



SENSORY PROCESSING DISORDER:
*UNDERSTANDING HOW SENSORY CHALLENGES
 IMPACT BEHAVIOR*






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**A LITTLE BIT ABOUT
 ANGIE...**




-  OCCUPATIONAL THERAPIST (OT) FOR 24 YEARS
-  RECEIVED MY DOCTORATE 1 YEAR AFTER MY MASTERS
-  1ST DOCTORATE OF OCCUPATIONAL THERAPY IN THE STATE OF ILLINOIS
-  SPECIALIZATION IN PEDIATRICS: SENSORY INTEGRATION
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WHY AM I HERE?


- TO (HOPEFULLY ☺) CHANGE YOUR PERSPECTIVES REGARDING SOME OF THE "BEHAVIORAL" CHALLENGES YOU ENCOUNTER
- TO EXPLAIN TO YOU WHERE A LOT OF THESE CHALLENGES MAY BE STEMMING FROM
- TO HELP YOU ALTER YOUR RESPONSES TO CHILDREN, GIVEN WHAT YOU LEARN HERE TODAY
- TO OFFER YOU A VARIETY OF STRATEGIES TO EXPLORE AND IMPLEMENT



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WHAT ARE YOU NOTICING??


- Can't sit still, like to move around noticeably more than other children
- Needs a lot of direction
- Needs a lot or repetition
- Requires a lot of attention
- Is very physical or lacks personal boundaries
- Is highly distractible



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WHAT ARE YOU NOTICING??


- Has a hard time making and keeping friends (being social)
- Does NOT like to listen
- Is very oral (puts things in mouth)
- Makes noises frequently and speak loudly (hard time controlling their vocal volume)
- These are the children who are frequently "causing problems" and getting in trouble



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OR MAYBE YOU ARE NOTICING THE OPPOSITE.....

- Can't really hear what they say
- They do not like to speak
- They watch their friends to see what they are doing before they complete any activity
- They seem to have little emotion and do not appear connected
- They have little energy and appear tired and weak
- They get messy and they do not notice it
- They have a hard time making friends
- These are the kids that do NOT cause problems, so they may slip through the cracks



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OUR 8 SENSORY SYSTEMS

- ❖ VISUAL (SIGHT)
- ❖ AUDITORY (HEARING)
- ❖ TACTILE (TOUCH)
- ❖ OLFACTORY (SMELL)

- ❖ ORAL (TASTE)
- ❖ PROPRIOCEPTIVE SYSTEM (BODY AWARENESS)
- ❖ VESTIBULAR SYSTEM (BALANCE)
- ❖ INTEROCEPTIVE SYSTEM (STATE OF OUR INTERNAL ORGANS... HUNGER, TOILETING, PAIN)

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WHAT IS SENSORY INTEGRATION?

- Sensory integration is the process by which we receive information through our senses, organize this information in our brains, integrate it, and use it to take part in everyday activities.

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WHAT IS SENSORY PROCESSING DISORDER (SPD)?

- It is a condition in which the brain has trouble receiving and responding to information that comes in through the senses.
- Formerly referred to as sensory integration dysfunction
- Dr. Jean Ayres (founded sensory integration theory in the 1960's) called **SPD** a "neurological traffic jam!"

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HOW CAN IT BE "SENSORY PROCESSING CHALLENGES IF NO 2 DAYS ARE EVER ALIKE?

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DO YOU KNOW ME?

- I cry and shield my eyes from the sun and other bright lights
- I have "selective hearing" or difficulty listening
- I am a picky eater; I avoid some foods and textures
- I complain about tags in my clothing
- I seem to be unaware of my own touch or pain; often touch others too soft or too hard
- I hate being tickled or scratched
- I have poor gross motor skills, such as running and riding a bike
- I always walk on my tiptoes
- I like having my hair washed, combed or cut
- I have trouble focusing and/or concentrating
- I am overly sensitive to food textures such as vitamins and binders
- I am always smelling clothes, food and objects
- I throw up everything
- I have poor fine motor skills, such as handwriting and cutting
- I have difficulty dressing myself
- I sit with my legs in a "W" position
- I put my socks on "back first" or instead I never go to bed

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SENSORY PROFILE

- We ALL have a sensory profile!
- Our profile is what makes us unique
- It dictates & help us understand how we interpret the world around us
- Creator of the "Sensory Profile" measures: **Winnie Dunn, Ph.D., OTR, FAOTA**
 - Infant version
 - Child version
 - Adolescent/Adult version
 - Teacher version
- Results of the Sensory Profile measures can fall into one of these 3 categories:
 - Typical performance
 - Probably difference
 - Definite difference

