

better when you're not there, this is a RED FLAG. It may be reasonable for a therapist to request a few sessions alone to bond with the child, but more than that just doesn't make sense, and the therapist needs to communicate fully with you so that you know exactly what's going on at all times. If a clinician tells you that she's not documenting any type of changes, be concerned – the only way to evaluate whether a treatment program is working is to analyse the changes your child is making. Also be wary of any therapist who says that he's working on the "parent-child bond," and that fixing your relationship with your child will improve her behaviour. In other words, if your therapists is excluding you, blaming you, or using techniques that do not have measurable outcomes, you should consider looking for another therapist.



A Sensory Diet

Just as your child needs food throughout the course of the day, meeting his need for sensory input within the context of his daily routines will enable him to cope with the demands, stresses and strains of the challenges in a variety of environments.

Each child has a unique set of sensory needs. Generally, a child whose nervous system is on "high trigger/too wired" needs more calming input, while the child who is more "sluggish/too tired" needs more arousing input. A qualified occupational therapist can use her advanced training and evaluation skills to develop a good sensory diet for your child—or you!—but it's up to you and your child to implement it throughout the course of the day.

The great news is that the effects of a sensory diet are usually immediate AND cumulative. Activities that perk up your child or calm him down are not only effective in the moment; they actually help to restructure your child's nervous system over time so that he is better able to:

- * tolerate sensations and situations he finds challenging
- * regulate his alertness and increase attention span
- * limit sensory seeking and sensory avoiding behaviours
- * handle transitions with less stress

The comprehensive book, *Raising a Sensory Smart Child*, which includes the Sensory Checklist, is geared toward finding sensory strategies that will help your child to cope.

Conclusions

A multidisciplinary model for early intervention for

young children with ASD needs to be developed, that can be replicated in all communities in South Africa. Sensory Integration is recognised as one of the key elements that Occupational therapy provides for young children with ASD. It has the capacity to provide answers to the questions of best practice, not merely cost effectiveness or ease of implementation, and has the capacity to change the developmental trajectory of these children (Bass-Haugen, 2009). OT-SI requires simple inexpensive equipment. The principles can be taught to parents, teachers, caregivers, facilitators, foster-home support staff, community workers, OT, ST, Psychology undergraduates and those doing their community service. They can make an enormous difference to the lives of the ever increasing number of vulnerable children in our society.

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Sensory Integration in Autistic Spectrum Disorders "Written by Kerry Wallace. BSc.OT (UCT) MSc.OT (WITS), SI Cert., NDT Cert. Therapeutic Listening"

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Introduction

Parents with newly diagnosed young children with Autistic Spectrum Disorders are stressed not only in having to deal with behaviour that is difficult to understand, but are also faced with a multitude of wide-ranging treatment options. Multidisciplinary, early therapeutic intervention by occupational and speech and language therapists is regarded by experts as the cornerstone of treatment (Schaaf & Mulrooney, 2007), and results in substantially better outcomes for the individual's integration into the society (Myers & Johnson, 2007).

The aim of this booklet is to enable parents, carers and professionals to understand what sensory integration dysfunction means; of the benefits of using a sensory integration framework in understanding their child's behaviour; the basis of Occupational Therapy – Sensory Integration therapy (OT-SI), and tips that other parents have been found useful in providing sensory strategies to deal with difficult behaviour.

The typical occupations of children of pre-school age, which include play, activities of daily living (sleeping, feeding, toilet training, dressing) and peer interaction, that depend on sensorimotor foundations are affected in ASD. In children with ASD, individual differences in sensory processing result in limited exploration of their environments that affect the establishment of connections in the brain which in turn influence learning and social interaction. Sensory integration is probably the most complex aspect of autism to understand, but it is arguably the most critical, and will be one of the defining criteria in the diagnosis of ASD, to be published in the DSM V in 2013.

What does Sensory Integration Dysfunction mean?

Many children with autism experience unusual responses to sensory stimuli, or input. These responses are due to difficulty in processing and integrating sensory information. Vision, hearing, touch, smell, taste, the sense of movement (vestibular system) and the sense of position (proprioception) can all be affected.

This means that while information is sensed normally, it may be perceived differently. Sometimes stimuli that seem "normal" to others can be experienced as painful, unpleasant or confusing by the child with Sensory Integration Dysfunction (SID), the clinical term for this characteristic. SID can involve hypersensitivity, also known as sensory defensiveness, or hyposensitivity. An example of hypersensitivity would be an inability to tolerate wearing clothing, being touched, or being in a room with normal lighting. Hyposensitivity might be apparent in a child's increased tolerance for pain or a constant need for sensory stimulation. Treatment for Sensory Integration Dysfunction is usually addressed with occupational therapy and/or sensory integration therapy (Biel & Peske, 2009).



How does it feel?

"So what happens when sensory perceptions are disorganised?". It means that the ordinary sights, sounds, smells, tastes and touches of everyday that you may not even notice can be painful.



The very environment in which we live often seems hostile. I may appear withdrawn or belligerent to you but I am really just trying to defend myself. Here is why a "simple" trip to the shop may be hell for me:

My hearing may be hyper-acute. Dozens of people are talking at once...The loudspeaker booms today's special.... Music whines from the sound system. Cash registers beep and cough, a coffee grinder is chugging...The meat cutter screeches, babies wail, carts creak, the fluorescent lighting hums. My brain can't filter all the input and I'm in overload!

My sense of smell may be highly sensitive. The fish isn't quite fresh, the man standing next to us hasn't showered today...the deli is handing out sausage samples, the baby in line ahead of us has a dirty nappy... they're mopping up pickles on aisle 3 with ammonia...I can't sort it all out. I am dangerously nauseated.

