



Occupational Therapy

A focus on proactive use of sensory strategies



Created by:

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Hope Through Treatment

Overview

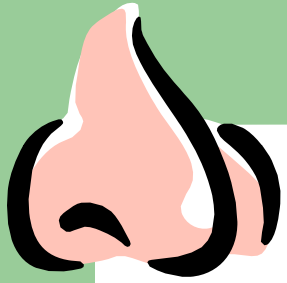
- Occupational Therapy
- Sensory systems
- Sensory integration
- Intervention
- Impact on daily functioning
- Sensory challenges
- Questions

Occupational Therapy

- A healthcare profession that considers a person's ability to function in daily activities
- The goal is to provide the skills needed to increase independence in all areas of life

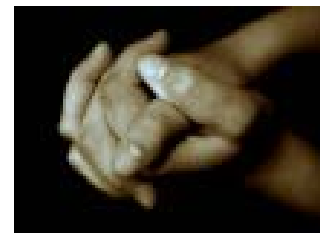
How does occupational therapy help a child with autism?

- Motor Skills (i.e., gross, fine, oral)
- Visual-perceptual/motor skills
- Sensory processing (i.e., level of alertness, over/under reactivity to sensory information)
- Daily living skills (e.g., dressing, eating, toileting)



Sensory Systems

- Tactile (touch)
- Visual system (sight)
- Auditory system (hearing)
- Olfactory system (smell)
- Gustatory system (taste)
- Vestibular (balance and movement)
- Proprioceptive (body position)



Sensory Integration

“the organization of sensory input for use.”

- Jean Ayres, Ph.D., OTR

- Sensory Processing (receptors) -> Modulation (brain interpretation) -> Response (behavioral/emotional outcome)
- Automatic response of the brain that occurs without effort
- The brain organizes input from all senses at the same time and guides us through our actions to respond appropriately
- The brain attains, maintains, and changes level of alertness to be appropriate for a task or situation (regulation)

Patterns of Sensory Processing

“No way of processing sensory information is inherently good or bad, it just is”

-Winnie Dunn

- We all have unique patterns of sensory processing
- When considered in context of sensory processing many “maladaptive” behaviors are in fact **ADAPTIVE!!**

Sensory Modulation Challenges

'We all have sensory preferences, yet kids with sensory modulation disorder have very strong sensory likes and dislikes and their reaction to sensory input departs from typically expected responses. (Diana Henry)



Optimal Arousal = "Just Right"

SENSORY UNDER-RESPONSIVITY

Does not respond to and seems apathetic or indifferent to sensory experiences.

SENSORY OVER-RESPONSIVITY

Responds to sensation from just one sensory system faster, with more intensity or for a longer duration than peers.

SENSORY SEEKING

Seems to have an insatiable desire for strong levels of sensation.

Sensory-based Motor Disorder

Postural Disorder:

Characterized by difficulty stabilizing the body while resting/moving and difficulty using both sides of the body together.

Dyspraxia:

Characterized by difficulty conceiving of, planning, organizing, and carrying out a sequence of novel or unfamiliar actions (movement).

Intervention

- Sensory processing patterns are reflections of who we are; these patterns are not a pathology that needs fixing (or can be fixed).
- Intervention respects a person's preferences and does not try to change them
 - Dunn, 2005
- Ability to live a satisfying life is the challenge to address

Intervention cont.

- Intervention is needed when fluctuations within an individual are extreme or when they tend to function at one extreme of the continuum or the other
- Intervention may occur if difficulties been observed in the following areas:
 - daily activities (e.g., eating a variety of foods)
 - skill development (e.g., complex motor actions)
 - level of alertness (e.g., too high or too low level of alertness)

Basic Principles of Intervention

- Need to be part of the natural context to support generalization (i.e., least intrusive as possible)
- Involve each person involved in the child's life (i.e., teacher, family, therapy staff)
- Provide appropriate ways to meet the child's sensory needs
- Be consistent!
- Be creative and meet the child at their level

Points to Consider When Using Sensory Strategies

- Response to sensory input varies from child to child
- Response varies within the same child from day to day or within the day
- Sensory strategies/diet need to be used proactively to maintain an optimal alertness level
- Monitor the child's level of alertness &/or response to sensory activities

Points to Consider When Using Sensory Strategies (cont'd)

- Let the novelty wear off
- Think outside the box- use variations of the same strategy
- Activities should be fun, engage the child
- As much as possible, activities should involve the child's choice

Under-responsivity: Sluggish kids

- ✓ My child seems weak, slouches, and leans on people or furniture.
- ✓ My child has low energy and has a hard time waking up.
- ✓ My child gets tired easily, lies around and appears to have little motivation to explore.
- ✓ My child does things too slowly.
- ✓ My child appears sad or disinterested.



Under-responsivity: Sluggish kids



TOOLS:

- Provide activities that engage the muscles and provide firm, maintained touch pressure to help with stability and motor control.
- Provide intense sensory input before or during challenging activities that require concentration.
- E.g., bouncing on the edge of the bed before getting up; playing on swings, exercise balls, inflatable mattresses; playing 'tug of war', mini trampoline, consider bright room colors/lights; chewy/crunchy snacks; mouth and hand fidgets.

