Psychometric Validation of the Sensory Experiences Questionnaire

Young children with autism have higher rates of sensory processing problems than typically developing children or children with other developmental disabilities. Patterns of sensory processing are commonly described in terms of hyperresponsiveness and hyporesponsiveness. Hyperresponsiveness refers to an exaggerated response to sensory stimuli. Hyporesponsiveness refers to a diminished response to sensory stimuli. Baranek et al. (2006) found that hyporesponsiveness in social and nonsocial contexts was more characteristic of children with autism. However, caregivers are more likely to attribute their child’s difficulties to hyperresponsiveness. Therefore both sensory patterns are considered during assessment and intervention.

Occupational therapists commonly use caregiver reports, in addition to clinical observations, to describe a child’s sensory profile. These caregiver reports are an invaluable part of the assessment because they provide perceptions of the child’s behavior over time and in a variety of contexts. Though there are several sensory processing assessments available, few are suitable for very young children with autism. The Sensory Experiences Questionnaire (SEQ) was designed specifically to measure the full range of sensory processing problems in both social and nonsocial contexts that are unique to autism, and can be used with children between the ages of 6 and 72 months.

This study further examined the reliability of the SEQ and to test the consistency between initial testing and re-testing.

The SEQ measures hyper- and hyporesponsiveness in social and nonsocial contexts. It provides a score for each of those subscales as well as an overall score. The questions on the SEQ reflect the five senses: Visual, Tactile (touch), Auditory (hearing), Vestibular—Proprioceptive (balance and movement), and Gustatory—Olfactory (taste and smell). Caregiver responses use a 5-point scale, from 1 (almost never) to 5 (almost always). Higher scores indicate more sensory processing problems. The questionnaire also includes some descriptive questions.

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Participants in this study were parents of children between 6 and 72 months old belonging to one of three groups: children with autism, children with developmental delay, and typically developing children. 358 caregivers participated in the study to measure internal consistency of the SEQ. A subgroup of 24 completed the questionnaire a second time to measure test-retest reliability.

**Reliability was evaluated** at the level of the total score, subscale score, and individual item. Both the internal consistency and the test-retest reliability of the total score was very high, suggesting that the questionnaire accurately depicts young children’s sensory processing patterns. Individual subscales showed good test-retest reliability as well. The test-retest reliability of individual items varied from fair to excellent, so certain behaviors may be observed or conceptualized differently by the same caregiver over time or in different contexts. Parents may be more likely to consistently report sensory experiences that are more frequent, more intense, or particularly disruptive.

The core deficits of autism—communication, social interaction, and repetitive behavior—are likely to interact with the sensory experiences of children with the disorder. For example, the processing of sensory information may differ considerably in social and nonsocial contexts. Such aspects can be measured separately and reliably with the SEQ model.


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For more information about The Sensory Experiences Project please visit our website: [http://www.med.unc.edu/sep](http://www.med.unc.edu/sep)