

## High-quality interactions with caregivers linked to larger vocabularies among toddlers born preterm

In the United States, approximately 1 in every 10 infants is born preterm. The smallest and youngest of these children at birth are at risk for delays in their development. For example, as a group, these children are slower than full term peers in developing language skills. A contribution to these delays is difficulties in interactions between caregivers and young children born preterm. In some studies, caregivers of children born preterm have been observed to be less supportive in their interactions with their children than caregivers of children born full term. However, other studies have found that caregivers of children born preterm and full term demonstrate comparable levels of sensitivity/responsivity. Extensive research shows that caregivers are key players in facilitating language growth in young children. Disruptions in caregiver-child interactions may compound the risk for poor language outcomes that children born preterm already have. The aims of this study were to examine how the caregiver-child interactions of children born preterm compared to those of their full term peers, to understand what may lead to poor caregiver-child interactions among families with children born preterm, and to explore how such interactions may be associated with language development over time.

This study included two groups of toddlers who had been born preterm ( $n = 39$ ) or born full term ( $n = 39$ ). Children born full term were matched to the preterm group according to sex and socioeconomic status. Children participated in the study at three ages: 18 months, 22 months (18 and 22 months were adjusted for prematurity in the preterm group) and 36 months. At 18 months, children completed the Bayley Scales of Infant and Toddler Development, an assessment of receptive language. At 22 months, all children completed a 15-minute play session with a caregiver and with a set of toys. The experimenter instructed the families to play as if there were at home. Research assistants analyzed the play sessions for the quality of interactions, including dyad fluidity/connectedness of communication, caregiver sensitivity/responsiveness, caregiver intrusiveness, caregiver verbal elaboration on topics, child's sustained attention with objects, and child engagement of caregiver. At 36 months, children returned to the laboratory and completed a task of receptive vocabulary, the Peabody Picture Vocabulary Test. For this measure, children are asked to point to the picture (of 4 choices) which corresponds to a spoken word.

The results showed that all caregivers, regardless of whether their child was born preterm, were generally supportive and engaged their child during the play sessions. At the same time, relative to caregivers of children born full term, caregivers of children born preterm were slightly more intrusive, meaning they were more likely to direct the play session rather than follow the child's leads. However, they were comparable on verbal elaboration and sensitivity/responsiveness. Moreover, child behavior was associated with caregiver behavior during the interactions. In both groups, children of caregivers who demonstrated greater sensitivity/responsiveness, increased verbal elaboration, and less intrusiveness at 22 months had larger vocabularies a year later at 36 months. The association was present even after receptive

language ability at 18 months was considered as another contributor to their vocabulary size. These patterns suggest that early caregiver-child interactions can have enduring links with children's language abilities that can be observed at the start of the preschool period. Caregivers of children born preterm may be more intrusive because of the stress they experienced during the child's early hospital stay or because the child may be more passive during play. Children, regardless of whether they were born preterm, depend on their caregivers to create a home environment that cultivates strong language development early in life.

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## **Publication**

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