The Sensory—Behavior Connection

Lindsey Biel, OTR/L

"Regardless of which educational approach or approaches are taken, a person's unique sensory issues should never be ignored."

At a recent team meeting for a preteen with autism who is making excellent progress (let's call him Charlie), I marveled at all of the energetic, optimistic people in the room. In addition to Charlie's mom and dad, there were two ABA (Applied Behavior Analysis) therapists, a DIR/Floortime classroom teacher, a PROMPT-based speech language pathologist, a school-based physical therapist (PT), a sensory gym-based occupational therapist (OT), and me, an OT who works in children's homes, schools, playgrounds, bookstores, supermarkets, laundromats, zoos…wherever else a child needs help.

I believe the reason this group is so successful is that we all identify ourselves first and foremost as Charlie's team – a collaboration among parents and professionals with the single goal of helping Charlie be all he can be. It's not about ABA vs. DIR/Floortime vs. OT vs. PT and so on. Regardless of theoretical approach, we're there for Charlie.

There has been longstanding friction, sometimes veering all the way into full-out animosity between "sensory people" and "behaviorists." It's sad and counterproductive, because in more ways than we might imagine, the two are intertwined. And, just as one size never fits all, using just one methodology cannot possibly meet every need, especially with individuals on the autism spectrum.

With so many educational and therapeutic approaches now available for kids with autism or Asperger's, it may take some trial and error to create a workable, effective program for a particular child. Regardless of which educational approach or approaches are taken, a person's unique sensory issues should never be ignored. If a child is overwhelmed by the barrage of sensory information he is required to process, or if he is uncomfortable or in pain, he will be unable to reap the full benefit of even the very best teaching or therapeutic program.

Surely those "experts" who "don't believe in sensory issues," have not raised a child with autism and sensory problems. Or looked at the growing body of scientific literature that underscores the very real challenge of sensory processing issues, including:

A Geneva Centre for Autism study of autistic children and adults that found 80% were hypersensitive to touch; 87% hypersensitive to sound; 86% had vision problems, and 30% were hypersensitive to taste or smell.

A study by Drs. Stanley Greenspan and Serena Wieder found that an astonishing 94% of autistic people have sensory issues, of which 100% had auditory processing dysfunction; 100% had motor planning dysfunction; 36% had a mixed pattern of over- and under-sensitivity.

An ever-increasing body of research conducted by Dr. Lucy Jane Miller and her colleagues measuring nervous system arousal levels and sensory reactivity in children with autism and Asperger's Syndrome.

What is sensory processing anyway?

We all learn about the world and our place in it through our senses. We see things. We hear things. We feel things. We smell things. We taste things. We move through space. We have an internal awareness of our body. Throughout the day, we take hundreds and thousands of sensory messages, perceived from the environment and from within our bodies, link them together, give them emotional tags, generate some kind of behavioral response, and stash the information away in our brains for future use.

For most of us, this is a fairly automatic process. Consider a cherry lollipop. Most people perceive the sensory information accurately (red, round, hard, fruity, increasingly sticky and sweet), decide what to do about it (lick it, bite it, or throw it away if you don't like it), tag it accordingly (it's a lollipop, a treat, a good thing or it's a lollipop, a gross thing I'll avoid in the future), and combine it with other information (I'll lick my lollipop while I watch TV and keep my body still so I don't fall off the couch).

This process doesn't work so well for some people, especially those with ASD, the majority of whom have moderate to severe sensory problems. This can manifest in many different ways, including:

1. Difficulty with one or more sensory "channels." A person may be oversensitive (hypersensitive) or undersensitive (hyposensitive) to certain types of input, and demonstrate out-of-proportion behavior in response. Examples include being distressed by clothing fabrics, tags and seams, being unable to work under fluorescent lighting because its flicker can be seen and heard, getting dizzy easily with a change in head position, or having an unusually high or low pain threshold.

2. Difficulty combining sensory input. Some people with sensory problems are monochannel. Because of the way their bodies process information, they can focus on input from just one sensory organ at a time. So a person who struggles when trying to process sight and sound together may completely avoid eye contact in order to listen better.

3. Difficulty staying tuned in. When sensory stimulation is overwhelming, the person will likely either tune out or act up. Examples include retreating into self-absorption, using self-stimulatory behaviors to rev up or block out the environment, or having a tantrum or full-on meltdown.

We all have sensory preferences and intolerances. It's really a matter of degree. There's a big difference between being cranky because your sweater is kind of itchy and feeling like that sweater is coarse sandpaper rubbing against your skin. If you were to wear a sandpaper sweater, you too probably couldn't participate nicely in handwriting practice, and you too would probably lash out against a classmate who bumped into you on line because that innocent jostle might be the proverbial straw that broke the camel's back. If you treat the behavior, the underlying problem doesn't go away. With enough incentives, enough rewards, enough threats, you might be able to get the child to complete the handwriting assignment. You might be able to get that child to not scream and smack his classmate. But he'll still be wearing that hurtful sweater. Better to give him a more comfortable item of clothing while desensitizing his tactile (touch) receptors and have him enjoy his handwriting practice and the company of his peers.

Truly effective interventions for the problems experienced by people with ASD are never purely sensory and never purely behavioral. And sometimes there are no solutions, only understanding and compassion, and working out acceptable alternatives. Charlie, our preteen buddy, simply could not learn to tolerate the sound of the fire alarm, despite our best efforts to desensitize him, to give him earplugs, and earmuffs, to put padding over the loudspeakers, to rehearse his response. He would still freak out for hours. Now he is removed from the building before the alarm goes off. He has learned to not get upset in anticipation of the fire drill and exits and re-enters the building calmly and safely. For a kid who used to have hour-long meltdowns throughout the entire third week of each month (he knew by the end of the month there would be a fire drill), he's heading in the right direction.

This column will help you build your "sensory smarts" so you can more easily recognize when sensory issues are driving unwanted behaviors, and what you can do to help your child, your student, your client, or even yourself. We'll also look at how to incorporate sensory smart strategies to make homes, schools, and other environments more welcoming to people with sensory processing issues. ▪

Is there a behavior you find truly puzzling, or a sensory challenge you'd like help with? Email me! Lindsey@sensorysmarts.com

Need help figuring out your child's sensory profile? Log on to the Subscriber's Only section of the AADigest website to print out Lindsey's Sensory Checklist from her book, *Raising a Sensory Smart Child.* See page 6 for login information.