

Quality of Childcare Affects Language Development

WATCHING A BABY GO FROM BABBLING TO WORDS SEEMS LIKE A MYSTIFYING PROCESS TO THOSE WHO WITNESS IT. Yet young children follow a fairly consistent pattern in their acquisition of language. This pattern is important because language develops rapidly and has been shown to affect later school readiness.

A study published in the *Journal of Applied Developmental Psychology*, examines for the first time how the quality of childcare affects the development of specific language components. The study is unique in that participants were demographically homogenous—all were white children of dual earner parents who had some level of higher education and were of middle income.

In every measurement used, children in higher quality childcare significantly outperformed those in lower quality childcare. And the quality of care made a greater difference over time. Children in higher quality care acquired key markers at a more rapid rate over time than the children in lower quality care.

Previous studies examining the relationship between quality of childcare and language have used teacher rating scales or standardized tests as measures. This is the first study to observe children in their natural environment focusing on syntactic and semantic development. It was longitudinal covering the critical early years of life and thereby providing a broader understanding of how features of language development might be affected by the quality of childcare and how these features might change over time.



Determining Quality of Childcare

Data were collected from three sites—a for-profit hospital-based center providing onsite care for employees, a university-based center, and a for-profit community-based center. Each was evaluated on three indicators of childcare quality—the number of children per classroom, the number of caregivers per classroom, and the child/caregiver ratio.

The hospital had significantly fewer caregivers, a large class size, and a significantly higher child/caregiver ratio. The ratio was one caregiver per eight children in the hospital; one caregiver per three children in the community-based center; and one caregiver per two children in the university-based center. As such, the hospital was determined to be of lower quality.

Methodology

At 18, 24, and 36 months of age, each child was videotaped while playing in a separate room with a familiar adult. Children had 15 minutes of free play with a snack break halfway through. The snack was designed to encourage common food related words from the child. Researchers transcribed and analyzed the tapes.

SYNTAX EVALUATION

Syntax (grammar) was evaluated by examining:

- number of questions asked;
- number of different types of questions asked;
- number of pronouns used;
- number of different types of pronouns;
- number of negatives used;
- number of different types of negatives;
- number of bound morphemes (prefixes and suffixes such as -s, ing, -ed, -er, and pre-);
- number of different bound morphemes; and
- average number of words used per utterance.

SEMANTICS EVALUATION

Semantics (words) was evaluated by examining the total number of words produced and the total number of different words used.

OTITIS MEDIA (EAR INFECTIONS)

Because frequent ear infections may impact language delay, children were examined weekly by a pediatric nurse to rule out infections. Ear infections cause a mild to moderate hearing loss that can last a few weeks or many months. All children were tested repeatedly through the three-year study. None were eliminated due to hearing loss.

Conclusions

Children in higher quality care had more advanced language development, especially at 24 and 36 months. Children in lower quality care became progressively further behind the children in higher quality care on all language measures. This finding was especially true for vocabulary, with children in higher quality care having double the number of different words by 36 months of age than those in lower quality care. These differences were greater over time, suggesting the cumulative effects of lower quality care. The number of ear infections a child had did not effect the outcome.

Unlike most childcare studies, there were no differences between quality of care and family educational and economic resources. All families were dual earners who had economic and educational advantages that would put their children at lower risk for language development delays. ■

To Learn More

Vernon-Feagans, L., Hurley, M. M., Yont, K. M., Wamboldt, P. M., & Kolak, A. (2007). Quality of childcare and otitis media: Relationship to children's language during naturalistic interactions at 18, 24, and 36 months. *Journal of Applied Developmental Psychology, 28*(2).