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AUDITORY PROCESSING SAMPLE

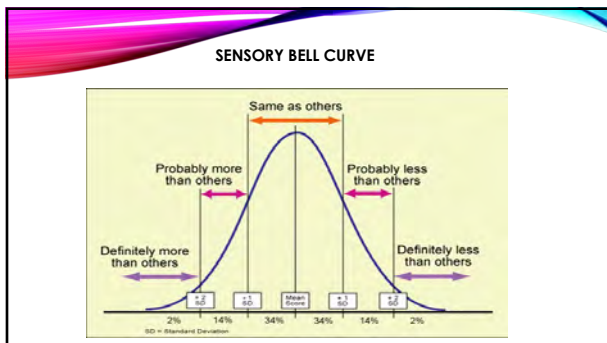
Skill Area	Quantity	ID	Description	Raw Score					
				5	4	3	2	1	
AUDITORY Processing									
My student...									
1	1	RD	misses verbal directions in class more than same-aged students.						
1	1	RD	tunes me out or seems to ignore me.						
3	1	RD	struggles to complete tasks in a noisy setting.						
0	1	SN	tells others to be quiet.						
3	1	AV	becomes distressed during assemblies, lunch, or other large gatherings.						
1	1	SN	reacts strongly to unexpected or loud noises (for example, fire alarm, books dropping to floor, doors slamming, announcements, bells).						
3	1	SN	has difficulty participating in group activities where there is a lot of talking.						
				AUDITORY Raw Score					
AUDITORY Processing Comments:									

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VISUAL PROCESSING SAMPLE

Skill Area	Quantity	ID	Description	Raw Score					
				5	4	3	2	1	
VISUAL Processing									
My student...									
1	1	RD	misses written or demonstrated directions more than same-aged students.						
1	1	RD	struggles to keep materials and supplies organized for use during the day.						
1	1	RD	leaves items blank on a busy worksheet, despite knowing the answers.						
2	1	SN	switches people as they move around the room.						
2	1	SN	looks away from tasks to notice all screens in the room.						
4	1	RD	misses eye contact with me during everyday interactions.						
2	1	SN	is attracted to TV or computer screens with fast-paced, brightly colored graphics.						
				VISUAL Raw Score					
VISUAL Processing Comments:									

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AUDITORY SYSTEM

HYPERSENSITIVE:

- o COVERS EARS/FEARFUL OF CERTAIN SOUNDS
- o HEARS THINGS BEFORE YOU DO
- o HEARS THINGS THAT OTHERS DON'T HEAR
- o TALKS LOUDLY
- o HIGHLY DISTRACTIBLE

HYPOSENSITIVE:

- o APPEARS TO NOT HEAR YOU
- o SEEMS OBLIVIOUS IN BUSY ENVIRONMENTS
- o FREQUENTLY MISS DIRECTIONS
- o FREQUENTLY HUMS/MAKES NOISES

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"IF A STUDENT PASSES THE HEARING TEST, IT MEANS HE SHOULD BE ABLE TO LISTEN AND FOLLOW RULES!"

FALSE!

- o JUST BECAUSE A CHILD CAN HEAR DOES NOT MEAN THEY CAN PROCESS THE LANGUAGE THEY HEAR
- o KIDS COMPENSATE FOR AUDITORY CHALLENGES BY RELYING ON OTHER SENSES LIKE VISION
- o TYPICAL AUDITORY CHALLENGES:
 - o DIFFICULTY NAVIGATING BACKGROUND AND FOREGROUND NOISE (AUDITORY OVERLOAD)
 - o CHALLENGES FOLLOWING MULTI-STEP DIRECTIVES

****MANY TIMES...IT'S NOT THAT THEY DON'T WANT TO LISTEN, IT'S THAT THEY CAN'T LISTEN!**

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VISUAL SYSTEM

HYPERSENSITIVE:

- o HATES BRIGHT LIGHTS
- o DIFFICULTY WITH PUZZLES
- o NOTICES THE LITTELST OF CHANGES
- o STARTLES AT UNEXPECTED MOVEMENTS
- o AVOIDS EYE CONTACT

HYPOSENSITIVE:

- o HARD TIME KEEPING SPACE ORGANIZED
- o MISSES VISUAL CUES
- o HARD TIME FINDING THINGS IN BUSY BACKGROUNDS

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"IF A CHILD HAS 20/20 VISION...SHE WILL NOT HAVE VISION PROBLEMS"

FALSE!

