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Title: **Observing Sensory Processing & Social Communication Patterns in Older Adolescents with Autism Spectrum Disorder**

**ABSTRACT:**

This paper presents a framework, based on sensory processing preferences, for preparing older adolescents with Autism Spectrum Disorder (ASD) and social communication disorders (SCD) for successful transitions into post-secondary education, independent living, or the workforce. ASD is a neurodevelopmental disorder characterized by a range of deficits in social communication, social interaction, and the presence of restricted, repetitive behaviors (ASHA.org). The American Speech-Language-Hearing Association (ASHA) describes social communication skills as the ability to vary speech style, take the perspective of others, understand and appropriately use the rules for verbal and nonverbal communication, and use the structural aspects of language (e.g., vocabulary, syntax, and phonology) to accomplish these goals. Neurodevelopmental disorders like ASD can be characterized by sensory processing profiles that predispose the avoidance or seeking-out of sensory stimuli (e.g. tactile, olfactory, visual, proprioceptive, auditory, gustatory), altering the individuals' perceptual experience. This includes the sensory processing of aesthetic experiences, noise, smell, pain, and other people' moods and/or feelings (Grimen & Diseth, 2016). Variations in interpretation and organization of sensory information may produce differences in development, informational processing, communication, and behavior. The purpose of this poster is to bring an awareness of sensory-base interventions for successful social communication outcomes in older adolescents with ASD and other SCDs.

This work investigates the relationships between individual sensory processing preferences and social communication outcomes in a clinical intervention program for older adolescents with ASD and SCD. This population needs explicit instruction and predictable environments to best learn to communicate socially (Waller, et. al., 2016). Participants self-report and rate specific sensory experiences using a modified sensory processing inventory, while trained healthcare providers evaluate their observations of sensory patterns of the participants engaged in social communication activities. Reciprocal sensory response patterns are then correlated to target social communication behaviors. Data also include differential associations between sensory response patterns and social communication. The sensory response factors associated with improved social communication consists of: attending to social boundaries, sustaining mutual attention, responding with relevancy, achieving message accuracy, and reducing information redundancy. One direct result of this project was the redesign of instructional materials geared towards increasing independence, generalization, and communication skills of this population.