Why is occupational therapy important for children with ASD?

Children with autism and attention deficit hyperactivity disorder (ADHD) tend to exhibit significantly different patterns of sensory processing to their peers and to children with other special educational needs (SEN).

It is estimated that 60 to 70 per cent of children with autistic spectrum disorder (ASD) present with sensory modulation/processing disorder (Adamson, 2006). Studies have shown that people with autism are slower to integrate inputs coming in from their senses, making their processing speed much slower. This may go some way towards explaining why children with ASD are often subject to “meltdowns”. Children with autism lack the appropriate “filters” to screen out irrelevant information and this can cause meltdown as each input builds and builds without being filtered out appropriately. They may be still processing, for example, the earlier noise in the corridor at the same time as trying to deal with new inputs from the teacher and fellow students in the classroom. As one student said to me recently, “I cannot keep reading because my eyes are full up at the moment”.

Sensory overload can present itself in many ways, such as challenging behaviour, withdrawal and complete shutdown.

There are, though, a number of simple strategies that can be used in the home or classroom to effectively add the sensory filters that these students often require. Occupational therapists are key to this intervention. Adding the right filters and intervention to target each sensory system helps the child’s nervous system become more organised/regulated and therefore assists the child with attention and performance.

What is occupational therapy (OT)?

Occupational therapists work to promote, maintain, and develop the skills needed by students to be functional in a school setting and beyond. Active participation in life promotes:

- learning.
• self-esteem
• self-confidence
• independence
• social interaction.

Occupational therapists use a holistic approach in planning programmes. They take into account the physical, social, emotional, sensory and cognitive abilities and needs of students.

In the case of autism, an occupational therapist works to develop skills for handwriting, fine motor skills and daily living skills. However, the most essential role is also to assess and target the child’s sensory processing disorders. This is beneficial to remove barriers to learning and help the students become calmer and more focused.

Occupational therapists working with children who have a sensory processing disorder often have postgraduate training in sensory integration.

Sensory integration therapy is based on the assumption that the child is either “over stimulated” or “under stimulated” by the environment. Therefore, the aim of sensory integration therapy is to improve the ability of the brain to process sensory information so that the child will function better in his/her daily activities.

Children are often prescribed a sensory diet/lifestyle by the occupational therapist.

What is a sensory diet/lifestyle?

Most of us unconsciously learn to combine our senses (sight, sound, smell, touch, taste, balance, body in space), in order to make sense of our environment. Every child will have a unique set of sensory needs and these needs will alter depending on mood, environment and therapeutic intervention.

A sensory diet/lifestyle is a specifically designed daily activity plan. It aims to infuse sensory activities throughout the child’s waking day in order to improve focus, attention and ensure the child is feeling “just right” (regulated) throughout the day. Just as the body needs the correct food evenly spaced throughout the day, so does the body need activities to keep its arousal level optimal.

A sensory diet/lifestyle helps the child’s nervous system to feel better organised and therefore assists the child’s attention and performance. A qualified occupational therapist can use his or her advanced training and evaluation skills to develop an effective sensory diet for the student to implement throughout the course of the day.

What issues does a sensory diet/lifestyle aim to address?

The effects of a sensory diet can be immediate AND cumulative:
• they actually help to restructure a student’s nervous system over time so that he is better able to tolerate sensations and situations he finds challenging/distracting
• they assist the student to regulate their alertness and increase attention span
• they limit sensory seeking and sensory avoiding behaviours and handle transitions with less stress.

This allows the child to focus on the task in hand, rather than for example being distracted by stimuli such as, their shirt label rubbing on their neck or the smell of the hand cream, a noise outside and/or being bumped in the corridor.

A person with sensory processing disorder finds it difficult to process and act upon information received through the senses, which creates challenges in performing everyday tasks and can result in, for example, motor co-ordination difficulties, behavioural problems, anxiety, depression, school failure, etc. if appropriate treatment is not sought.

Sensory processing disorders can exist in the absence of an autism diagnosis.

**Sensory circuits**

Occupational therapists will often recommend starting the day with a sensory circuit: a sensory–motor activity programme which helps children achieve a “ready to learn” state. Sensory circuits are a series of activities designed specifically to wake up all the senses. They are a great way to energise or settle children into the day. Each session includes:

• alerting activities (e.g. spinning, bouncing on a gym ball, skipping, star jumps) to stimulate the body's central nervous system in preparation for learning
• organising activities (e.g. balancing on a wobble board, log rolling, juggling etc.) which demand brain and body to work together
• calming activities (heavy muscle work and deep pressure e.g. wall pushes, push ups, using weights) to give an awareness of their body in space and increases the ability to self-regulate sensory input.

Occupational therapy intervention is proven to impact on improving the communication, interaction skills and motor skills of some of the most complex and ‘hard-to-reach’ children. Children are more regulated following intervention which reduces anxiety and increases these children’s opportunities to thrive and achieve in the overwhelming environment in which we now live.

**10 Simple Strategies**

1. For the child who is overwhelmed by excessive noise, try offering them ear defenders or allow them to use an MP3 player whilst concentrating
2. For the child who becomes agitated by touch, allow them to stand at the front or back of the queue to avoid being bumped. Allow them to transition to the next lesson 3 minutes before others to avoid corridor collisions.
3. For the child who cannot sit still, include regular movement breaks, try alternative seating e.g. wobble cushion to allow fidgety movement.

4. For the child who seeks hugs try lycra undergarments, trial rash vests and rugby base layers that are cheaply available from many sports outlets.

5. For the child who struggles at the black print on a white background, change the paper to a buff colour and consider the font. This is less stressful on the eyes. Consider your presentation layout for PowerPoints too.

6. If a child is overwhelmed by smell, use a sweatband with a drop of oil, shampoo, aftershave etc. that they like. Allow the student to take this with them to mask the smell they find uncomfortable.

7. Food play should be encouraged for those children with a limited diet. There should be no pressure on the child and this should not be done at mealtimes. The aim is purely to reduce the fear of food.

8. The use of a quiet, calming room/space within the classrooms and at home are essential for calming. Use a pop up tent, blanket over a table or under a cabin bed. Add beanbags, sensory toys etc.

9. For children who want to chew offer alternatives like commercially available chew toys, crunchy bread sticks of carrot sticks.

10. For children who dislike having their teeth brushed, try a vibrating toothbrush, Collis Curve toothbrush (this cleans all surfaces in one movement) and use unflavoured toothpaste such as Oralnurse.

**Further information**

Occupational therapist Corinna Laurie is the author of *Sensory Strategies - Practical ways to help children and young people with autism learn and achieve*, published by the National Autistic Society.