

Parent Training Plan

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## 1. Sensory/Motor Processing Disorders

### **Tactile**

The tactile sense is stimulated by outside input. There are two parts to the tactile sense: defensive and discriminative (Kranowitz, 2005). The defensive system alerts us to touch input that is potentially dangerous, such as touching an oven or even a mosquito alighting onto us. The discriminative system helps our brain distinguish touch input (Kranowitz, 2005)- the hard smoothness of a book cover, the softness of a blanket, etc. It also tells us if a touch is light deep, it tells us what we are touching, and it tells us how to distinguish the size, shape, weight, etc. of an item (Kranowitz, 2005). When the tactile sense misfires, it has four forms: Tactile overresponsivity, tactile underresponsivity, sensory craving, and sensory discrimination disorders (Kranowitz, 2005). Overresponsivity is characterized by an extreme negative reaction to things that normal, such as brushing hair or teeth. Underresponsivity is characterized by a lack of response to touch sensations, such as getting hurt. It may look as if the child does not know or care that he/she just cut his foot. Sensory craving may look like a child who needs to touch *everything* he sees, such as running his hands over rough surfaces, or walking on stones or hot sand barefoot. The fourth, sensory discrimination, can be seen in children who seem uncomfortable in their own bodies, and they may not know how to use their hands to learn new skills. Additionally, dyspraxia is a dysfunction of motor planning, and can be seen in children who possess poor hand-eye coordination, struggle in handwriting, are messy eaters (Kranowitz, 2005).

### **Vestibular**

The vestibular sense has to do with balance, and tells us if an object is stationary or moving, or if our bodies are moving or stationary (Kranowitz, 2005). Disorders of the vestibular sense can make a child overresponsive to stimulus, in which the child reacts negatively to input such as being cautious or reluctant to move or have a great fear of falling or react strongly to their feet leaving the ground. Underresponsivity is characterized by the unwillingness to move, or the ability to swing or spin for a lengthy amount of time without becoming dizzy (Kranowitz, 2005). A sensory craving child may have a need to move at all times, try risky maneuvers, or bang head/rock back and forth. A sensory “slumper” may have poor coordination, be unable to catch themselves when falling, or have difficulty using both hands/feet/limbs at the same time in a coordinated manner (Kranowitz, 2005).

### **Proprioceptive**

Proprioception tells us about our bodies and their position in space (Kranowitz, 2005). When a child has a sensory disorder, they may be overresponsive- picky about food, distressed when his body is moved without his knowledge. They may be underresponsive, and may often break toys unintentionally, or stand in a way that indicates poor muscle tone (Kranowitz, 2005). A child may be sensory craving if he crashes into people or things, likes to be tightly wrapped, or rub hands or items on things. If a child has poor discrimination or dyspraxia may trip and fall often, poor planning of movements, or have trouble using stairs (Kranowitz, 2005).

### **Visual**

We take in 80% of our information through our eyes (Kranowitz, 2005). When that system is disrupted, it can become overwhelming. Lights and bright colors, eye contact,

and moving objects may be overwhelming to a child who has trouble modulating visual sensations (Kranowitz, 2005). If a child has poor visual discrimination, they may have difficulty understanding spatial relationships (distance between objects), have difficulty participating in sports when they are required to know the position of other teammates, or be unable to form mental pictures of objects or the stories they hear (Kranowitz, 2005). Poor hand-eye coordination – such as is required for throwing and catching a ball- and having difficulty with rhythmic activities are signs of poor visual-motor skills (Kranowitz, 2005).

### **Auditory**

The auditory system works together with the vestibular system to process both sound and movement (Kranowitz, 2005). The auditory system is vital for emotional and social health, as well as hearing and balance. When this system is not working as it should, a child may have trouble modulating auditory sensations; this can be seen in how they become distressed by loud or sudden noises, high or low pitched sounds, or sounds like a toilet flushing that doesn't bother other children (Kranowitz, 2005). Poor auditory discrimination may be marked by having difficulty distinguishing certain sounds, like voices and vehicles coming down the street, having difficulty focusing on conversations, or difficulty in keeping a rhythm (Kranowitz, 2005). Children with auditory processing disorder may also have trouble with speech and articulation (having few tones in their voice or have difficulty speaking clearly).

### **Documentation and Professional Evaluation**

If you think your child may struggle in one or more of these areas, it is important that you begin documenting your sensory concerns early and considering further testing

by professionals. Having specific documentation will be helpful as you talk to doctors and therapists, and will give you confidence as you advocate for your child. There are several checklists available that could help indicate whether your child needs further testing or not. There are several, very detailed checklists in Kranowitz's *Out-of-Sync Child* (2005); she suggests making clean copies of the list to hand out to your child's teachers and other family members that know the child well, in order to gain several perspectives. The lists are specific, and should help you develop a vocabulary for what you see in your child. There are other tests online, such as the Star Institute's Symptoms Checklists (n.d.) which are broken down by age group.

