Making Sense of Sensory Behaviour

Children with Disabilities Team
Occupational Therapy



social work ... putting people first

As Occupational Therapists we are interested in the way in which our ability to make sense of our bodies and environments has an impact on what we do in areas such as (play, school, life skills, relationships, self care tasks, learning).

Occupational Therapists are often asked to explore the sensory issues that can limit an individual's ability to interact with others, their environment and perform meaningful activities. Much of the time we give advice/raise about awareness of how sensory issues can help individuals engage. Any strategies given are taken on by they young person's main carer. This booklet has been designed so that this information can be shared allowing those who care for a young person with sensory issues to plan for their day.



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Understanding Sensory Issues

Our life is full of sensory experience. We all respond to sensory information. We touch, move, see, hear, taste and smell.

We are aware of or are subconsciously aware of where we are and how we interact with the environment. When we manage to interpret sensory information with ease, it impacts on our behaviour at a subconscious level. One example of this is switching off the alarm clock. When it goes off in the morning we reach out and switch it off, often without looking. Our brain knows exactly how much movement/force is required to reach out and press the off button. If we hit the wrong spot our fingers provide our brain with the information needed for further movement so we can then switch off the alarm - all without looking. SUCCESS!

- Sometimes we seek sensory information to make us feel better (e.g. a cuddle).
- Sometimes we retreat from sensory information if it makes us feel overwhelmed (e.g. very loud noises)

This booklet is designed to help us become more aware of the effects of sensory information and how it may impact on life skills and behaviour. By thinking and planning positive sensory experiences we can help understand how to best manage situations some young people find over/under-whelming. Avoiding a disliked or upsetting sensory experience may help the young person with the sensory issue calm down and be able to take part in daily tasks.

 It is important to recognise that difficulties interpreting sensory information can have an impact on how we feel, how we think and how we behave or respond.

We have constantly to make responses to sensory input from within our bodies (internal) and from the environment (external).

Internal Environment.

 Sitting for a prolonged period on an uncomfortable seat – 'the feeling' of being uncomfortable/unstable, the chair digging into legs, perhaps making us feel sore.

A typical Response:-

• Fidget to get into a more comfortable position or getting up from chair.

External Environment.

 Being in a busy classroom. Noise from other young people, chairs dragging on floor, people walking past classroom door.

A Typical Response:-

Difficulty concentrating on what teacher is saying. Tendency
to focus on one sensory input (e.g. watching people outside
the classroom) rather than filter out what we do not need to
pay attention to at that time.

If a young person has difficulties making sense of this information, their behaviour may not meet the demands of the environment.

If the sensory information is not processed smoothly, we might pay too much attention to the unnecessary sensory information or not enough attention to the necessary sensory information, to perform an activity, feel calm or pay attention. This can cause us problems. We may not be fully aware of what is happening, be distracted, uncomfortable, confused or perhaps easily upset because the information we are receiving is not clear enough for us to understand what is really happening. We also may enjoy certain experiences and a little planning to include these might just help us calm down e.g. when we relax in a bath we can then go on to have a relaxing evening.

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Reading the signs

Becoming a detective to identify if there is a pattern showing how sensory information is reacted to, may help you plan for any inappropriate reactions. This may allow you to provide strategies to help someone regulate the amount of sensory information they need, in order to respond as appropriately as they can.

Hearing

Highly sensitive	Low sensitivity
 noise levels feel magnified dislikes like loud noise is easily startled likes to 'chew' to damp down noises is anxious before expected noise (school bell) talks loudly. 	 enjoys really loud noise fails to pick up expected cues.

Vision

Overly sensitive vision	Not sensitive enough or under-sensitive vision
 dislikes bright lighting; prefers dark environment; is distracted by visual information. 	 takes more visual information to react; likes bright environment, reflective or spinning light.

Taste/Smel

Overly sensitive	Not sensitive enough or under-sensitive
 dislikes strong tastes likes only bland tastes tastes or smells objects, clothes etc smells people likes consistent temperature of food or really cold or really hot over-reacts to new smells gags easily. 	 eats non-food items has lots of hard, crunchy food in diet craves strong tastes under-reacts to strong, bad or good smell.

