool literacy engagement?

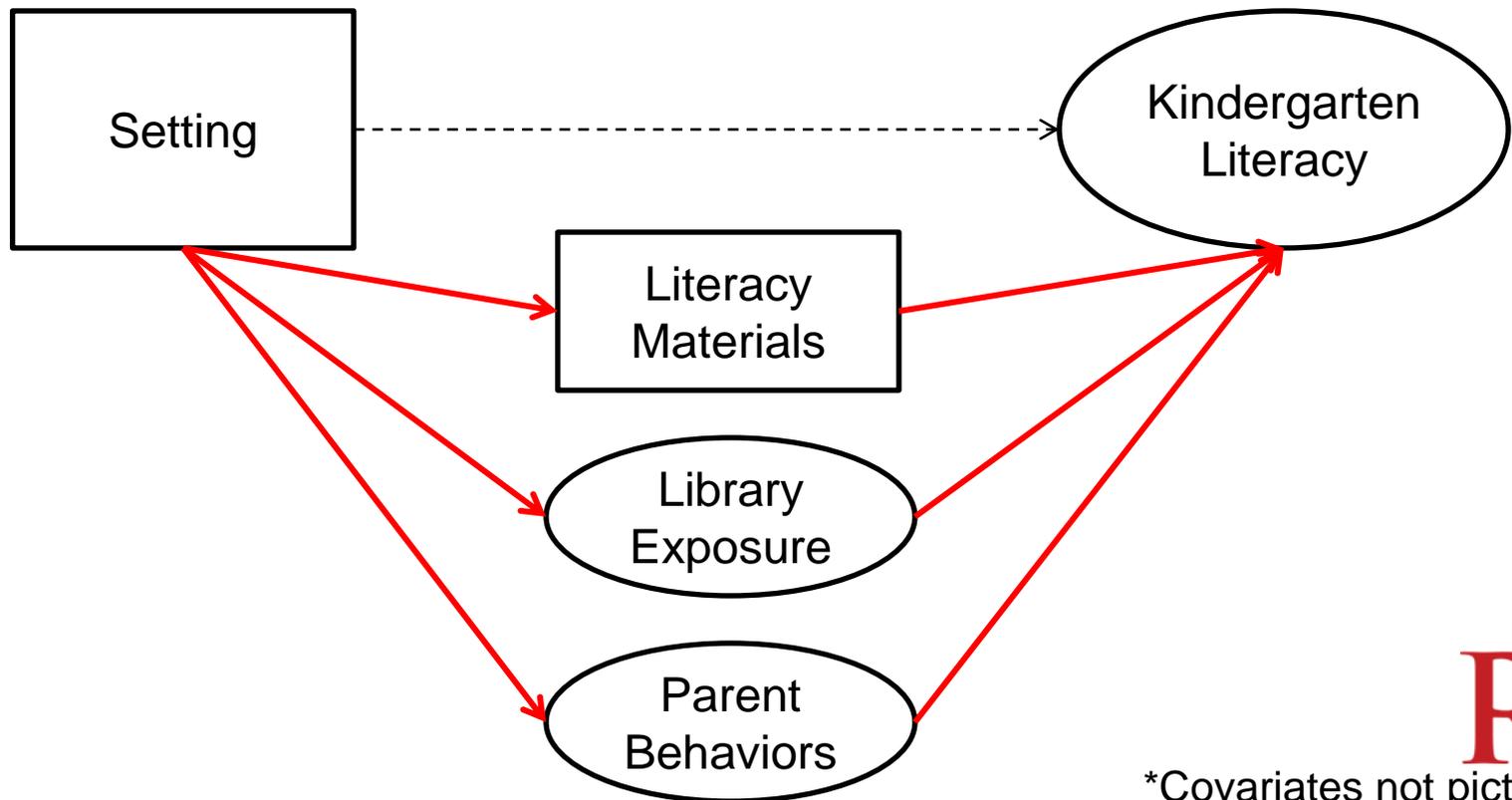


*Covariates not pictured



Model 2

- Does parent literacy engagement during preschool mediate the relationship between setting and children's Kindergarten literacy?



*Covariates not pictured



Findings

- What is the relationship between setting and children's Kindergarten literacy?
 - Suburban children had higher reading scores when entering Kindergarten than rural children
 - No differences in Kindergarten reading scores between rural children and city and town children



Findings

- What is the relationship between setting and parents' preschool literacy engagement?
 - Setting predicted library exposure
 - City and suburban children were exposed to the library more than rural children
 - No differences in library exposure between rural and town children
 - Setting did not predict literacy materials nor parent language and literacy behaviors



Findings

- Does parent literacy engagement during preschool mediate the relationship between setting and children's Kindergarten literacy?
 - Library exposure mediated the relationship between setting and children's Kindergarten literacy
 - Setting indirectly predicted Kindergarten literacy through library exposure: City and suburban children were exposed to the library more than rural children, and library exposure positively predicted children's Kindergarten literacy



Discussion

- Cognitively stimulating resources, (e.g., libraries and museums) may be limited in rural communities due to financial resources, population density, and proximity to metropolitan areas.
- Further research is needed to better understand the structural characteristics of rural communities and how they influence young children's learning and development.



Discussion

- Differences in family engagement and home learning environments are not due to the influence of rural settings, but family demographic characteristics (i.e., SES and race/ethnicity).
- Rurality does not appear to depress parents' engagement in language and literacy behaviors, nor prevent them from creating a stimulating home literacy environment.



Discussion

- Differences in Kindergarten literacy still exist between suburban and rural children even after accounting for differences in parent literacy engagement
 - Suggests additional mediating variables for which suburban children are advantaged
- No overall differences in Kindergarten literacy between city and rural children despite city children's greater exposure to the library
 - Suggests additional mediating variables for which rural children are advantaged



Limitations

- Inferences limited to children born in the U.S. in 2001 when they were in preschool and Kindergarten
- Select number of parent engagement variables
- Use of self-report rather than observational data
- Other mediating factors need to be considered



Future Directions

- Conditions in rural settings need to be better understood to determine what factors promote strong literacy skills.
- Distinctive features of rural contexts need to be examined to identify important mediating factors that can be manipulated to promote optimal learning outcomes for children in rural communities.



Thank You!

For questions or comments
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