Schools use a model for behavioral documentation which observes what preceded the challenging behavior (antecedent), what the behavior was (behavior), and what the child received or gained from that behavior (consequence) (ABC) (Boutot, 2017). The ABC principles can be applied to sensory documentation in this way. Example:

*Antecedent – Five people arrived for dinner at the house, lots of sights and sounds and smells arrived with them*

*Behavior - the child clapped hands together and stomped repeatedly, not able to focus on what was happening in his surroundings*

*Consequence – the clapping and stomping filled the need for proprioceptive input and the child seemed physically calmer afterward*

## **2. Activities to Support Development:**

### **Tactile**

- Rake up and play in a pile of leaves
- Put a few cups of dried beans in a clear plastic tote, with small toys hidden inside

- Invest in a sand box and a few simple toys, and add a bucket of water for additional sensory experience
- Make slime (1/4 cup white glue, 1 tbsp liquid laundry detergent, food coloring optional)
- Put several different types and shapes of uncooked pasta in a bin to work on tactile discrimination

### **Vestibular**

- Take a walk or a bike ride (Pillar Child Development, n.d.)
- Rock in a rocking chair or on a rocking horse (Pillar Child Development, n.d.)
- Going up and down an escalator at the mall
- Practice walking/balancing on a curb in your neighborhood
- Use a blanket and have your child roll and wrap themselves up then it, then gently pull the edge so they unroll

### **Proprioceptive**

- Wall push-ups/"pushing the wall" as hard as they can
- Crawl/crabwalk across the yard
- Carry a heavy load (Centre for Autism, 2018) (books, a box of things, laundry basket, etc.)
- Apply deep pressure, such as a hug
- Blow bubbles (Centre for Autism, 2018)

### **Visual**

- Read an iSpy book
- Print out optical illusions

- Play the dots and boxes game
- Open a bag of M&Ms and sort them by color before eating
- Play a round of memory match

### **Auditory**

- Sing a favorite song
- Learn a new nursery rhyme such as “Hickory Dickory Dock”
- Experiment with different instruments (recorder, harmonica, drums, maracas, etc.)
- Listen to books on tape or radio dramas
- Listen to music while talking about low and high sounds, fast and slow beats, etc.

## **3. Strategies to Address Challenges**

### **Tactile**

- Take note of things your child loves to touch, and give them opportunities to use their tactile sense (for example, your child may like digging in the dirt or sand and getting muddy – designate times when they are allowed and encouraged to do so)
- Take note of the tactile experiences your child becomes defensive about and see if you can break up the experience into smaller steps towards being more comfortable in that experience
- Allow and encourage a sensory craving child to explore with their sense of touch, as long as it is safe and appropriate

### **Vestibular**

- Take note of when your child seems to need constant movement and attempt to anticipate that need with a vestibular activity

- If your child struggles to organize movements and learn new physical skills- such as throwing a ball underhand- determine a simple set of instructions and use those same instructions every time you introduce the skill in order to create consistency
- If your child is a sensory craver, enrollment in gymnastics or martial arts may be highly beneficial (Kranowitz, 2005)

### **Proprioceptive**

- Children with proprioceptive needs may engage in less-than-healthy activities in order to fill the need for proprioceptive input – these things include self-stimulatory behavior like hand flapping, rocking, etc. Take note of what those behaviors are in your child and the situations in which they happen
- Children who crave proprioceptive input may have a constant need to chew (Kranowitz, 2005). There are sensory items that can be purchased called “chewies” that help direct this behavior more appropriately
- Child-gear “workouts” can be useful for children who seek proprioceptive input or tend to be lethargic

### **Visual**

- First, it is important to rule out a physical visual dysfunction, such as the need for glasses or other optical help (Kranowitz, 2005) before implementing sensory strategies
- If your child struggles with bright lights, it may be important to minimize the amount of time your child spends in fluorescent lights; there are also tinted glasses available to help filter out the intensity of the lights

- Vision therapy can be very beneficial in helping a child's eyes and body work together more efficiently (Kranowitz, 2005)

### **Auditory**

- A child who is defensive toward auditory stimulus may startle or meltdown at a sudden or loud sound; noise-canceling headphones can be beneficial in this case
- If your child struggles with receptive language, he or she may struggle with multi-step directions; speech therapy is often helpful for this issue
- Children who struggle with expressive language may have difficulty with reading skills, such as letter/sound identification or reading out loud; by reading to your child early and often, they will have a solid foundation as they learn and grow

## **4. Keeping Data**

As keeping data on your child's sensory disorder symptoms is beneficial for so many reasons, so keeping data on the application of sensory strategies and their results is important. One way to track this information is to keep a notebook or document on your computer specifically devoted to detailing when, where, and how you applied sensory strategies. Along with the ABC principles mentioned previously, added notes could be made about which sensory strategy was chosen and whether or not it was helpful in reducing sensory overload/promoting sensory awareness/building sensory tolerance. Be willing to try one activity several times in different settings, recording each change in your notebook and document. The more data you have, the more you will be able to track what makes your child healthier and happier.

### **5. Reflection**

The topic of sensory processing disorder is an expansive one, and I don't believe one document or one book could do it justice. I think it would be important for the parents to read, along with this document, other books and resources mentioned. I also believe it is important for parents to do their own research regarding this, and to look at the common language used when discussing sensory processing disorders. Most of the activities I chose to include are free or cost very little, but a few of the more in-depth strategies may cost more money or time. For instance, the various therapies suggested or equipment (noise-canceling headphones, chewies, etc.) are more expensive options. I would help parents research what insurance in their area can or can't do to help them out in this way, and refer them to other parents who are walking the same journey. For as Paul tells us, we must encourage one another and build one another up (1 Thessalonians 5:11, ESV).

## References

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