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## **STUDY: PARENT INTERVIEWS MAY PROVIDE KEY INFORMATION ABOUT AUTISM**

### ***Occupational Therapy-Based Research Finds Differences in the Sensory Experiences of Children with Autism Compared to Typically-Developing Children***

**Bethesda, MD** — Diagnosing and treating autism is a complex process that requires assessment of many factors. Evaluations of children’s sensory (sight, sound, smell, touch and taste) processing functions are often conducted as part of a multidisciplinary assessment. However, new research suggests that, because children with autism are unlikely to properly self-report their experiences, interviewing their parents may add important information to help families understand and better respond to the needs of their children, thereby easing challenges in daily routines.

This method—called the Critical Incident Technique—asks parents to determine situations where their child had a “good” sensory experience, situations where their child had a “bad” sensory experience and provide their own perception of how these experiences felt to the child. According to the study conducted by University of North Carolina at Chapel Hill researchers published in the latest issue of the *American Journal of Occupational Therapy*, the most common negative reactions for both typically-developing children and children with autism are related to sound, and the most common pleasant experiences for both groups involves touch and movement. Children with autism were reported to have more “unusual” sensory experiences and negative food-related experiences than their typically-developing peers.

“The ability of parents or other caregivers to adapt to their child’s sensory processing problems can influence the number, type or quality of shared experiences, both in a positive and negative way, and may facilitate or constrain engagement in daily family routines,” said study co-author Grace T. Baranek, PhD, OTR/L, FAOTA, professor in the Division of Occupational Science at The University of North Carolina at Chapel Hill. “Qualitative studies like this one can add to our knowledge of both autism and the sensory processing issues associated with it.”

A higher percentage of children with autism (59 percent) interpreted various sounds as unpleasant sensory experiences compared to typically-developing children (28 percent). Loud and unexpected sounds, such as fire alarms, dogs barking and fireworks, were the most common examples. In some cases, unpleasant sounds were predictable and both parents and children took measures to avoid or control the experience. Children expressed their discomfort with particular sounds in a number of ways, from stating they didn’t like the sound to covering their ears.

Parents tried to make sense out of their children’s responses to sound. “Being able to understand what bothers a child, and under what circumstances, makes it possible for the parent to avoid the situations, prepare the child or employ other strategies to diminish the impact on the child,” said Baranek.

Touch as a positive experience was reported by 24 to 29 percent of parents in both groups. The majority of the positive touch accounts for both groups involved interpersonal touching (i.e., cuddling or snuggling with a parent, having a backrub, being tickled, etc.). Negative touch experiences, which were reported by only a small number of parents, were related to the face and head—not wanting to have ears cleaned, wiping food off the tongue, having the face touched and aversion to haircuts.

A quarter of parents in both groups reported positive movement-related experiences. The type of positive movement did not vary between the groups—swinging, jumping, spinning, etc.—but parents of children with autism emphasized, in some cases extreme and repetitive, jumping.

Food-related experiences were reported as positive examples for 21 percent of the typically-developing children but only for four percent of the children with autism. In contrast, 15 percent of the typically-developing children and 26 percent of the children with autism reported negative food-related experiences. Issues related to food were not limited to one sensory aspect, but rather included texture, taste, smell, visual aspects of the food itself and having the food on hands or tongue, as well as other considerations such as predictability, routine and novelty. Positive food experiences were briefly described in terms of taste (sweet, sour, spicy), temperature (cold), and/or texture (crunchy, soft).

“Unusual” sensory experiences were reported by 36 percent of parent of children with autism. Reports focused on behaviors such as hand flapping, having to chew on things, not responding to extreme cold, and as one mother said, being “dull to things.” Parents described some of these activities as self-stimulation and linked them to their child’s diagnosis.

“Children in both groups reacted negatively to some sounds, responded positively to movement and disliked certain foods or sensory aspects of foods. We did, however, sense a qualitative difference in the way parents reported these experiences,” said Baranek. “Parents of children with autism were more likely to recognize elements in their children’s experiences as being sensory and likely to attribute responses to aspects of autism, per se. And while some of the parents in both groups reported strong reactions to sensory input, such accounts by the parents of children with autism described more extreme responses, and sometimes included unusual behaviors.”

**Methodology:** This qualitative descriptive study was conducted as part of an ongoing National Institute of Child Health and Development (NICHD)-funded grant, the Sensory Experiences Project, studying sensory features in preschoolers with and without autism. In this portion of the study one or both parents of the children with and without autism were interviewed using an open-ended interview based on Flanagan’s Critical Incident Technique. Parents of 66 preschoolers (29 typically-developing children and 37 children with autism) were interviewed.

**Authors:** Along with Baranek, study authors from the University of North Carolina at Chapel Hill were Virginia A. Dickie, PhD, OTR/L, FAOTA, associate professor and director of the Division of Occupational Science; Beth Schultz, MS, OTR/L, training coordinator for the Sensory Experiences Project; Linda R. Watson, EdD, associate professor in the Division of Speech and Hearing Sciences; and Cara S. McComish, MA, CCC-SLP, a PhD candidate in the Division of Speech and Hearing Sciences.

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