



SENSORY PROCESSING DISORDERS IN INFANTS AND YOUNG CHILDREN

THE ROLE OF OCCUPATIONAL THERAPY

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The everyday activities of infants and toddlers provide important sensory experiences such as being held during feeding, splashing in the water while bathing, swinging and climbing at the park, and digging in the sand while playing at the beach. These sensory experiences help children learn about their world. They also have an important influence on the development of children's motor skills, perceptual and cognitive abilities, and social interactions. When children have difficulty registering, processing, or integrating sensory information, they may be over-responsive (e.g., hypersensitive to touch) or under-responsive (e.g., no regard for common dangers). If a child's response to sensory input interferes with his participation and performance on everyday tasks, he may need some extra help to manage his sensory world. A pediatric occupational therapist knowledgeable of sensory processing disorders in children can be an important member of the child's early intervention team.

WHAT DO WE KNOW ABOUT SENSORY PROCESSING DISORDERS (SPD)?

The daily lives of at least 1 in 20 children are affected by sensory processing disorders. (Ahn, Miller, Milberger, et al., 2004). These children may have a variety of challenges such as not paying attention to important information in the environment, having trouble attending to an activity or over-focusing on a task, having difficulty planning and coordinating motor skills, avoiding or seeking touch input, and having problems regulating their behavior, particularly during transitions or at other unpredictable events. These behaviors may co-occur with other conditions such as attention deficit and hyperactivity disorder, autism spectrum disorder, and anxiety disorders. (DC:03 Revised, (2005). Therefore, sensory processing disorders are often overlooked or misdiagnosed. (Miller, 2006).

WHAT ARE THE COMMON SIGNS OF SENSORY PROCESSING DISORDERS IN INFANTS AND YOUNG CHILDREN?

Some researchers describe a theoretical model in which children with sensory processing difficulties fall into four categories. Oftentimes, children have a mixed sensory profile, exhibiting behaviors in more than one category. A sensory processing disorder may be present when a child exhibits several, not just one or two, of the following behaviors across different settings and different situations (Dunn, 2002):

POOR SENSORY REGISTRATION – These children respond too slowly to sensory stimuli. They may appear uninterested, have low energy levels or low muscle tone, show decreased awareness of people, objects, or common dangers, or have a high tolerance to pain.

SENSORY SEEKING – These children can be disruptive and sometimes unsafe; not on purpose, but because they are looking for activities that provide them with specific types of sensory input (e.g., tactile, movement, visual, etc.). They are often overly active, impulsive, and excitable.

OVER RESPONSIVE TO SENSORY STIMULI – These children respond too quickly to sensory stimuli. They are often “on alert” making them distractible and hyperactive. For example, they may be very picky eaters or may not like to be cuddled. Some children are easily upset when they are over stimulated. They have a low tolerance to pain.

SENSATION AVOIDING – These children are also hypersensitive to sensory stimuli. However, they withdraw from situations they think will be too threatening. Providing structured routines can help these children function better. Sometimes they create their own rituals to keep things more predictable. They are often resistant to change.

WHAT IS THE ROLE OF OCCUPATIONAL THERAPY IN EARLY INTERVENTION PROGRAMS? (Schaaf & Anzalone, 2001)

- Assess the sensory demands of the child’s physical and social environments
- Assess how the child’s response to sensory demands influences participation in gross motor, fine motor, self-help, and play activities
- Provide modifications to the child’s environments and everyday activities/routines to help the child function at his optimal level
- Engage the child in fun, sensory-rich, play-based, and interactive activities to facilitate the registration, organization, and integration of sensory input to facilitate optimal motor and behavioral responses
- Educate parents by helping them understand their child’s behavior and provide ways to promote positive parent-child interactions
- Consult with other professionals on the early intervention team regarding how to modify the environment and adjust everyday activities or routines to promote the child’s participation

WHAT ARE THE BASIC PRINCIPLES OF INTERVENTION FOR INFANTS AND YOUNG CHILDREN WITH SENSORY PROCESSING DISORDERS? (Williamson & Anzalone, 2001; Stallings-Sahler, 1998)

- When children are provided with the “just-right” sensory input and motor demands based on their individual needs, they will usually respond at their optimum level. Their success in the activity helps them organize their behavior and motivate them to participate more fully in other everyday activities.
- Sensorimotor activities that are play-based and child-initiated are the most therapeutic
- Activities that carefully control the type, intensity, and duration of sensory input can either calm children who are over responsive or can alert children who are under responsive, allowing them to more fully participate in developmentally appropriate play and self-help tasks

WHAT ARE SOME KEY RESOURCES FOR PARENTS OF YOUNG CHILDREN WITH SENSORY PROCESSING DISORDERS?

www.SPDFoundation.net

<http://www.southpawenterprises.com/>

<http://www.pfot.com/>

REFERENCES

Ahn, RR, Miller LJ, Milberger S, et al. 2004. Prevalence of parents’ perceptions of sensory processing disorders among kindergarten children. *Am J Occup Ther* 58:287-293.

DC: 0-3 Revised. (2005). Regulatory Disorder of Sensory Processing. Diagnostic classification of mental health and developmental disorders of infancy and early childhood: Revised edition (DC:0-3R). H.L.Egger, E. Fenichel, A. Guedendy, B.K. Wise and H.H. Wright. Washington: Zero to Three, 28-34.

Dunn, W. (2002) *Infant/Toddler Sensory Profile: User's Manual*. Austin, TX: The Psychological Corporation.

Miller, LJ (2006). *Sensational kids: Hope and Help for Children with Sensory Processing Disorder*. Penguin Group, Inc: New York.

Schaaf, R., & Anzalone, N.E. (2001). Sensory integration with the infant and young child. In *Sensory integration with developmental disabilities*. San Antonio, TX: Therapy Skill Builders.

Stallings-Sahler, S. (1998). Sensory integration: assessment and intervention with infants and young children. In J. Case-Smith (Ed.). *Pediatric Occupational Therapy and Early Intervention*. Boston, MA: Butterworth-Heinemann.

Williamson, G.G. & Anzalone, M. (2001). *Sensory integration and self-regulation in infants and toddlers: helping very young children interact with their environment. Zero to Three*: Washington, D.C.