Touch

How we process touch has a huge impact on how we feel. The same sensation causes a different reaction depending on how we feel. An easy way of understanding this is to imagine the sensation of a fly landing on your arm you dismiss how it feels). Although the same sensation could be felt if a wasp lands on your arm you react to keep yourself safe. If a young person is constantly reacting to touch it can be difficult to focus on a task or activity.

Overly sensitive	Not sensitive enough or under-sensitive
 fussy avoids loves or hates hugs mouths objects only likes certain textures, clothes dislikes or really likes messy play can react aggressively to another's touch feels pain and is very sensitive to temperature. 	 takes firm touch to respond to stimulus is sometimes heavy handed over-grips objects is sometimes too close to others has difficulty responding to pain/temperature.

People know about the five senses but there are two other senses that help us make sense of all the information we receive. These are our sense of movement and body awareness.

Movement

Overly sensitive	Not sensitive enough
 hates spinning, jumping becomes dizzy easily or not at all hates a busy place full of movement avoids feet off ground (e.g. avoids swings.) 	 is always on the go has difficulty sitting still is constantly fidgeting/tapping runs rather than walks takes risks is fast but not always well co-ordinated

Body Awareness

Overly sensitive	Not sensitive enough
 does'nt like others being too close creates own boundaries, sometimes inappropriately e.g. young person may always need to go at the end of the school line removes self from crowds (e.g. crowded shops/busy queues). 	 bumps into or trips over things/people stands close to others puts self in too small spaces or pushes against corners of the room looks at feet when going down the stairs.

Advice/Strategies for Parents and Carers

Calming Strategies

When the young person is over-stimulated and feeling anxious these activities/strategies may help them feel calmer.

Quick fix

- Sitting under a big, heavy blanket.
- Hands on head and pressing down.
- Tucking legs up and squeezing.
- Deep pressure massage.
- Slow rocking e.g. rocking chair.
- Giving themselves a hug.
- Lavender scents.
- Squeezing and relaxing a small fidget toy.
- Squeezing and relaxing face and/or hands.
- Snuggling into a small space.
- Sucking a "sweet" sweet.
- Sucking yoghurt/thick milkshake through straw.
- Bear hug.

Longer lasting ideas

Long term routine calming activities may be part of the day.

- Walk after coming home from school (with backpack on).
- Press ups or chair press ups regularly through the day e.g. before school, lunch time, after school.
- Allow chill out time, prior to homework in a daily routine.
- Help with moving furniture e.g. pushing sofa relocating plant pots, hoovering.
- Help with heavy manual tasks in the garden e.g. digging.
- Swimming.
- Put on a heavy coat or heavy blanket over the shoulders as part of chill out time.
- Have a corner with favourite sensory activities to go to at any time.
- Squeeze/rock against gym ball.

2. Alerting Strategies

When the young person is not alert enough to pay attention to a task, these activities/strategies may help.

Quick fix

- Up/down movements, jogging/running, fast movement (for short periods only).
- Jumping, jumping jacks.
- Clapping activities.
- Making faces e.g. open mouth wide.
- Stamping on spot.
- Sucking sour sweet.
- Eating crunchy food.
- Drinking cold drinks

Longer lasting ideas

- Regular routine of jumping/chair push ups.
- Timetable the 'Quick Fix' that works into regular routine, immediately before the young person has to pay attention to a task.



Sensory strategies for personal care

DAILY CARE ACTIVITIES

Sensory sensitivity can lead to difficulties with young people being independent in daily life skills. The following strategies may help in personal tasks,



- Use comfortable clothes, consider type of fabric and length of sleeves.
- If the young person cannot tolerate labels, cut them out.
- If the young person cannot tolerate seams, undergarments can be worn to reduce friction.
- Try washing and drying clothes in unscented products.
- Dressing can be done in front of a mirror so as to provide visual cues to assist with sequencing, motor planning and body awareness.
- Be aware of other visual or auditory noises in the room which may be off-putting.
- Use non-perfumed soap.
- Be aware of bathroom lighting levels and minimise any noises, e.g. run the bath prior to entering the bathroom.
- Use pressure when shampooing or drying with a towel.
- Before bath time, do activities that provide deep touch input, e.g. rest your hands on your young person's shoulders and apply moderate pressure.
- Make the transition from undressing and getting into the bath as quick and smooth as possible.
- If the young person dislikes having his face or body washed, encourage him to wash himself. Self-initiated touch produces a less defensive reaction.
- Use a large sponge or loofah sponge. Rub firmly to decrease defensiveness.
- If the young person is showering, use a hand held shower nozzle. Let the young person control the direction and force of the water.

