

# Sensory Processing

Strategies to facilitate your child's regulation in home  
and at school

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# Sensory Processing

- \* Sensory Processing refers to the method or manner in which sensation is detected and sent to the central nervous system to be interpreted.
- \* The inputs are processed and organized in the brain to produce useful body responses, perceptions, emotions, and thoughts in order for an individual to engage in their environment appropriately.
- \* When the process of sensory integration is not developed properly, the ability to process and respond appropriately to sensory input may be disrupted and difficulties in learning, behaviors, engagement with peers, and motor development may be present

# Where is the information coming from?

- \* Five Senses:

- \* Auditory (Hearing)
- \* Visual (Sight)
- \* Tactile (Touch)
- \* Olfactory (Smell)
- \* Oral Tactile/Gustatory (Taste)

++Plus 2 more “heavy hitters” not widely spoken about!

Vestibular (Movement, Posture, and Balance)

Proprioception (Body Awareness and Coordination)

# Application to School vs. Clinic

- \* The first and foremost responsibility of an OT in school is to help your child access their education!
- \* We do not treat or help to correct things that are NOT educationally relevant
- \* Clinic based services have a wider scope of practice
- \* Function vs. Perfection

# Disclaimer

- \* Sensory Processing Disorder is not a recognized DSM-V disorder
- \* Not qualifying diagnosis for school
- \* This is not meant to diagnose or treat your child in ANY way
- \* Comorbidities (co-existing conditions) can complicate situations
- \* Clinical observation by a professional is needed to determine underlying causes
- \* I may or may not be your child's therapist and these strategies do not take the place of consultation/treatment with an OT
- \* Information is only useful if we receive it- communication is key!

# Terms to Know

- \* Arousal: A child's level of alertness at any given moment. Too little arousal often has an inert affect on learners, whereas they will have more difficulty with tasks requiring strength and endurance. Too high of an arousal level decreases attention and cognitive learning ability.
- \* Self-Regulation: The ability to manage emotions and behavior in accordance with the demands of the situation
- \* Seeking: The degree to which a child *obtains* sensory input
- \* Avoiding: The degree to which a child is *bothered* by sensory input
- \* Sensitivity: The degree to which a child *detects* sensory input
- \* Registration: The degree to which a child *misses* sensory input
- \* Modulation: The ability to “tune in” important or “ignore” irrelevant stimuli to produce proper response

# Examples



# Auditory

- \* Information is gathered by hearing.
- \* Behaviors observed can include:
  - \* Covering ears
  - \* Becoming emotional/distressed in crowded or noisy places
  - \* Humming
  - \* Talking too loudly



# Strategies

- \* Headphones
- \* Cause and effect with noise
- \* Controlling the stimulus that is causing discomfort (i.e. blender, vacuum)
- \* Slow rhythmic music
- \* White noise machines with a steady beat or sound
- \* Be aware of background noise
- \* Be aware of fluctuating volume
- \* Give warnings when possible

# Visual

- \* Information gathered by sight
- \* Different from acuity (ability to see clearly)
- \* Observable behaviors:
  - \* Squinting or avoiding bright lights
  - \* Staring intensely at objects
  - \* Watching objects or people out of the corner of their eyes
  - \* Watching items spin or roll
  - \* Difficulty scanning their environment

# Strategies

- \* Change the lighting
- \* Wear lightly tinted glasses
- \* Create a barrier when reading or writing
- \* Reduce clutter
- \* Flashlight tag
- \* Balloon tennis
- \* I Spy
- \* Highlighting written work or lines on a page

# Tactile

- \* Information via touch
- \* First system to operate in utero
- \* Receptors all over our body respond to light touch, pressure, vibration, temperature, and pain
- \* Both protective (danger) and discriminative (quality) properties

# Strategies

- \* High fives throughout the day
- \* Engagement with various tactile mediums
- \* Theraputty or koosh balls
- \* Hand massage
- \* Wheelbarrow walking
- \* Deep pressure to back, hips, shoulders
- \* Weighted vest
- \* Fidget toys
- \* Defining a spot (example: carpet square)
- \* Front or back of line
- \* Use firm pressure when directing or touching the child

# Oral Tactile

- \* Information gathered by taste and/or in the mouth
- \* When therapists or professionals assess difficulty, we look for the 3 T's
  - \* Taste
  - \* Texture
  - \* Temperature

# Strategies

- \* NUK brush or smooth chew toy
- \* Jaw pressure techniques
- \* Massaging temporal mandibular joint
- \* Vibrating toothbrush
- \* Crunchy, chewy snacks

# Vestibular

- \* The vestibular is a sensory system that responds to changes in the position of an individual's head in relation to gravity and accelerated or decelerated movements. It influences a child's equilibrium, posture, balance, and muscle tone, directs eye gaze, and preserves a constant plane of vision.
- \* Over-reactive- fearful of change in head position
- \* Under-reactive can crave movement or seem unaware of gravity



# Strategies

- \* Trampoline
- \* Slow rocking or swaying
- \* Swinging can be alerting or calming
- \* Fidget toys
- \* T-stools
- \* Movement breaks in chair and desk or structured throughout the day
- \* Upside down

# Proprioception

- \* Proprioception is the internal awareness received from muscles, tendons, and joints that help to provide an individual with a sense of effort. Proprioceptive input informs the brain when and how muscles are contracting or stretching, as well as when and how the joints are bending, extending, or being pulled or compressed. The information sent to the brain allows an individual to unconsciously sense where their body is in space, how it is moving, and helps guide the execution of future motor tasks.

# Strategies

- \* Joint compressions
- \* Wheelbarrow walking
- \* Lap “snake” (weighted)
- \* Deep pressure massage
- \* Stretches
- \* Blanket wrap
- \* Neoprene vest
- \* Lycra/spandex clothing
- \* Hideout, fort, or quiet corner
- \* Weighted utensils