

THE SENSORY ISSUE...



Sensory difficulties, sensory processing disorder, sensory regulation, or dysregulation - these are words often spoken in today's day. What is all this fuss about? In this issue, we are going to have a look at the human sensory system, how it works and the impact that it can have when one of its many facets are out of order or not functioning properly.

WHAT IS THE SENSORY SYSTEM AND HOW DOES IT WORK

The sensory system is the part of the nervous system that is responsible for receiving and processing information from the environment. It includes the five traditional senses: sight, hearing, taste, smell, and touch, as well as other senses such as proprioception (awareness of body position and movement) and vestibular sense (awareness of balance and spatial orientation).

Each of the traditional senses is associated with specific receptors that are located in different parts of the body. For example, the eyes contain receptors for sight, the ears contain receptors for hearing, the tongue contains receptors for taste, the nose contains receptors for smell, and the skin contains receptors for touch. These receptors collect information from the environment and send it to the brain where it is processed and interpreted.

The sensory system plays a crucial role in helping us to navigate and understand the world around us. It allows us to experience and respond to our environment, and it is essential for survival.

WHAT ABOUT WHEN IT DOES NOT WORK?

For some individuals, the sensory system may not function as it should, this is called Sensory Processing Disorder (SPD). Children with SPD may have difficulty processing, modulating or regulating and responding to sensory information, which can affect their behaviour, ability to learn, play, and the way they interact with others.

LET'S HAVE A LOOK AT THE COMPONENTS - SENSORY PROCESSING, MODULATION AND REGULATION

SENSORY MODULATION

SENSORY REGULATION

WHAT?!!

Sensory modulation refers to the process by which the brain adjusts the responsiveness of sensory receptors to incoming stimuli. This can include increasing or decreasing the sensitivity of receptors, filtering out irrelevant stimuli, and prioritizing important information.

Sensory modulation is important because it allows the brain to effectively process and respond to the vast amount of sensory information that it receives on a constant basis. Without sensory modulation, the brain would be overwhelmed by stimuli and unable to distinguish between important and irrelevant information. Sensory modulation also allows the brain to adjust to different environments and situations, such as bright lights or loud noises, and to react appropriately.

Sensory regulation, on the other hand, refers to the ability to process, integrate, and respond to sensory information in a way that is adaptive and appropriate to the situation. It involves the ability to effectively use sensory input to engage in activities and to adapt to changes in the environment. Sensory regulation encompasses a range of sensory processing abilities, including attention, perception, memory, and problem-solving.

Sensory regulation difficulties can present in a variety of ways, including over-responsivity (being easily overwhelmed by sensory input), under-responsivity (not responding to sensory input appropriately), and sensory seeking (actively seeking out sensory input).

Let's have a look at a couple of the Winnie the Pooh characters for a better understanding around sensory regulation difficulties:

SENSORY REGULATION EXPLAINED

LET'S TALK WINNIE THE POOH CHARACTERS!

Over-Responsivity: Piglet Piglet is easily startled and overwhelmed by sensory input, such as loud noises or sudden movements. He may withdraw or become anxious in response to new or unexpected stimuli, much like someone who experiences over-responsivity.



Under-Responsivity: Eeyore Eeyore may not respond to sensory input in the same way as others, such as not reacting to loud noises or bright lights. He may also appear to be lethargic or withdrawn at times, much like someone who experiences under-responsivity.

Sensory Seeking: Tigger Tigger loves to bounce and move around, seeking out sensory input such as movement and physical touch. He may also enjoy loud noises or other types of stimulation, much like someone who experiences sensory seeking.



It's important to note that sensory processing difficulties can manifest in different ways in different individuals, and that these Winnie the Pooh characters are just examples. Each individual is unique and may experience sensory regulation difficulties differently.

NOW HOW TO HELP:

OT - SENSORY INTEGRATION THERAPY

Sensory integration and its principles is based on the theory of sensory integration, which suggests that the brain can learn to process and organize sensory information from various sources and make appropriate responses.

During sensory integration therapy, the OT uses various activities and exercises to stimulate the different senses (e.g. touch, taste, smell, sight, and sound) and challenge the individual's ability to process this information. The therapy may involve activities such as swinging, climbing, bouncing on a therapy ball, and playing with different textures. You may also hear words like lap pads, weighted blankets, pen-top chews, sensory brushing etc.

Sensory integration therapy (or its principles) is often used to treat children with sensory processing disorder (SPD). It can also be helpful for individuals with other conditions such as autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), trauma and emotional well-being and developmental delays.

It is important to note that the effectiveness of sensory integration therapy by itself is still a subject of debate within the medical community, and there is currently limited scientific evidence to support its use. As with any therapy, it's important to consult with a qualified healthcare professional before pursuing this type of therapy as a treatment option.



AUDITORY PROCESSING DIFFICULTIES

and the audiologist

This is such an important component of sensory integration that is often missed and very misunderstood. Therefore- it gets its own page in this newsletter.

Auditory processing difficulties (APD) refer to a condition in which an individual has difficulty processing and interpreting auditory information, even though their hearing may be normal. This can lead to a range of symptoms such as difficulty following directions, understanding speech in noisy environments, and differentiating between similar sounds.

An audiologist is a healthcare professional who specializes in diagnosing and treating hearing disorders, including APD. Audiologists use a variety of tests to assess an individual's auditory processing abilities, such as speech-in-noise testing, auditory figure-ground testing, and dichotic listening testing.

Once a diagnosis of APD has been made, an audiologist can develop a treatment plan tailored to the individual's specific needs. Treatment for APD may include the use of assistive listening devices, such as FM systems or personal amplifiers, as well as speech and language therapy or auditory training exercises.

It's important to note that APD can be a complex condition, and there is no one-size-fits-all treatment approach. Working with an audiologist who specializes in APD can help to ensure that the individual receives a comprehensive evaluation and appropriate treatment.

**Don't wait for your little one to fall behind or worse-
receive the label of "doesn't listen!"
The audiologist is your go to with this!**

OTHER FUN TERMINOLOGY

Weighted blanket

The use of a weighted blanket is based on the theory that deep pressure stimulation can have a calming effect on the nervous system, particularly for individuals who have difficulties with sensory processing. The weight of the blanket provides a sense of comfort and security, which can help to reduce anxiety and promote relaxation. It is important to note that a weighted blanket should only be used under the guidance of a qualified healthcare professional, as it may not be suitable for everyone. It's also important to ensure that the weight of the blanket is appropriate for the individual's size and weight, as too much weight can be uncomfortable or even harmful.

Sensory Brushing

Sensory brushing, also known as the Wilbarger Protocol, is a type of sensory integration technique that involves using a soft-bristled brush. The purpose of sensory brushing is to provide deep pressure input to the skin and stimulate the nervous system, which can help to regulate sensory processing and reduce sensitivity to sensory input. Sensory brushing is often used in combination with other sensory integration techniques, such as joint compressions and sensory diet activities.

Therapy swing

A therapy swing is a type of sensory tool that is often used in sensory integration therapy. It is a suspended swing that provides a safe and controlled environment for individuals to engage in sensory exploration and movement. The use of a therapy swing is based on the theory that movement and vestibular input can have a positive effect on sensory processing, motor planning, and overall regulation of the nervous system.



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