

FOCUS ON SENSORY CRAVING Britt Collins, MS, OTR and Lucy Jane Miller, PhD, OTR

In this column we are highlighting the first primary pattern, Sensory Modulation Disorder (SMD), discussed in previous columns. We will now focus on the third SMD subtype, Sensory Craving (SC).

Sensory Modulation Disorder (SMD): Sensory Craving

Individuals who crave sensory stimulation appear to be obsessed with obtaining additional sensory input. We label this subtype as Sensory Craving (SC). The difference among a) enjoying "fast or intense" sensation, b) seeking sensory input (a normal function), and c) craving sensation (never appearing to satisfy the individual's desires) is poorly defined in the literature. For example, many people enjoy pressure-point massages (intense sensation) or regularly complete an aerobic workout (providing fast sensation that is "normal"). Other individuals might seek an intense sport like skydiving, or even extreme kayaking (seeking sensation, still within the scope of normal sensory activity).

However, SC refers to even more intense, extreme behavior. SC is distinguished by observing that the receipt of sensory input is directly related to the degree of disorganization the person experiences (i.e., the more sensation, the more disorganized the person becomes).

Occupational therapy researchers differ in their theories about the relationship between Sensory Underresponsivity (SUR) and SC. Miller and colleagues (2007) propose that three subtypes of SMD exist independently: Sensory Overresponsivity (SOR), SUR, and SC. The treatment implications based on a choice of theory are profound. If you treat SOR, SUR, and SC the same, you will not get the same results because they are different subtypes of SMD. They present with different symptoms and respond to different treatment. "Children with SC display

extreme overarousal with constant movement. They are in your face and in your space. Children with underresponsivity, on the other hand, are extremely undergroused, lethargic, and withdrawn. Given these enormous differences in behavior, it seems unlikely that the parts of the brain (mechanisms) involved with sensory underresponsiveness and sensory craving could be the same—or even similar" (Bialer and Miller 2011, p. 125).

The following are red flags of SC in each sensory domain:

- Visual: Likes flashing lights, spinning objects, prefers TV and/or video games
- Auditory: Uses loud voice, makes background noises, enjoys noisy environments
- Taste/Olfactory: Licks or chews nonfood objects; bites on many objects; smells people, animals, or objects; sometimes prefers one type of food (e.g., spicy, sour, sweet)
- **Vestibular:** Constantly spins or wants to swing, engages in fast activities (e.g., biking, running, skiing, roller coasters); wants to be held upside down or tossed in the air
- Proprioception: Obsessive jumping, crashing, and pushing into things; unhappy unless clothing is tight fitting; likes to wear weighted vest; grinds teeth
- Tactile: Seems unable to stop constant touching, feels textures everywhere, messy play for long durations, mouths or bites objects

Differentiating children with attention deficit hyperactivity disorder (ADHD) from sensory cravers can be challenging. Todd Ognibene (2002) found that children with ADHD are more impulsive than children with sensory processing disorder (SPD) and children with SPD have more difficulty becoming accustomed to sensory stimuli than those with ADHD. When children with SPD are introduced to a new sensory stimulus (e.g., a loud noise), they have a large response and difficulty getting used to the new sensation. Imagine a fan that goes on and off. The first time it turns on you notice, but your brain says, "Don't worry, it's not important or dangerous," so each subsequent time the fan turns on you notice it less. Individuals with SPD often do not get the "all's fine" message from their brain, so they continue to process each stimulus (as if it were the first time they were exposed to it).

In contrast, a person with ADHD has a large initial response but does get used to new sensory stimuli. After a large response to a new sensation, the brain of a person with ADHD sends a message "no fear, this is safe." Then the person can disregard the sensory stimulus the next time he hears it.

This difference is crucial! Our data suggest that 40 percent who have ADHD also have SPD and vice versa; 30 percent have ADHD only and 30 percent have SPD only (Ahn et al. 2004).

Ways to Help a Child with SC

The following suggestions, adapted from Bialer and Miller (2011), will help organize Sensory Cravers:

Create organized movement experiences that are goaldirected and purposeful. A child who desires constant movement must be interrupted with functional tasks or else he is likely to become overaroused. For example, if running he could be guided to pick up an object, take it to the next station, drop the object, and then run back to the start.

Use intermittent, varying, or interrupted vestibular input.

Providing a spinning or swinging sensation to an individual with SC increases his arousal level and tends to disorganize the person. If the person likes to swing high, swing him only to a certain count (e.g., 5); then guide the person to pick up a stuffed animal and place it in a container. Then swing again to the specified count and pick up another object and place it in a different container. The child receives some of the input he is looking for (e.g., swinging), but it is paired with an organizing game or task.

Incorporate heavy work activities. Many individuals with SC benefit from "slow, heavy work." This includes tasks that involve sustained pushing, pulling, and carrying (e.g., taking out trash, vacuuming).

Use small spaces to control activity, especially when playing with friends. Help the child with SC learn personal boundaries when playing with peers. Provide a defined space and make a game out of being able to stop. Construct small spaces like tents or forts to help contain and organize the child with SC during an activity. Try to stay away from hectic environments, such as malls or carnivals, which will likely cause a child with SC to become overaroused.



Children who are sensory cravers often try to obtain so much input that they become overaroused. They often appear disorganized and are mislabeled with ADHD or another disorder. An occupational therapist who has been specifically mentored in treatment of children with SC can help coach caregivers in understanding the child's real needs for functional tasks and establish a sensory lifestyle that will best meet the needs of a child with SC. ■

References

Ahn, R. R., L. J. Miller, S. Milberger, and D. N. McIntosh. 2004. "Prevalence of Parents' Perceptions of Sensory Processing Disorders among Kindergarten Children." American Journal of Occupational Therapy 58 (3): 287-93.

Bialer, D. S., and L. J. Miller. 2011. No Longer A SECRET: Unique Common Sense Strategies for Children with Sensory or Motor Challenges. Arlington, Texas: Sensory World.

Miller, L. J., M. E. Anzalone, S. J. Lane, S. A. Cermak, and E. T. Osten. 2007. "Concept Evolution in Sensory Integration: A Proposed Nosology for Diagnosis." American Journal of Occupational Therapy 61 (2): 135-140.

Ognibene, T. "Distinguishing Sensory Modulation Dysfunction from Attention-Deficit Hyperactivity Disorder: Sensory Habituation and Response Inhibition Processes." PhD diss., University of Denver, Faculty of Social Services in fulfillment of Doctor of Philosophy Degree, 2002.