



## **Promoting Sensory Regulation in Autistic Visitors**

After reviewing this brief, you should be able to,

- Name the five basic senses
- Introduce the eight senses
- Define the power senses

Have you ever been in a room when a ceiling fan is quietly squeaking away? Most of us notice the noise, then turn our attention to other things, and even if the sound grates on our nerves, we can still function. How about when you come home to a house that smells like cooked cabbage, and you really don't like that smell? Again, most people register the smell, have a reaction to it, and then move on to other tasks at hand. While they may not like the cabbage stink, they are able to live with it.

Unfortunately, for some people - including many diagnosed as autistic - registering sensory input such as sounds and smells is not an easy process, and they may even need to leave the immediate area. If not, they may become agitated or anxious - and forget about getting anything else done. This is called sensory processing disorder, or SPD. Some research even estimates that sensory processing disorders or simpler sensory aversions may affect nearly one in twenty people. In general, children have a more difficult time managing their responses to sensory input. It seems that when it comes to sensory regulation, people outgrow their childhood difficulties, or in this case, figure out their own strategies for being able to coexist with sounds, smells, and other things that might have set off a screaming fit when they were younger.

The good news is that there are ways to help people with sensory processing disorders work around their challenges. Occupational therapy practitioners, also called OTs or OTPs, often work with people who face sensory processing challenges, such as in the case of many autistic people spectrum disorders, also known as ASD. Since we can't tell the world to be quiet or stop spinning, it's important to help autistic people navigate situations in order to manage responses and reactions to sensory input. Let's first look at what the eight sensory systems are, the many ways people process and react to them, and how we can help people with sensory processing disorders and aversions manage them when they become too much to handle.

When asked about how many senses there are, many people would report on the five basic senses of vision, hearing, taste, smell, and touch. While the first four systems have organs designed to act as receptors for senses – our eyes, ears, tongues, and noses – the touch system is much more complicated. By using skin as a receptor, the touch - or tactile system - is the largest in our body and has many types of receptors. In a nutshell, our different touch receptors let us know whether the touch is light (like the brush of a feather) or deep (like a bear hug). Deep touch is considered the most calming of touch receptors – think of the comfort of crawling under a bed piled with quilts or holding a baby close to your chest.

In addition to the five basic senses just detailed, there are three more senses that are less well known, but equally important. We have a vestibular system in our inner ears which provides our bodies with information about movement and our relationship to gravity. The proprioceptive system uses sensory receptors in joints, tendons, and muscles to help us be aware of the position of parts of our body without looking at them. The interoception system tells us things about how our body is feeling inside, whether we are thirsty, in pain, tired, or hungry. Interoception is often ignored - but can make a tremendous impact on our activity levels and feelings of well-being. Children are often more prone to misinterpreting the feeling their bodies send them, and autistic children have reportedly ignored pain, thirst, and tiredness. In a nutshell, vestibular sensations help us maintain our balance on uneven surfaces or moving structures.

Proprioception helps us be coordinated and use the right amount of force to pick up small or heavy objects. And interoception tells us when we need to tend to our bodily needs.

What do we do about the eight sensations? This is when things get interesting. Of these eight senses, three of them form what some people refer to as the power senses. Tactile, vestibular, and proprioceptive senses work together, and become integrated to provide a foundation for our behaviors and actions, such as being sensory defensive, having poor sensory modulation, poor sensory registration, or impaired sensory integration. All of these can lead to different behaviors or internal states that cause us to either check out on what is around us or to go into a fight or flight mode. In this state, our actions are so focused on managing our emotions that it is nearly impossible to attend to what is going on around us, much less enjoying it. The upshot of this information is that if community venues want to promote a calm and organized environment, they should evoke the power senses by providing visitors opportunities for soothing back and forth head movement and deep pressure touch. Think gliders and weighty blankets or places that offer a tight squeeze.

Now it's time to turn our attention to the strategies we can use to help people with sensory processing challenges enjoy their time in community events. The first strategy is to help a person optimize their behavioral state so they are able to make good adaptive responses to sensory input. In this case, the strategy is to make autistic people feel resilient and able to tolerate things that might otherwise bother them. Examples are to offer events when commuting is free of typical challenges. Some places refer to this as a relaxed opening time. Another is to offer a stress-free entrance and immediate orientation to the place. Small gestures such as curtains on entrance windows that dampen sound and minimize light can have a great impact. Directing visitors to the water fountain or offering little bottles of water can also be a pause that provides refreshment and reorganizing.

Creating sensory respites in the venue itself can be as simple as posting photos of headphones along a path or on a map with designated sensory hot spots. Knowing when

visitors are entering a “headphone zone” can help them gain a sense of control as they make decisions on whether suggested sensory remedies are needed. Additional supports can include offering “sensory slow” routes through a venue or “chill zones” when people need to collect themselves. Think of things like nursing mother rooms as an example – small but effective. A more concrete strategy is to offer either a portable or permanent sensory haven in which a few basic items offering tactile, vestibular, or proprioceptive input is possible. In general, keeping it simple will calm the appeal of the sensory haven. A quick visit to a sensory haven should be enough for people to recharge their batteries and soothe jangled nerves. After all, the goal is to be a part of the venue itself, not disappear into a sensory haven. Little cardboard houses, pop up tents, art boxes, garden gazebos, and ice fishing houses can all be used to achieve the goal of providing a haven.

Our sensory world is a rich and complex thing. Adjusting our needs for sensory regulation by supporting internal resilience and tolerance while alerting people to potential challenges and giving them the power to come up with their own solutions can make a great difference in a visitor’s staying power.