- Use a large towel, and quickly and firmly wrap the young person in it. Avoid exposure of the wet skin to the air as the light touch may trigger a defensive reaction.
- Provide deep-touch using a towel to the head, hands and feet to decrease defensiveness. If the young person will tolerate it, provide a firm massage, using lotion to avoid skin irritation.

General

Some non-sensory strategies can also help:

- Where the choice is available, allow your young person to choose a bath or a shower. A larger showerhead is often more acceptable to the young person, as it distributes the water more evenly.
- Try to incorporate bathing into a play activity. e.g. use floating toys and bubbles and/or coloured floating soap.
- Talk to your young person and explain every step, particularly when you are going to touch them with soap or a towel.
- Visual aids can be used in order to help your young person understand the activity.
- Consider adaptive equipment that may make the task easier, for example a grab rail may offer more support getting in/out the bath

Haircare

- Seat the young person firmly on your knee and squeeze the young person firmly between your knees (deep pressure).
- Place your hands on top of your young person's head and exert gentle but constant pressure down.
- Use a firm stroke or pressure as you comb or wash your young person's hair.
- Count or have the young person count as you comb, wash, rinse or cut the hair.
- Give definite time limits to the task e.g. let's count to 10, then we will stop cutting your hair, provide deep pressure immediately after. (see above)



- Break the task into small steps and eliminate any unnecessary steps or stages. Practise each step in isolation in a stress-free environment.
- Gradually combine these steps and perform the task in the natural environment. Practise without scissors, lifting up sections of hair and tugging very slightly to mimic the feel of cutting.

Toileting

The young person may be sensitive to toilet tissue, try using moist toilet roll.

Consider visual and auditory stimulation around and keep it to a minimum.

The young person may not like how the toilet seat feels. The young person may feel unsafe with their feet off the ground and sitting (consider small padded seat insert and stepping stool).



4. Calmer eating strategies

Many young people with sensory sensitivities have eating and drinking difficulties. Difficulties can be chewing or can present as behavioural issues e.g. biting, grinding teeth. Difficulties can range from very restricted or limited diet (due to taste or dislike of how it feels/habit) to mouthing objects (food and non-food). Some food or drinks make us feel calm, others make us more awake. Everybody is different but you and your young person will know what is relevant to you. Use this information to plan a calmer meal time. Introducing some of the activities prior to mealtimes may help your young person accept new foods or experiences. If your young person is drawn to one particular food type it may be he/she is doing so either to wake themselves up or calm themselves down. Using activities that stimulate the mouth can have an organising effect on the young person's behaviour as deep pressure through biting can help organise and calm. Using these ideas at the right time can help decrease biting and help the young person 'feel' where their mouth is so activities such as feeding or drinking are easier.

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DEEP PRESSURE TOUCH Mouth

Heavy pressure across the roof of the mouth is usually calming.

- Food (particularly chewy food).
- Allow the young person to use a baby toothbrush to provide deep touch pressure to the roof of the young person's mouth. Toothbrushes with a mouth guard, which prevent over insertion, are available from many baby shops and catalogues. Vibrating toothbrushes can be a good way to reduce sensitivity in the mouth, but make sure it is on the young person's terms and never forced.
- Food textures that encourage biting and crunching are also sometimes helpful and are worth trying.

EXPERIENCING TASTE AND TEXTURES

Food can be an easy way to give sensory and tactile experiences to the mouth. Cold food can be useful to 'wake up' your mouth before you eat something else.

Cold (to wake up)

- Ice poles.
- Fruit juice frozen in ice cubes.
- Frozen grapes.
- Frozen bananas,
- Frozen peas, carrots etc.
- Ice drinks.

Chewy (to organise/calm)

- Hard cheese or string cheese.
- Cereal bars.
- Dried fruit.
- Chewy sweets e.g. gummy bears, toffee bars.
- Chewing gum.
- Bagels.

Crunchy food (to alert)

- Raw vegetables.
- Fruit e.g. apples.
- Bread sticks.
- Crisps.
- Dry cereal.
- Nuts.
- Crackers.
- Popcorn.

