

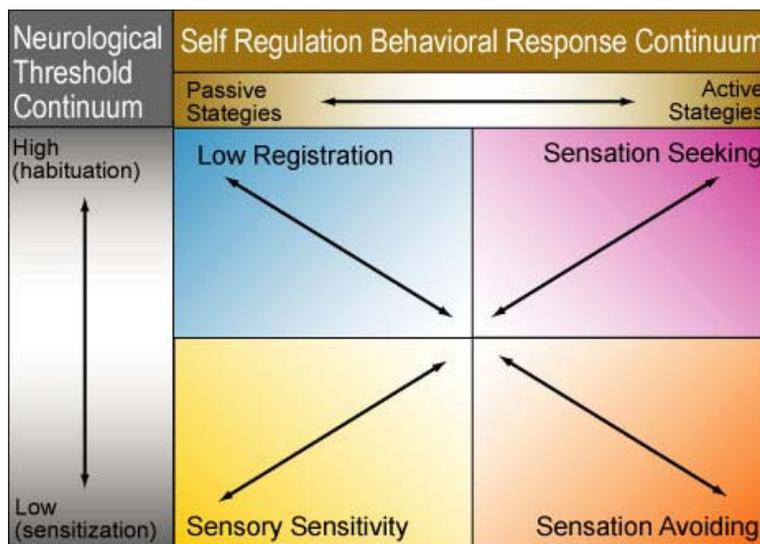
## Sensory Processing: Strategies to Increase Engagement #3

Attached are some basic strategies to support engagement and participation for children (or adults!) with different patterns of sensory processing problems. General strategies and some specific examples are provided, along with the goal of intervention for each pattern, to help you think about how to provide support for individual children you may know. But first...

Things we know about sensory processing:

- Sensory processing refers to the way in which our bodies notice, respond to and use sensory information. Sensory integration is the part of this in which sensory input from our bodies and the environment is put together and sorted out, and then used so that we can make an adaptive or appropriate response in any situation.
- Types of sensory input:
  - Visual
  - Auditory
  - Tactile (light touch and deep pressure touch, though these are processed differently from one another)
  - Vestibular (movement)
  - Proprioceptive (traction or compression of joints)
  - Gustatory (taste)
  - Olfactory (smell)
- The characteristics of sensory input that help determine whether we notice and/or respond to it include:
  - Frequency (how often does it occur?)
  - Durations (how long does it last?)
  - Intensity
  - Rhythm (associated with predictability...)
  - Complexity (are several types being presented at once? If so, what are the qualities of those different inputs?)
  - Novelty (is this familiar or not, and if not, how unfamiliar is it?)
- Outcomes of sensory processing are sensory modulation (ability of the nervous system to regulate levels of arousal or “alertness” in any given situation) and praxis (the ability to think up, plan, and execute new or unpracticed motor patterns)
- All of us have preferences in terms of the types and intensity of sensory input that we like, so to some extent any individual may, from time to time, demonstrate behaviors that reflect difficulty processing sensory information.
- It is only when this difficulty processing sensory information consistently interferes with participation and/or socialization in daily life activities that there is a need for true intervention.
- Often simple accommodations or slightly altered routines can alleviate much of the problem.

- Responses to sensory input at any given time are affected by a number of factors, such as temperament, fatigue, hunger, sickness, emotional state, what happened just before, anticipated events, etc.
- Individuals may demonstrate behaviors that fall in more than one of the following patterns of sensory processing problems, but typically the majority of behaviors fall in a single pattern. Recent research indicates that individuals with Asperger's Syndrome may be the exception to this, as they tend to be less consistent in their responses to sensory input in their environment.
- The items listed under "Notable Behaviors" for each pattern are not diagnostic criteria, so some children may demonstrate some of these behaviors for reasons other than sensory processing problems.



