



Ashtavakra Institute of Rehabilitation Sciences & Research
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TOPIC- Sensory Integration

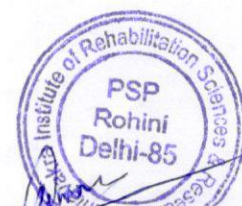
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NAME OF THE JOURNAL (APA) - Vives-Villarraig, J., Ruiz-Bernardo, P., & García-Gómez, A. (2022). Sensory integration and its importance in learning for children with autism spectrum disorder. *Cadernos Brasileiros de Terapia Ocupacional*, 30, e2988.

ABSTRACT

The term disabled was changed to differently abled was not just a moral standpoint but it was based on the fact that these people are in fact in reality , different in the way they perceive the stimuli they receive from the world and that should not be defined as a disability but a different way of functioning, i.e. the way their sensory integration works is different from a normal person .

Thus, to help them learn the workings of the world we need to understand their inner world first, thus the aim of this article was to address the concept of sensory integration and its influence on learning, especially in children with Autism Spectrum Disorder (ASD).

Scientific literature has also shown that there is a close relationship between sensory integration and learning, thus it would be beneficial to understand students' sensory integration to help them in the learning process effectively. The



results obtained support the idea that children with ASD often present difficulties in this sensory integration process, and that this is the explanatory cause of some of the learning and behavioural problems they present. The aim of this work was to raise awareness of the need to consider this aspect during diagnosis and/or intervention in order to favor the genuine inclusion of children with ASD in society.

Objective: To provides a narrative synthesis of the need to address processes related to sensory integration in order to support the awareness-raising process for professionals and families who care for children with ASD, and thus favour the stimulation of these cognitive and physiological processes that are so important in the autonomous development of children with ASD in everyday activities.

Methods: The methodology used for this article is based on a narrative literature review , guided by the objective established for this article.

Results: That children with ASD brains register sensory information incorrectly. Thus, they may pay too much attention to some things and too little to others. Another key aspect is the difficulty they may have in modulating sensory information, especially at the tactile and vestibular level, which is why they may react defensively to tactile sensations and exhibit behaviours that indicate gravitational insecurity. Thus, all this impacts their adaptive and stereotyped behaviour. It was also found that children with autism show lower levels of cortical activation which can be activated by sensory stimulation and cognitive tasks.

Conclusion: The human organism contacts the world around us through a complex network of receptors spread throughout the body. These receptors constantly send information to the nervous system about what is happening around and within us. Apart from our five senses it also includes vestibular and proprioceptive systems. People with ASD usually have significant difficulty in responding correctly to sensory stimuli as a consequence of a perceptual deficit. The difficulty they may have in modulating sensory information, especially at the tactile and vestibular level, is why they react defensively to tactile sensations and exhibit behaviours that indicate gravitational insecurity. The child acquires their own motor control following innate sequences influenced by information from the outside. Learning



depends to a large extent on individuals' ability to receive and analyse sensations from movement and the environment, and how they are able to use this to plan and organise their own behaviour. In the early childhood development stage children rely on their bodies and movement as the main vehicles that bring them into contact with the reality around them. Thus, the atypical integration of sensory stimuli hinders academic and social learning. That is why it is concluded that the early detection processes are important to prevent possible learning difficulties.

Keywords: sensory stimulation , sensory integration , ASD, stimuli, learning,

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