Sensory Integration Therapy and Occupational Performance in Children with Autism

Keira Ashford, OTS, Denae Baker, OTS, Ajah Griffin, OTS, Charslyn Patterson, OTS, Kaylie Williamson, OTS

Abstract

Purpose: This review addressed the effectiveness of sensory integration therapy for increasing occupational performance in children aged 6–12 years diagnosed with autism spectrum disorder (ASD). Methods: Most studies included in this review involved a cross-sectional design. Studies were retrieved in a two-stage screening procedure using the online software program Covidence, with duplicates removed before screening. The articles were first screened by title and abstract to determine whether they were relevant. When a study met eligibility criteria, the full text was downloaded and independently reviewed to confirm eligibility. Results: Nine studies were included in the review, and most found sensory integration therapy improved occupational performance in children with sensory processing disorder (SPD). Several studies reported improved occupational performance in areas such as social engagement, sleep and gastrointestinal problems, visual and auditory processing, executive functioning, and challenging behaviors. One study did not support sensory interventions for feeding problems in children with ASD, one noted minimal or no change in behavior, and one showed some parents found sensory-based interventions helpful, unhelpful, or were unsure of their effectiveness. Conclusions: Sensory interventions can have a positive effect on children with ASD and are shown to improve occupational performance. However, more research and studies need to be conducted on the usefulness of sensory interventions for children with SPD.

Methods

The online search included the following electronic databases: PubMED, PsychINFO, EmBase, Scopus, and the Cumulative Index to Nursing and Allied Health Literature (CINAHL). Inclusion criteria:

• participants were children aged 6-12 years
• integration therapy was used as an intervention
• published between June 2017 and April 4, 2022

Exclusion criteria:

• article was a systematic review or meta-analysis
• study participants were 13 years or older
• sensory integration therapy, autism spectrum disorder, or a pediatric population were not included in the title and/or abstract
• article not published in English

Boolean terms and phrases:

| Condition: <autism spectrum disorder> OR <developmental disorders>
| Intervention: <sensory integration therapy> OR <sensory interventions> OR <Ayes sensory integration>

Results

Nine articles were included in the current review, which found:

• Scores on the short child occupational profile (SCOPE) and all domains of the sensory profile (SP) were significantly greater in students who received the sensory activity schedule (SAS) intervention compared to individuals who did not receive the sensory integration therapy.
• Some studies used sensory-based interventions questionnaires to address challenging behaviors.
• Greater improvement in behavior challenges was seen in the children who experienced taste, smell, tactile hypersensitivity, and anxiety.
• Some interventions involved small sample sizes.

Conclusions

• Sensory interventions can have a positive effect on children with autism spectrum disorder and are shown to improve occupational performance.
• More research and studies need to be conducted on the usefulness of sensory interventions for children with sensory processing disorder.
• More research needs to be conducted on more diverse populations.