New Insights into Early Language Home Environments of Infants in Low Income Households

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Overview
- Early language experiences are foundational to school readiness and subsequent academic success.
- Studies of structured tasks in labs provide limited information about natural early language experiences at home.
- Time diaries coupled with audio recordings provide an unique window into the natural language environments of infants.

Research Questions
Using time diary data (to be validated with audio recordings),
• Who is present in infants’ early language home environment?
• What is the prevalence of playing, reading and watching TV?

Sample
Data were collected from 30 mother-infant pairs served by a population based NYC home-visiting program.
• On average, mothers were 29.8 years old (SD=7.15)
• 90% primarily spoke English
• 37% were first–time mothers
• 43% reported breastfeeding their infant
• 76% reported receiving WIC
• Families were residentially stable; having lived in the same address, on average, for 3.7 years (SD=1.12)

Methods
• Families participating in a larger study were re-contacted when their child was 3-to 5 months old.
• Consenting families agreed to audio recordings of their infant for a minimum of 10 hours.
• Mothers completed time diaries on the day of the recording and returned them the next day.
• In the intervention group, a random half of the mothers received supplemental content on early language and literacy via text messages, an in-person affirmation coupled with a video demonstrating responsive parent-child interactions, and a book gift package.

Conclusion
• Mothers and siblings have the highest presence at home over the course of a day in low income households with infants
• Play is the most common activity distributed relatively evenly over the course of the day. TV watching is more prevalent than reading, especially between 8 and 10am.
• Infant households that received early learning enhancements were slightly more likely to play and less likely to watch TV over the course of the day.

Future plans: Maternal-infant language interactions with audio data is being transcribed to code word tokens and word types to test intervention differences in the amount and quality of child-directed speech.

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