Spicy food (to alert)

- Hot salsa.
- Cinnamon cereal.
- Curries.
- Chilli or Mexican food.

SUCKING AND BLOWING

Sucking and blowing during play can help 'work out' the muscles in the mouth and can give positive experiences involving the mouth (not connected to eating).

Sucking

- Using longer, curly, thinner straws or bundles of straws.
- Use a straw to drink yoghurt.
- Use a straw to drink fruit puree.
- Use a straw to drink fruit smoothies an easy one to grade the consistency.
- Sucking frozen fruit or ice cubes.
- Lollipops.
- Hard sweets.
- Water bottles with 'sports tops'.

Blowing

- Blowing bubbles using a straw in a cup/bowl.
- Blowing bubbles in drinks.
- Blowing bubbles.
- Musical instruments.
- With straw or mouth, blow football using cotton wool balls, paper or feathers.

Tugging, biting, pulling, teeth grinding

- Liquorice.
- Straws.
- Chewy toys designed to improve jaw strength (Chewy Tubes)
- Toffee bars.
- Water bottles with 'sports tops'



5. General calming strategies

Anxious behaviour with a sensory basis is like any other anxious, sensitive response. Here are some calming suggestions.

Routines

Make a list or organising a specific routine always helps to make us feel calmer. In particular after school or bed time routines will help to calm. Include one or two of the calming quick fixes in the routine.

Visual Supports

When the young person cannot hear what others are saying or cannot focus, a visual timetable or written list of what to do may help as a reference.

Environmental Checklist

Try to consider the young person's environment and what could be done to reduce possible trigger stressors and help positive experiences. Home, leisure activities, colleges, clubs etc, times alone and with others need to be investigated. Think about this carefully and it may make a positive difference. Be a detective to look at the environment in the light of sensitivities and preferences of young person.

Challenging Environments

The young person may be stimulated positively or negatively just by the environment around them. For all of us the light can be too bright, the room too noisy, the glare of the sun too dazzling, affecting how we feel.

Inside the home

Developing a routine and a consistent way of doing things is really helpful and can reduce the impact of over-reacting. Organisation can give the young person a sense of control over how they plan their day.

Sensory

- Provide a place where the young person can take themselves for time out, for example a small tent or cabin bed. Young people affected by sensory sensitivity often find dark and enclosed spaces calming.
- Avoid visual and auditory stimulation that is not necessary.
- If the young person has a positive response to movement try a rocking horse or chair swing.
- Paint the young person's room soft, pastel colours and put dark blinds or lined curtains on windows to prevent light distracting the young person.
- If possible, situate the young person's room in a guiet corner of your house.
- Give your young person "heavy" tasks around the house, for example carrying the shopping, arranging tins on shelves. This may have a calming and organising effect.

General

- Minimise clutter.
- Sharing a bedroom with a sibling can be difficult. Clear boundaries may be helpful as can a 'timetable' for time in the bedroom for each young person.
- Try to structure the young person's time and consider introducing an 'activity schedule' to reduce anxiety.

Outside the home

Playground equipment can be used at home and school or in the local park or leisure centre to provide an area where a young person can play and have time out. Accessing local facilities may be more suitable at less popular times to reduce noise levels and distractions. The following pieces of equipment can help the young person to have sensory experiences:-

- Swing, therapy balls, mini-trampoline or space hoppers for movement.
- Sand and water pits for tactile experiences.
- Play house or tent to provide a safe and calming area.
- Small sheds in the garden to give a less distracting environment.
- Soft play centres, ask staff when quietest time is.

Noisy, Busy Environments

- Whenever possible, consider additional planning for special events such as firework displays, birthday parties, football matches. Is there a quick exit route if the young person becomes stressed? Is there a special toy/routine/contact that can be used to calm the young person?
- Consider when to carry out everyday activities. Is there a quieter supermarket, off-peak time or on-line shopping? Is there a quiet space available e.g. dining booth?

- Consider wearing a backpack when in busy environment.
- Consider the wearing of snug clothing e.g. lycra undergarments.
- Consider the wearing of earplugs.
- Consider using a music player with headphones, allowing the young person to listen to favourite songs/music. This may help to drown out environmental noises and help the young person stay focused on an activity.
- Consider using a small toy to fidget with or distract from other sensory input.