EYESIGHT = THE ABILITY TO SEE
VISION = THE ABILITY TO PROCESSES WHAT IS SEEN


IS YOUR STUDENT HAVING A HARD TIME WITH:

- TRACKING
- COPYING LETTERS/WORDS FROM AFAR
- LOSING HER PLACE WHEN READING OR WRITING
- SPACING DURING WRITING
- POOR DEPTH PERCEPTION (FALLS, STUMBLES FREQUENTLY)
- COMPLAINS OF FREQUENT HEADACHES
- STRUGGLES WITH HAND-EYE COORDINATION
- PREFERS TO LOOK OUT OF THE CORNER OF THEIR EYES OR TILT HEAD FREQUENTLY



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TACTILE SYSTEM



HYPERSENSITIVE:


- o AVOIDS GETTING MESSY
- o DISTRESS DURING GROUP WORK
- o FABRIC SENSITIVITIES
- o HARD TIME STANDING CLOSE TO OTHERS
- o REACTS AGGRESSIVELY TO TOUCH/EASILY UPSET BY INJURY

HYPOSENSITIVE:

- o DECREASED PAIN/TEMPERATURE AWARENESS
- o NEED TO TOUCH PEOPLE/THINGS
- o DOESN'T NOTICE WHEN HANDS/FACE ARE MESSY
- o GETS IN PEOPLES PERSONAL SPACE

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ORAL MOTOR SYSTEM



HYPERSENSITIVE:

- o GAGS EASILY
- o AVOIDS CERTAIN TASTES/SMELLS THAT ARE "TYPICAL KID FOODS"
- o LIMITED TEXTURES
- o PICKY EATER!

HYPOSENSITIVE:

- o CHEWS OR LICKS THINGS
- o PUTS EVERYTHING IN THEIR MOUTH
- o CRAVES CERTAIN FOODS
- o THUMB SUCKERS
- o HARD TIME LETTING GO OF BABY BOTTLES/PACIFIERS

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PROPRIOCEPTIVE SYSTEM: BODY AWARENESS

HYPERSENSITIVE:

- o VERY AWARE OF PEOPLE IN THEIR SPACE
- o USES LIGHT FORCE
- o AVOIDS COLLISIONS
- o AVOIDS ROUGH PLAY

HYPOSENSITIVE:

- o HARD TIME UNDERSTANDING PERSONAL SPACE
- o POOR BODY AWARENESS
- o TOE WALKERS
- o USES EXCESSIVE FORCE/PRESSURE
- o CONSTANTLY SEEKING PHYSICAL INPUT TO STAY REGULATED/ROUGH-HOUSING!
- o RUNS INTO THINGS & SPILLS DRINKS OFTEN

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VESTIBULAR SYSTEM: BALANCE

HYPERSENSITIVE:

- o MOTION SICKNESS
- o HATES TO BE UPSIDE-DOWN
- o AVOIDS SWINGS
- o DOESN'T LIKE WHEN FEET LEAVE THE GROUND
- o DOESN'T LIKE CLIMBING
- o POOR BALANCE/FALLS EASILY

HYPOSENSITIVE:

- o ALWAYS "ON THE GO" & CAN'T SIT STILL
- o "THRILL SEEKER": ROLLERCOASTER LOVER!
- o FREQUENT FIDGETING
- o SPINS FREQUENTLY
- o ROCKS UNINTENTIONALLY
- o SEEKS MOVEMENT ALL THROUGHOUT THE DAY

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Pyramid of learning

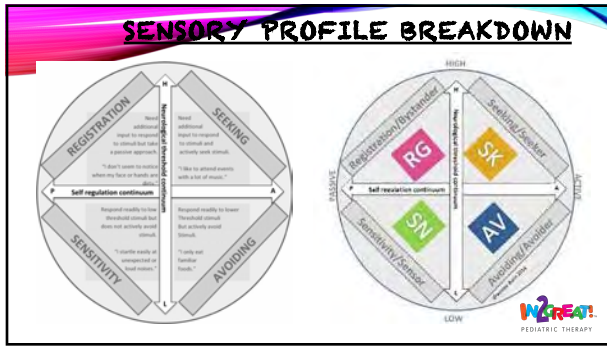
Sensory Pyramid

Updated version includes:

- Proprioception
- Tactile
- Vestibular
- Interception

Other levels in the pyramid include: Olfactory, Visual, Auditory, Gustatory, Postural Security, Awareness of 2 sides of Body, Motor Planning, Body Scheme, Reflex Maturation, Ability to Screen Input, Eye-Hand Coordination, Oculic Motor Control, Postural Adjustment, Auditory Language Skills, Visual Attention Perception Functions, Executive Function, Cognitive Intellect, Learning, Memory, Problem Solving, Planning, Organization, Self-Regulation, Social Interaction, Communication, and Self-Expression.

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IF THIS IS ALL SENSORY... THEN WHAT'S BEHAVIOR?

