

Sensory Processing and Autism

Efficacy Rating
Level #4

What is it?

In their search for information about autism spectrum disorder (ASD), families will learn about sensory processing, commonly also called sensory integration. There is a wealth of anecdotal evidence suggesting that people who have ASD also process sensory information differently. The anecdotal evidence is supported by studies that have found that children with ASD differ significantly from children without disabilities in their sensory processing behaviors as measured by the Sensory Profile.

Common differences in sensory processing include aversion, seeking and modulation of sounds, touch, movements, oral sensations, pressure, and sight. Differences in sensory processing can be displayed by behavioral challenges, such as self-stimulation, self-injury, aggression, avoidance, rigidity, anxiety, and panic attacks although these behavioral challenges may have other causes.

As part of a child with ASD's overall assessment and for intervention planning, it could be beneficial for a team to conduct an evaluation of the impact of sensory experiences on the child's ability to function within their environment.

Efficacy:

Although sensory processing differences in individuals with ASD have been widely described, the effectiveness of sensory processing interventions is questionable. Some intervention strategies have been helpful to specific individuals with autism, yet, successes have not yet been reproduced in studies of groups of individuals with autism.

Following is a brief review of the evidence for some common intervention strategies:

1. **Auditory Integration Training (AIT)**: The evidence suggests no benefit to at best a slight decrease in sound sensitivity and slight behavioral improvement.
2. **Sensory Integration Therapy**: Very few studies have been published. Some studies are showing small progress others none. Further research is needed in this area.
3. **Self-regulation** (The Alert Program): Studies describing the self-regulation skills of children with ASD were found, no articles about The Alert Program or other self-regulation interventions were found.
4. **Wilbarger** (brushing or deep pressure) protocol: Mention of tactile defensiveness is common in the ASD literature but no studies looking at the efficacy of the Wilbarger or similar protocol were found. There is preliminary evidence suggesting that deep pressure and massage could be helpful.
5. **Visual Therapies**: There is preliminary finding suggesting that wearing prism lenses may have short-term positive behavioral effect and improve spatial orientation.

In spite of the limited evidence, these sensory processing interventions are frequently used, primarily by occupational therapists (OTs), in treating children with ASD and are valued by parents. It should be noted that there is no OT specialty certifications for either ASD or sensory processing treatments.

R Kientz, M., A., & Dunn, W. (1997). A Comparison of the Performance of Children with and without Autism on the Sensory Profile. *American Journal of Occupational Therapy*, 51(7), 530-537.

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Updated May 2006

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Tools, Materials, Curriculum:

Sensory Challenges and Answers - Video
Grandin, Dr. Temple

Temple discusses the sensory problems people with autism may face. She also gives ideas as to how one can best face these challenges.