Over-responsivity: Cautious Kids



- ✓ My child avoids swinging, sliding, climbing, riding toys, roughhousing, or walking on uneven surfaces.
- ✓ My child sits when going down the stairs.
- ✓ My child prefers to play quietly, do sit-down activities, or watch others play rather than 'join in.'

?? Kids with over-responsivity may perceive some movements as uncomfortable or even scary.

TOOLS:

- Start with predictable movement your child prefers and gradually expand on them as comfort levels increase.
- Piggyback rides (varying the speed, rate and direction); swings; blanket rides/swings; swinging; firm, maintained touch pressure (e.g., firm vest/clothing); hide and seek.

Sensory Seeking: Busy Bee Kids



- ✓ My child has trouble sticking to one specific task.
- ✓ My child is 'on the go' more than other children of the same age.
- ✓ My child takes movement risks that compromise his/her safety.

TOOLS:

Providing more movement in safe, functional, play activities helps 'get the wiggles out' for busy bee kids.

- Running; jumping; creating an 'impact pit' of pillows, blankets or bean bag chairs; carrying heavy objects; wheelbarrow/animal walking; sandwich game; bear hugs; vibrating massagers; minimize extraneous sounds.

Sensory Seeking: Touchy Kids



- ✓ My child does not like messy things or getting dirty.
- ✓ My child does not like to be touched, hugged or cuddled.
- ✓ My child touches objects and people to the point of irritating them.
- ✓ My child frequently put things in his/her mouth.

?? Sensory seeking kids appear to crave touch because they need sensation that is intense, frequent and/or of long duration.

TOOLS

- Encourage walking, rolling, running on a variety of surfaces (e.g., carpet, grass); smashing, pulling, and squeezing materials (e.g., play doh); firm maintained touch pressure massages using various materials; play with various textures (e.g., rice, beans, dough, sand, massagers, glitter glue); Mouth games (e.g., sucking pudding through a straw, blowing bubbles).



Over-responsivity: Sensitive Ears

- ✓ My child responds negatively or emotionally to loud people or places.
- ✓ My child has trouble concentrating in noisy environments
- ✓ My child frequently hums or makes other strange noises.

?? *Some kids who are overwhelmed by their environment over-react to sounds or even 'shut them out' so that it looks like they are not hearing, while other kids make noises to drown out the noises in their environment.*

TOOLS:

- Slow rhythmic rocking movement; squeezing hand fidget toys; weighted hats or vests; provide warnings before making noises (e.g., vacuuming); introduce loud noises as tolerated (e.g., playing with harmonicas, vibrating toys); allow your child to go to a designated 'quiet spot' as needed; Earplugs, ear muffs, noise cancelling headphones; place cut tennis balls on chair legs; chewing gum or chewy toys; provide a sports type water bottle to suck in a busy environment.



Dyspraxia: Fumbling Kids

- ✓ My child frequently trips, falls, bumps into things and drops toys.
- ✓ My child has trouble figuring out how to go on swings or slides, play with new toys, get dressed or make certain speech sounds.
- ✓ My child has difficulty imitating simple movements with his hands, arms, legs or mouth.

?? Children who have dyspraxia have difficulty figuring out what movement they need to make, planning how to move and executing this plan.

TOOLS:

- Break down tasks into smaller step, offer simple instructions and provide lots of opportunity for practice.
- Provide lots of opportunity to go over, in, out, on and off different surfaces starting with stable surfaces and progressing to moveable surfaces.
- Use large paintbrushes or rough terry cloth towels to rub your child's arms, hands, legs, feet, and back.
- Offer your child weighted spoons, forks and pencils.

Sensory Strategies: Hair Care



- ✓ My child screams and cries when he gets his hair washed, brushed, or cut.
- ?? *Some children may interpret the light touch of water on their head, a comb in their hair, or scissors near their neck as painful or dangerous.*
- ?? *Other children may be over-responsive to changes in head position (ie. afraid of tilting their head back during hair rinsing) while others may be sensory seeking (ie. difficulty sitting).*

TOOLS

- Use a doll and have your child brush, wash, and cut the doll's hair.
- Allow your sensory seeking child to run and jump and get the wiggles out before hair care. Use an inflatable cushion or deflated beach ball for sensory support while sitting.
- Use a spray bottle instead if your child is over-responsive to tilting his head for rinsing.
- Use a snug cap, sweatband, or headband 15 minutes before hair care to provide firm maintained pressure that can be calming for children with over-responsivity.
- Massage your child's head and give downward pressure on shoulders prior to hair care.
- Try washing your child's hair with a washcloth.
- Offer "fidget toys" during hair care.
- If your child is over-responsive to hair clippers, use headphones to block out the noise.
- Play slow rhythmic music during hair care.

Nail Nippers

- ✓ My child screams and cries when having his/her nails clipped
?? Some children may be over-responsive to nail clipping, perceiving the sensations as uncomfortable or painful.

TOOLS

- Massage hands, finger, feet, and toes before nail clipping
- Clip nails when they are wet and soft, versus dry and hard
- Clip child's nails while he/she is in high stool or chair.



