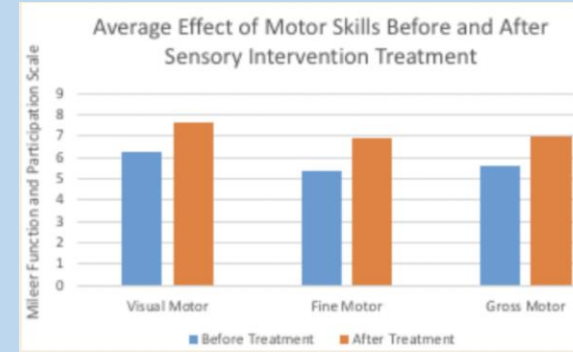


Sensory Integration for Children in Occupational Therapy



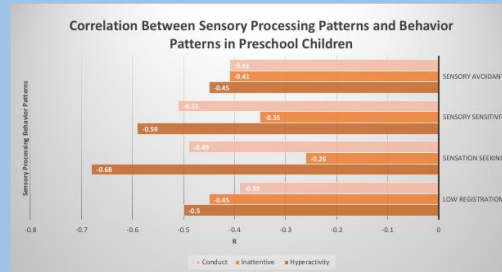
Treatment Length: Both long term and short-term treatment lengths are successful, especially when parents are given techniques too. Social, conceptual and practical skills have been seen to improve with moderate to large effect sizes ($r > .45$). Gross, fine and visual motor improvements have been seen of large effect sizes ($r > .52$). Seeing moderate to large improvements in multiple fields demonstrates the wide range of improvement sensory integration provides for many children's lives. (Schoen 2018).



Children with ADHD

Sensory integrations has been shown to have positive effects on children with ADHD. One case study revealed qualitative data that showed that the one child, JP, had improved counting skills and a positive outcome on behavioral growth after this intervention (Huda & Agustyaningrum, 2019).

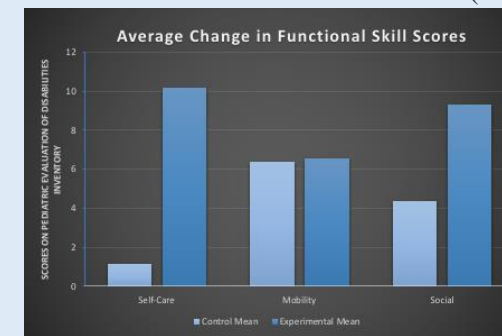
Children without pre-existing disabilities



Children without pre-existing conditions but facing sensory processing disorder face higher levels of conduct, inattentiveness and hyperactivity in their behavioral pattern. These behaviors are significantly correlated with low registration, sensation seeking, sensory sensitivity and sensory avoiding in preschool and elementary school aged children ($p < .001$). The graph above displays how sensory integration/intervention can be useful in many children (Abaas 2018).

Children with Autism Spectrum Disorder

Children diagnosed with autism spectrum disorder were divided into two groups: one which received the intervention for 30 hours over the course of 10 weeks and the other remained the control group. A two-tailed independent samples t-test concluded that the group that received the intervention achieved significantly higher scores on a parent-reported goal attainment scale ($p = 0.003$). These scores reflect individual change throughout the study. As the graph displays, the intervention was most successful at improving the child's self-care skills and social interaction skills (Schaaf et al., 2014).



In a different study, there were two different intervention groups of children with autism: one received sensory integration therapy and the other group had a focus on fine-motor skills. The researchers compared the two groups SRS scale which found a significant difference ($p < 0.05$ with an effect size = 0.13) meaning that sensory integration interventions likely impacted core symptoms of ASD.

Sensory Integration is a therapeutic intervention focused on the processing of sensory input including vestibular movement, proprioception and responding appropriately to the given sensory stimulation. Sensory Integration is useful in treating children with autism, ADHD, and children without pre-existing disabilities but displaying behavioral problems or lacking the coping abilities to self-regulate. Sensory integration therapy can work to improve a child's self-care habits, social skills, motor skills (visual, fine, and gross) as well as regulating autistic mannerisms ("Sensory Integration Global Network", n.d.).

References

- Abbas Nesayan, Roghayeh Asadi Gandomani, Gita Movallali & Winnie Dunn (2018) The relationship between sensory processing patterns and behavioral patterns in children, *Journal of Occupational Therapy, Schools, & Early Intervention*, 11:2, 124-132, DOI: 10.1080/19411243.2018.1432447
- Huda, S., & Agustyaningrum, N. (2019). An Analysis of Sensory Integration Approach on Counting Skills Among Children With Special-Needs. *Malikussaleh Journal of Mathematics Learning*, 2(2), 52–55. <https://doi.org/10.29103/mjml.v2i2.1406>
- Pfeiffer, B. A., Koenig, K., Kinnealey, M., Sheppard, M., & Henderson, L. (2011). Effectiveness of sensory integration interventions in children with autism spectrum disorders: a pilot study. *The American journal of occupational therapy : official publication of the American Occupational Therapy Association*, 65(1), 76–85. <https://doi.org/10.5014/ajot.2011.09205>
- Schaaf, R. C., Benevides, T., Mailloux, Z., Faller, P., Hunt, J., van Hooydonk, E., Freeman, R., Leiby, B., Sendeki, J., & Kelly, D. (2014). An intervention for sensory difficulties in children with autism: a randomized trial. *Journal of Autism and Developmental Disorders*, 44(7), 1493+. https://link.gale.com/apps/doc/A373748490/AONE?u=nysl_sc_ithaca&sid=AONE&xid=b3e5c21e
- Schoen, S. A., Miller, L. J., & Flanagan, J. (2018). A retrospective pre-post treatment study of occupational therapy intervention for children with sensory processing challenges. *The Open Journal of Occupational Therapy*, 6(1). <https://doi.org/10.15453/2168-6408.1367>
- Sensory Integration Global Network. *Ayres Sensory Integration*. Retrieved from <http://www.siglobalnetwork.org/ayres-sensory-integration>