



Research Brief

A SUMMARY OF A PUBLISHED RESEARCH ARTICLE

Autism During Infancy: A Retrospective Video Analysis of Sensory-Motor and Social Behaviors at 9-12 Months of Age

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Currently autism cannot be diagnosed until 2 to 3 years of age, even though it is believed to be a disorder of prenatal origin. Researchers have, therefore, been interested in identifying earlier predictors of autism.

Children who have been diagnosed with autism display deficits in social-communicative and sensory-motor behaviors. Studies of young children 18-24 months indicate that a lack of certain social-communicative functions at this young age may be an early predictor of the later diagnosis of autism. These include the absence of pointing, showing objects, joint attention, affective exchanges, pretend play, and imitation.

This research study investigates the early sensory-motor and social behaviors in infants at 9-12 months of age who were later diagnosed with autism. A retrospective video analysis was used to assess very early periods of development

and to explore whether sensory-motor and social behaviors typical of autism were present during infancy. Thirty-two children were subjects in this study: 11 children with autism, 10 children with mental retardation, and 11 typically developing children. The videos were edited to obtain a 10-minute sample of the infant in various situations. The infants were then analyzed for various behaviors, which included: looking and gaze aversion, affect, response to social touch, postural adjustments, responsiveness to name, unusual motor and object behaviors, and sensory (tactile, auditory, visual, and vestibular) modulation.

This Research Brief is based on an article: Autism during infancy: A retrospective video analysis of sensory-motor and social behaviors at 9-12 months of age, by Baranek, G. T. (1999) published in the *Journal of Autism and Developmental Disorders*, 29, 213-224.

The results showed that by 9-12 months of age, the behaviors displayed in the infants later diagnosed with autism were different from those in children with mental retardation or typically developing children. As infants, the children with autism were more likely to demonstrate poor visual orientation and attention, delayed response to name, excessive mouthing of objects, and social touch aversions than the children with mental retardation or typical development. During infancy, the children with mental retardation displayed more stereotyped and inappropriate play, unusual posturing of body parts, decreased looking towards the person at the camera, visual fixation on objects, and less animated facial expressions than the children with autism and typical development. From the videos it was also evident that parents of children with autism often used compensatory strategies, such as repetition and prompting, to better engage their infants in social interactions and play.



Dr. Grace Baranek is an Associate Professor in the Division of Occupational Science in the Department of Allied Health Sciences at the University of North Carolina. Her research focuses on the early identification of children with autism and other developmental disorders.

She is the principal investigator on the Sensory Experiences Project and the Infant Behavior Project. To read more about her current research projects visit the Sensory Experience Project website www.med.unc.edu/sep



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