

RESEARCH BRIEF



Analysis of Social Interaction Gestures in Infants with Autism

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The purpose of this study was to look at the early use of social interaction gestures in infants later diagnosed with autism.

Retrospective video analysis of family videos allowed us to examine the behaviors of infants prior to the time they were diagnosed with autism. This study included home videos of 14 typically developing children and 21 children later diagnosed with autism. These videos contained footage of the children between the ages of 9 and 12 months. The footage included a wide range of situations for each child (e.g., family play, vacation activities, birthdays and other celebrations, and daily routines such as eating and bathing). The videos were examined specifically for the way children used gestures of social interaction. These are gestures that attract or maintain the attention of another person, and in young children are demonstrated through such things as "peek-a-boo"

games, waving "hi" or "bye-bye", shaking one's head "no," clapping and dancing. Literature suggests that the earliest forms of non-verbal communication serve as a bridge to later spoken language and predict later language development in children with developmental delays and children with autism. Significantly, a deficit in social functioning is one of the main requirements for an autism diagnosis.

The researchers sought to address characteristics of

social interaction gestures that might be associated with later autism status, and predicted that having a limited variety in type of social interaction gestures would be associated with a child's later autism diagnosis, as would showing fewer child-initiated gestures and more prompted gestures.

"Peek-a-boo" games, clapping, and dancing are examples of early non-verbal communication.

This Research Brief is based on the following published article: Analysis of social interaction gestures in infants with autism, by Colgan, S. E., Lanter, E., McComish, C., Watson, L. R., Crais, E. R., & Baranek, G. T. (2006). *Child Neuropsychology*, 12(4), 307-319.

The videos were coded for the number and variety of social interaction gestures as well as how many were initiated by the child versus prompted by the adult. Sixty percent of the children later diagnosed with autism used no social interaction gestures at all in the videos, while the same was true for only 29 percent of the children in the typically developing group. More than half of the infants in the autism group who used any social interaction gestures exhibited only one type of gesture. This suggests the presence of differences in the early developmental paths of social-communicative skills among children with autism even at this young age and may be an important factor to keep in mind when planning interventions. Children who used a wide variety of types of gestures were more likely to be typically developing. In this study, the two groups of children did not differ in the total number of social interaction gestures, or in their use of child-initiated versus adult-prompted gestures. While children in the autism group and the typical group might have had similar numbers of social interaction gestures overall, children in the typical group were using a wider variety of these gestures. It is unclear, however, whether or not the lack of variety in gestures seen with the autism group is related to the developmental delay documented within this group. Due to the exploratory nature of this study, results should be interpreted as preliminary. Additional studies using comparison groups of children with other developmental de-

lays that do not have autism are needed to determine if our findings are unique to autism.

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