- Behavior is a form of communication
- It is an outward expression of our internal state
- By definition: behavior is a response to a stimulus....
 - The stimulus may not be evident, but there is ALWAYS a stimulus.
 - Is it sensory?
 - Is it manipulation?
 - Even manipulation has a purpose....what is your child trying to tell you?

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HOW DO WE MANAGE BEHAVIORS?

- Praising
- Natural consequences
- Sticker charts
- Rewards
- Punishments
- Shaming
- Behavioral Plans

W2REAT!
PEDIATRIC THERAPY

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SO WHAT DO I DO WITH THIS INFORMATION?

- Stop and think about the child's behavior before reacting
- Consider your OWN sensory profile and compare it to the child's
- Teach the child about his/her profile
- Help them improve their self-awareness
- Teach them how to advocate for themselves and their needs
- "Wonder" a lot!!
- Seek help if you feel your student's needs are excessive and are getting in the way of his/her day -o-day functioning.
- Talk to parents about additional supports that are available (i.e., sensory based occupational therapy).

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TRY THESE STRATEGIES!

- Limit amount of visual material
- Limit amount of auditory information
- Couple auditory and visual information
- Outline the daily schedule either for the class or for the individual
- Prepare for transitions (use a time timer or visual warnings)
- Give a direction and have them repeat it back to you
- Create a "quiet corner" where your student can go to re-organize
- Allow for hand fidgets, explain their purpose
- Movement breaks every 40 minutes (jump, spin, run in place, then push ups)
 - Start with vestibular activities (jump, spin, run...) end with heavy body work!
- Allow standing while others are sitting



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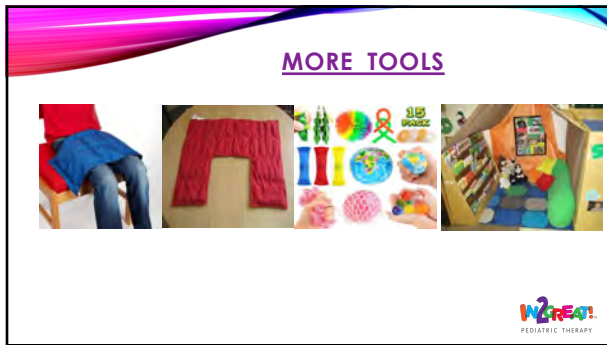
- Fidgety students should be "teacher's helpers"
- Mark where they are sitting in the floor (tape a square on the floor)
- Let them chew gum or suck on water bottles
- Let them be "door holder" if they need the input
- Let them be the "caboose" if they are tactile defensive
- TheraBand around chair legs or desk legs
- Velcro around pencils or inside of desk
- Chair push up
- Chair stacker (@ beginning or end of day)
- Break down instructions into smaller tasks (checklist format)
- Don't force a child to participate
- Lap or shoulder weight
- Be flexible



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THINK THIS.....NOT THAT....


- I would like to challenge you to think about your students in a different way.....
- Instead of thinking, "this child doesn't know how to behave!"
 - Think: "what is making this child behave so differently?"
 - Is he nervous about something?
 - Is it too loud/noisy?
 - Is there too much going on right now?
 - Does he know what he should be doing?



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THINK THIS.....NOT THAT....


- Instead of thinking, "This child can't sit still! He is distracting everyone around him!"
 - Think: "How can I provide this child with the support he needs so I can help him learn better?"
 - **PROACTIVE SENSORY** movement breaks vs. **REACTIVE** breaks
 - Make him/her the "counselor helper"
 - Gum
 - Standing desk
 - Fidgets
 - Dynamic seating options



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THINK THIS.....NOT THAT....


- Instead of thinking, "WHY do I have to tell this child the same thing over and over again?!"
 - Think: "I wonder why it is so hard for this child to listen and pay attention to me when I speak."
 - Have the child repeat back what you just said!
 - Checklists: Write "to do" lists on the board and have the child check things off the list
 - Set a visual timer to keep kids on task (so they know how much time remains)



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REMEMBER...

- **BEHAVIOR IS A FORM OF COMMUNICATION!** Children do not behave poorly just because. Children are not manipulative because they are stubborn. Even manipulation and stubbornness is a child's attempt to communicate something does not feel right.
- Our job is NOT to punish...our job is to try to understand.
- Our job is NOT to get frustrated...our job is to try to help them learn about themselves.
- Kids are like sponges...they absorb our energy...they can sense who cares for them and who struggles to.
- We need to support our students, encourage them and make them feel accepted... because the ones that are struggling are the ones that need us the most.



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PLEASE REACH OUT WITH ANY QUESTIONS!



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