Garden Creativity

The garden can provide positive experience to give a young person calming times, time alone or with friends, even just time to 'let off steam'. It can be planned to meet individual needs unique to the young person and their family.

Some of the following may be helpful to consider.

- Creating sensory areas - small, safe, hidden areas or use of garden sheds with suitable toys can create a calming experience.
- Large climbing frames, trampolines, chutes and swings may give the young person the
 - experiences of movement they need.
- The dislikes, likes, motivations and pleasures can be carefully reviewed to give a unique experience which a young person can have in their garden environment which is vital to family life and support at home.
- Night lighting, gazebos and sheds allow the experiences not to be curtailed by weather or the dark.
- Small water features can be extremely calming or give something to distract
 when things are difficult for a young person. Likewise, small wind chimes,
 musical chimes, light reflector toys or spinning toys may be both aesthetic and
 enjoyable.

The garden may be an area where, as a family, a shared experience with a young person can take place or it can simply be pleasurable for the rest of the family as a calm, quiet area.

When sensory information is challenging

To identify possible sensory impacts on behaviour we need to:

- Observe the behaviour.
- Look at the possible effects of the seven senses.
- Look at possible build up of different sensory information over time e.g. a full school day.
- Have a picture of individual's sensory preferences and sensitivities.
- Introduce sensory items or approaches that calm to help the situation.
- Modify your approach with your new understanding.

A table pinpointing behaviour and strategies may help:

Date/Time	Possible environmental factors	Sensory Experience before incident	Sensory calming idea
22/09 at 4.10pm	Busy room, noisy music	Home from school, long day	Time in room with quiet music; Snack time, chewy with food

Escalation time

Sometimes the stress of socially interacting e.g. school, may mean that suddenly when a young person returns home they lose control for a time. Reading the signs at an early stage could prevent escalation. Teaching the young person to look at the escalation in terms of a visual scale with strategies to reduce anxiety at this earlier time may be helpful. The young person may be more able to identify how they feel using a picture or number scale.

Examples:

If you can think in pictures -

Picture Feeling	What I do
© Calm	Feel positive and able to attend to tasks.
© Slightly anxious	Helps to play with fidget toy or Gameboy (likely if waiting in queue).
⊗ Very anxious and angry	Will tell mum and get out of situation for a few minutes.

If you think in numbers -

Picture Feeling	What I do
1 Calm	Feel positive and able to attend to tasks.
2 Slightly anxious	Play with fidget toy or Gameboy (likely if waiting in queue).
3 Quite anxious, feel hot and flustered	Ask for a drink of water to calm down.
4 Anxious, angry, very fidgety	Need to tell someone I need to get out for a few minutes. Go to quiet space and use a sensory strategy that helps.

Responses to touch can cause unwanted behaviour.

Possible Challenges

Sensory Challenges	Suggested Strategies
Young person withdraws or punches others who touch him lightly. Young person reacts negatively and emotionally when touched lightly (exhibits anxiety).	 Tell the young person when you are going to touch him/her. Always touch firmly. Assure the young person that you will touch firmly and that you will not move your hands unpredictably. Ensure others touch the young person firmly. Explain that the young person feels light touch more strongly and as if he/she were being hit. Approach the young person from within his/her visual field. Ensure friends and relatives show affection firmly and directly.
Young person may prefer firm touch. They may pull away when approached for a friendly pat or caress from a relative or friend.	 Tell the young person what you will do and how you will do it. ("I'm going to hug you really hard.") Respect the young person's need for control. Make kisses on the cheek a form of deep-touch input. Hold the young person firmly and give a deep, firm kiss.
Young person may reject touch altogether from anyone but his mother or primary carer.	 Ensure people always approach the young person from the front and always make sure the young person is able to anticipate the hug or expression of affection.
Self-stimulatory behaviours are often oral. e.g. hand-biting, spitting. This can deter other people from building relationships	 Provide as much explanation of the situation as possible. Use alternative oral stimulus e.g. chewing gum, crunchy foodstuffs, chewy tube, chewy toys. Use Calmer Eating Strategies (previous section).
Self-stimulating e.g. nipping, head banging.	Use longer lasting calming ideas.Use Quick Fix calming ideas (previous section).

Our hope is that by pulling together our understanding of sensory issues and strategies we believe to be useful. The information may be shared with carers looking for a different way to manage life with sensory-driven behaviours.

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