(Winnie Dunn, PhD, OTR/L: Model of Sensory Processing)

## POOR REGISTRATION

**Notable behaviors:** may seem uninterested, self-absorbed, unemotional, may not notice what is going on around them; may seem overly tired or apathetic

**Goal:** To have child notice and respond to relevant sensory cues in the environment

### Strategies:

- Enhance task and context features of daily routines (e.g., provide activities to increase intensity, frequency, or duration of sensory experiences)
- For example:
- Add stronger visual cues to activities such as bright contrasts or large scale art activities
- Add tactile stimuli during social or self-care routines (bear hugs to greet, lotion after handwashing, texture added to fingerpaints)
- Increase movement experiences
- Add strong smell or taste components to activities

## **SENSORY SEEKING**

**Notable behaviors:** may be very active, continuously doing something, excitable, may seem to take great pleasure in sensory experiences, and so try to create more of these for themselves

**Goal:** To select activities with more intense sensory experiences that are consistent with the child's sensory needs and still socially acceptable behaviors (so participation can occur with fewer interruptions from sensory seeking behavior)

### **Strategies:**

- Provide appropriate channels for needed activity and intensify sensory aspects of task and context, such as:
  - Alternate active and passive activities in schedule
  - Provide socially appropriate outlets for sensory needs, such as helping to run errands, collect art supplies; move chairs and desks, help clean tables, etc.

## **SENSITIVITY TO STIMULI**

**Notable behaviors:** Distractible, especially in busy or "complex" settings, may be a "complainer" as they tend to notice and comment on sensory events more than others

**Goal:** To structure sensory challenges to be predictable, to minimize chance the of unexpected stimuli, and to minimize generating aversion to typical activities

### **Strategies:**

- Provide controlled predictable patterns of sensory experiences in tasks and daily routines. For example:
  - Child could always be first or last in line
  - Toilet or diaper changing routines (and other self-care routines) always the same, with touch predictable
  - Minimize extraneous stimuli (noise, visual, lots of kids in one place, etc.) in environment, especially during tasks that are difficult for the child already
  - Provide separate or structured spaces that prevent the child from experiencing a lot of unpredictable touch (carpet square for each child at circle, etc.)

## **SENSATION AVOIDING**

**Notable behaviors:** may seem uncooperative, rule-bound, drive by ritual, don't like change, do like structure

**Goal:** To support continued engagement in activities while building coping strategies to use when faced with new sensory challenges (successful engagement in new sensory experiences enables the child to gradually build a broader range of appropriate routines)

### **Strategies:**

- Introduce new stimuli systematically into daily routines (honor child's need to have some control or limit input)
- Carefully construct events to introduce a wider range of sensory experiences (one thing at a time). For example:

- Allow child some control over washing face/brushing teeth
- Introduce new foods slowly and gradually and allow time to accommodate
- Provide slow predictable movement experiences
- Grade/adapt sensory toys and activities (playdoh in plastic bag to start)

### **COGNITIVE STRATEGIES (for all patterns)**

□ Cognitive and language skills can be used to mediate in potentially difficult environments or activities, using strategies such as:

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| <ul style="list-style-type: none"> <li>▪ Preparation</li> <li>▪ Contingency Plans</li> <li>▪ Talking through</li> </ul> | } | <p>Adapting the idea of social stories uses all of these potential strategies...</p> |
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### **Resources:**

Baltazar, A. & Bax, B.E. (2004). Writing social stories for the child with sensory integration dysfunction: An introductory resource and guide for therapists, teachers, and parents. *Sensory Integration Special Interest Section Quarterly*, 27, 1-3.

Dunn, W. (1997). The impact of sensory processing abilities on the daily lives of young children and their families: A conceptual model. *Infants and Young Children*, 9, 23-35.

Dunn, W. (2001). The sensations of everyday life: Empirical, theoretical, and pragmatic considerations, 2001 Eleanor Clark Slagle lecture. *American Journal of Occupational Therapy*, 55, 608-620.

Dunn, W., Saiter, J., & Rinner, L. (2002). Asperger syndrome and sensory processing: A conceptual model and guidance for intervention planning. *Focus on Autism and Other Developmental Disabilities*, 17 (3), 172-185.

Gray, C., & White, A.L. (2002). *My Social Stories Book*. Philadelphia: Jessica Kingsley Publishers

Polichino, J.E., Clark, G.F., Chandler, B. (2005). Meeting sensory needs at school: Supporting students in the natural environment. *OT Practice*, 10 (3), 11-15.