Sensory Processing and Children with Visual Impairment

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For Lighthouse Guild

What is Sensory Integration?

- It is the ability to organize the information that we get from our body and the environment around us and use it effectively to negotiate day to day activities.
Impact of Visual Impairment on Development

- Attachment with parents
- Environmental exploration
- Neck muscle stiffness
- Posture and Balance
- Gross motor development
- Visual-motor development
- Concept Formation

Strategies to Promote Development

- Support interactions with the environment
- Support exploration
- Promote muscle tone, balance and postural control
- Learning motor activities with tactile teaching
- Orientation to the environment
Sensory Processing Disorders

- Sensory Modulation disorder
- Sensory-based Motor disorder
- Sensory Discrimination Disorder

Sensory Modulation disorder
- Over responsivity
- Under responsivity
- Sensory Seeking

Sensory-based Motor Disorder
- Dyspraxia
- Postural Disorders

Sensory Discrimination Disorder
- Dyspraxia
- Postural Disorders
<table>
<thead>
<tr>
<th>Over-responsivity</th>
<th>Under-responsivity</th>
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</thead>
<tbody>
<tr>
<td>Refuses to touch anything, or pushes away however will seek deep pressure hugs,</td>
<td>Unaware of touch unless very intense</td>
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<tr>
<td>Does not like to get messy</td>
<td>Unaware of bruises, falls</td>
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<tr>
<td>Dislikes activities like painting, shaving cream, gluing</td>
<td>Will not cry when they fall or bump</td>
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<tr>
<td>Wears long sleeves in summer or refuses to wear a jacket in the winter</td>
<td>Indifferent to falls or bumps</td>
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<tr>
<td>Is reluctant to participate in new tasks</td>
<td>Has difficulty manipulating tools</td>
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<td>Will engage in solitary play</td>
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<th>Over-responsivity</th>
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<tr>
<td>Rationalizes verbally to get out of the activity, if language is present</td>
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<tr>
<td>Difficulty with circle time</td>
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<td>Meltdowns or tantrums for no apparent reason</td>
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<td>May appear distracted and inattentive</td>
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<tr>
<td>Dislikes playground activities</td>
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<tr>
<td>Holds on to rails while going up and down the stairs</td>
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<td>Uncomfortable in elevators</td>
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<tr>
<td>Demand continuous physical support</td>
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<tr>
<td>picky eater</td>
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<tr>
<td>React to loud noises or vacuum cleaners</td>
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</table>
**Under-responsivity**

- Messy dresser
- Appears clumsy
- Knocks things off and bumps into things
- Generally disorganized (due to lack of input to the muscles)
- Clumsy, awkward, uncoordinated movements

**Sensory Seeking**

- Touch walls, toys
- Mouthing
- Craves running, spinning, moves from one activity to another
- Constantly moving
- Shakes head intensely
- Craves intense jumping, fast spinning
- Doesn’t get dizzy
- Deliberately bumps into things

**Postural Control**

- Decreased body awareness
- Decreased movement, balance and posture

**Dyspraxia**

- Decreased motor planning and bilateral coordination
- Gross motor and fine motor skills
- Didn’t crawl as baby
- Delayed milestones
- Need to observe other kids several times before participating in activities
- Reluctant to participate in gross motor tasks
- Jumping with feet together
- No hand preference by age four to five
Sensory Discrimination

- Difficulty grading movement
- Holds too tight or too loose
- Breaks an object that requires simple manipulation
- Picks up with too little force - complains it's heavy
- Uncoordinated Movements
- Looks to others before responding
- Unable to pay attention, understand and remember instructions

Emotional Issues and Behavior

- Pushy and/or controlling
- Stubborn and/or rigid
- Emotionally insecure
- Poor Social skills
- Aggressiveness

Sensory Processing and Visual Impairment

- Role of sensations
- Effect of sensory processing issues

Addressing Sensory Processing Issues

- Acknowledge there is an issue
- Consult an Occupational Therapist
- Screen or evaluate
Addressing Sensory Processing Issues

- Each child will be different and respond differently to sensations
- Be sensitive to child’s reactions
- Understand sensory demands of activities

Strategies for Children with Over-responsivity

- Provide comfortable and secure environment to explore
- Give them feeling of control with predictable activity
- Encourage to participate
- Let them use a comfort toy
- Encourage them to express verbally and identify the triggers
- Use deep pressure activities
- Long handled brushes to play with messy tasks, like painting, glue, shaving cream, etc.
- Have a quiet corner

Sensory-based therapy

- Sensory integration therapy
- Sensory diets
- Weighted vests
- Special seat cushions
- Sensory boxes
- Fidget toys

Addressing Sensory Processing Issues

- Look for cues from a child for sensory preferences
- Provide opportunities for sensory play
- Provide safe and supportive environment
- Encourage and not force
Strategies for Children with Body awareness issues

- Keep environment safe
- Use physical structure such as pillows ribbons to define the place
- Use weighted toys or blanket to organize
- Weighted vest

Strategies for Sensory Seeking Children

- Look for cues from a child for sensory preferences
- Provide opportunities for sensory play
- Weighted vest
- Help the child identify their activity state and
- Help the child identify strategies that helps him or her organize
- Gum
- Chewy
- Timers

Resources

- The Spiral Foundation: www.thespiralfoundation.org/index.html
- Sensory Processing Disorder Foundation: www.spdnetwork.org
- SI Global Network:
  - http://www.siglobalnetwork.org

References