

What Playground Aspects Increase Social Participation in Children With Sensory Processing Disorder

Carolyn Lorber, Audrey DiMatteo, Julia Bieber, McKenna Pols

Faculty Sponsor: Carole Dennis

Sensory Processing Disorder (SPD) is characterized by problematic interpretation of external stimuli, such as sounds, sights, and textures, which results in inappropriate responses to the environment and often the feeling of being either overwhelmed or underwhelmed by one's environment ("Understanding Sensory Processing Disorder", 2017). Through observing how children with SPD play, it is clear that they play differently than their typically developing peers do, and this includes playing on the playground (Stanton Chapman & Schmidt, 2016).

Children with SPD may have a more difficult time playing because "deficits in sensory processing interfere with the ability to interact with people and objects" (Bundy, Shia, Qi, & Miller, 2007, p. 201). Children with SPD tend to engage in more sedentary play because active play involves more exertion by requiring both motor skills and the capacity to sustain energy, which results in them acting less playful (Bundy et. al, 2007). Therefore, for children with SPD, it is simply more fun to engage in less challenging, sedentary activities. Similarly, Cosby, Johnston, & Dunn (2010) agreed with this, and reported that children with SPD prefer games with less formal rules, such as games that promote pretend and imaginative play, simply because they are not as challenging, so they will not result in as much frustration. In addition, children with SPD tend to dislike games that utilize "processing skills, ability to sequence tasks, and frustration tolerance," and games that require motor planning, such as team sports, due to their poor motor skills (Cosbey et. al, p. 469). However, Benson, Nicka, & Stern (2006) expressed concern that the poor coordination in children with SPD could be what results in them having

such small networks of play companions, because children with poor coordination tend to play by themselves, and this seclusion further delays their development. Cosbey, Johnston, Dunn, & Bauman (2012) also found that children with SPD ages six to nine engage in less cooperative play in comparison to their typically developing peers. While most children in this age range are starting to spend the majority of their playtime engaging in cooperative play with others, children with SPD are still spending a good portion of their time participating in less socially mature types of play, such as solitary play, which involves playing by themselves (Cosbey et. al, 2012).

While most playgrounds are *accessible*, meaning that they provide physical access to the environment, not all are *usable*, which involves providing equal play opportunities to all children (Stanton-Chapman & Schmidt, 2016). Because play is vital to one's development, it is necessary to ensure that children with SPD are able to partake in all of the same play opportunities that their peers are able to, so that they can experience the benefits of play, which include positive influences on social development (Ripat & Becker, 2012).

While constructing a playground that seeks to benefit children with SPD, as well as all their peers who are typically developing, it is necessary to address disability first, because accessible components for those with disabilities usually work well for everyone else (Stanton-Chapman & Schmidt, 2016). Multiple studies show the use of familiar objects on playgrounds can increase social play in children with SPD because children with SPD are comfortable using them because they understand the purpose of the object (Prellwitz & Skar, 2007). In addition, Stanton-Chapman & Schmidt believed that even with a perfect playground, children with disabilities would not thrive to the greatest extent possible; in order to do so, it is necessary that they have a student partner (2016). This student partner can play with them, model good social interaction skills, and encourage their partner with disabilities to try out different social situations

(Stanton-Chapman & Schmidt, 2016). The best way to construct a playground to increase social play in children with SPD is to build a universally designed playground, where everyone's needs are met, so that children with and without disabilities can participate in play activities (Stanton-Chapman & Schmidt, 2016).

References

Benson, J., Nicka, M. & Stern, P. (2006). How does a child with sensory processing problems play?. *Internet Journal of Allied Health Sciences and Practice*, 4(4), 4.

- Bundy, A. C., Shia, S., Qi, L., & Miller, L. J. (2007). How does sensory processing dysfunction affect play? *American Journal of Occupational Therapy*, *61*, 201–208.
- Cosbey, J., Johnston S. S., & Dunn, M.L. (2010). Sensory processing disorders and social participation. *American Journal of Occupational Therapy*, *64*, 462-473. doi: 10.5014/ajot.2010.09076.
- Cosbey, J., Johnston, S., Dunn, M.L., & Bauman, M. (2012). Playground behaviors of children with and without sensory processing disorders. *OTJR: Occupation, Participation, & Health*, *32*(2), 39-47. doi: 10.3928/15394492-20110930-01.
- Prellwitz, M. & Skar, L. (2007). Usability of playgrounds for children with different abilities. *Occupational Therapy International*, *14*(3), 144-155.
- Ripat, J., & Becker, P. (2012). Playground usability: what do playground users say?. *Occupational therapy international*, *19*(3), 144-153.
- Stanton-Chapman, T. L., & Schmidt, E. L. (2016). Special Education Professionals' Perceptions Toward Accessible Playgrounds. *Research and Practice for Persons with Severe Disabilities*, *41*(2), 90-100.
- “Understanding Sensory Processing Disorder.” (2017). Retrieved from <https://www.spdstar.org/basic/understanding-sensory-processing-disorder>