Tubby Time



- ✓ My child screams and cries when he/she has to take a bath.
- ?? *Some children with postural disorders, dyspraxia, and other sensory discrimination disorders may be fearful as they do not feel secure sitting in a bathtub.*
- ?? *Some children may not like the feel of water.*
- ?? *Sensory seeking children may have a need for movement finding it difficult to sit in a confined bathtub.*

TOOLS

- Give firm, maintained touch pressure downward on shoulders during 'tubby time'
- Use a non-skid foam mat to feel secure in the bathtub
- Massage your child with a washcloth, bathmit, or your hands
- Get the "wiggles out" before bath time
- Offer 'fidget toys' e.g. bath toys, squeeze toys, etc.
- Offer a variety of containers for pouring different volumes of water
- Use calming scents or unscented soaps

Tooth Brush Tamers



- ✓ My child fusses or gags during tooth brushing.
 - ✓ My child refuses to participate in tooth brushing.
- ?? Touch systems around the head and face may contribute to over-responsivity to touch, leading to poor tolerance of anything around the mouth*

TOOLS

- Massage child's face prior to tooth brushing with maintained touch pressure
- Use textured puppets to 'kiss' your child around the mouth and face
- Massage child's gums with a towel or gum massager
- Soft bristles may be easier to handle than hard bristles
- Some children enjoy vibrating toothbrushes
- Allow your child to use a mirror for predictability

Dressing Delights



- ✓ My child fusses during diaper or clothing changes.
 - ✓ My child is very picky about what she wants to wear and/or does not want to wear clothes or shoes.
 - ✓ My child has difficulty helping with dressing/undressing.
- ?? Children with over-responsivity may find tags, seams, and clothing textures irritating.*
- ?? Children with dyspraxia may struggle with dressing as it requires coordination, balance, strength, and the ability to figure out what to do and how to do it.*

TOOLS

- Pre-wash new clothing to soften before wearing
- Look for cotton underwear with wide elastic bands
- Allow your child with dyspraxia to dress in front of a mirror
- If your child is distractible, keep window shades down until dressing is complete.
- Use different colored shoelaces or sticker on one shoe to begin teaching left and right.
- Try high vs. low top shoes.
- Offer firm maintained touch pressure or lotion massage prior to dressing as tolerated.
- Draw an 'x' on the back of clothing to help discriminate front and back.

Beddie Bye Bliss



- ✓ My child has trouble falling asleep and/or staying asleep
- ?? *Some children may have a sensory processing disorder where they may fall asleep but have difficulty staying asleep.*
- ?? *Some children may have difficulty with sleeping as they may have an interest in exploring their environment.*

TOOLS

- Children need a lot movement during the day, but at least one hour before bed time, switch gears to quiet play.
- Slow rhythmic movement, such as rocking or swinging in a blanket is calming.
- Give your child a warm bath before bed.
- Tightly tuck your child in sheets/blankets. Be sure your child is able to get out if he/she needs to.
- Offer heavy pillows and blankets for bed time
- Reduce visual clutter and busy walls
- A bed tent may help block out visual distractions
- Play soft, rhythmic music or white noise

Social Savvy



- ✓ My child has a hard time waiting.
 - ✓ My child finds it difficult to travel in cars and airplanes.
 - ✓ My child withdraws during play dates, on the playground, or in circle time.
- ?? *Different places and people bring about new sounds, sights, smells, movement, muscle, and touch experiences.*

TOOLS

- Have your child carry a heavy backpack or fanny pack (weighing no more than 15% of body weight) with his/her favorite fidgets, books, and snacks for a quick sensory break on the 'go.'
- Encourage your child to carry heavy boxes or bags while traveling.
- Let your 'sensory seeking' child run and jump as much as possible before sitting.
- Allow frequent movement breaks during outing (e.g. stop at rest stops during long car rides to play in the grass).
- Offer calming crafts/fine motor activities at busy parties (e.g. making things out of play-doh/clay).
- When on a plane, walk with your child up and down the aisle when ever the seat belt sign is "off."
- Your child may appreciate sitting on a bumpy therapy ball when working

Challenging Changes



- ✓ My child has a hard time switching to new activities or places.
- ✓ My child has trouble with changes in his routine or schedule
- ✓ My child has difficulty separating from me.

?? Children with dyspraxia may be slow at learning a new sequence of movement. They need to be given more time between transitions.

?? Children with over-responsivity may become anxious at changes to new situations.

?? Sensory seeking children may require organizational strategies to keep 'in-sync'

TOOLS

- Use a fun movement (e.g. bunny hop) to get from one place to another.
- Before making a change, provide slow, back and forth rhythmic movement (e.g. swinging in a sheet, hammock swing, etc.)
- Offer "hand fidgets" to hold during transitions
- Sing a familiar song as the switch in activity is occurring.
- Use a timer to suggest an activity is ending.
- Give plenty of warning!

References

Henry, D.A., Kane-Wineland, M., Swindeman, S. (2004). Tools for tots: Sensory strategies for toddlers and preschoolers. Henry Occupational Therapy Services.