Because I am visually oriented, this may be my first sense to become over-stimulated. The fluorescent light is not only too bright, it buzzes and hums. The room seems to pulsate and it hurts my eyes. The pulsating light bounces off everything and distorts what I am seeing -- the space seems to be constantly changing. There's glare from windows, too many items for me to be able to focus (I may compensate with "tunnel vision"), moving fans on the ceiling, so many bodies in constant motion.

All this affects my vestibular and proprioceptive senses, and now I can't even tell where my body is in space.

How to choose the appropriate combination of therapies?

The wide variation in presentation of the disorder and ever changing needs of the child with ASD make it challenging for parents to make informed decisions making therapy choices over the child's lifespan. Autism remains a complex disorder that impacts each child differently. However, many children with autism have made remarkable breakthrough with the right combination of therapies and interventions. Most

parents would welcome a cure for their child, or a therapy that would alleviate all of the symptoms and challenges that make life difficult for them. Just as your child's challenges can't be summed up in one word, they can't be remedied with one therapy. Each challenge must be addressed with an appropriate therapy. No single therapy works for every child. What works for one child may not work for another. What works for one child for a period of time may stop working. Some therapies are supported by research showing their efficacy, while others are not. The skill, experience, and style of the therapist are critical to the effectiveness of the intervention. Therapies are not always delivered in a "pure format." Some intervention providers who work primarily in one format may use successful techniques from another format.

Occupational Therapy (OT)

Occupational Therapy is provided by qualified OT's and focuses on cognitive, sensory and motor skills. The aim of OT is to enable the individual to gain independence and participate more fully in life. For a child with autism, the focus may be on appropriate play, learning, and basic life skills. An occupational therapist will evaluate the child's development as well as the psychological, social and environmental factors that may be involved. The therapist will then prepare strategies and tactics for learning key tasks to practice at home, in school, and other settings. Occupational therapy is usually delivered in 30 minute to one hour sessions with the frequency determined by the needs of the child. Goals of an OT program might include independent dressing, feeding, grooming, and use of the toilet, as well as improved social, fine motor and visual perceptual skills.



Sensory Integration (SI)

Occupational Therapists who have completed post-graduate training under a registered training body like SAISI in South Africa, or completed a postgraduate programme at a University which includes Theory, Testing, Interpretation and Treatment can provide Sensory Integration Therapy. However caregivers and educators in daily contact with children with sensory processing disorders need to be part of the therapeutic team, so that SI principles can be applied across all environments where children live, learn and play. They assist the therapist to identify disruptions in the way the individual's brain processes movement, touch, smell, sight and sound, and help him process these senses in a more productive way.

Occupational Therapy using a Sensory Integration frame of reference (OT-SI) concentrates on the sensory information processing and the resultant effect on functioning in all areas. OT- SI does not teach skills, but rather enhances sensory processing abilities, facilitating generalisation so the child is more able to acquire higher-level skills. Sensory Integration principles are useful in teaching caregivers how to read their child's signals so, might be used to help calm your child, or to help with transitions between activities.

Therapists begin with an individual evaluation to determine your child's sensory preferences; under and over sensitivities, and motor planning abilities or weaknesses. The therapist then plans an individualized program for the child, matching sensory stimulation with physical movement, to improve the way the brain processes and organizes sensory information, and facilitating adaptive responses. OT-SI therapy often includes equipment such as swings, trampolines and slides.

OT-SI deals with lifestyle change and occupational performance issues early in life. OT-SI has the capacity to change the developmental trajectory of individuals with ASD. This approach is more cost effective than funding intervention, welfare support or incarceration of people with disturbed or disrupted lives later (Parham, 2002).

How could Sensory Integration Therapy assist my child?

The outcomes of occupational therapy can be assessed in the improvement in the child and family's quality of life. Providing rich sensory opportunities in a playful context, with the "just right challenge", which facilitates "adaptive responses" (Ayres, 1972) and changes in brain functions and behaviour, has been identified as a basis for therapy with these children. (Parham, 2002).

Some children with ASD compensate for low sensory thresholds by having a narrow band (familiar predictable environment and people interaction) in which they cope and narrow interests on which they over-focus. Pre-occupation with parts of objects and perseveration are common. High fidelity visual memory and idiosyncratic language result from a tendency to over focus on visual and auditory stimuli.

By reducing movement and tactile sensitivity, children



are able to engage better with people and objects in their environment. Children who had OT-SI demonstrated reduced tactile, taste-smell, visual-auditory and movement sensitivity, and improved auditory filtering. Improved intersensory integration results in an increased ability to regulate emotions and sleep-wake cycles (Wallace, 2010). Increased tactile discrimination results in increased interoceptive awareness and readiness for toilet training (Wallace, 2010).

Repetitive stereotypical and apparently aimless behaviours related to sensory seeking can be reduced by OT-SI, which helped children to get more intense feedback into their muscles and joints through appropriate activities. Children whose needs for movement/proprioceptive and tactile input are met, demonstrate less sensory seeking behaviour and are thus better able to filter information from their distal visual and auditory senses. Teachers find that they concentrate better and become noticeably more confident in the playground, enjoying swinging, climbing and riding scooters and tricycles.

Early Intervention - How early is early enough? As soon as a parent is concerned about their child's development or behaviour, expert opinion from a qualified mental health professional is advisable. Fussy babies are at risk for developing a range of emotional and developmental disorders in the preschool years. Therapy that changes the way the brain processes information sets the stage for generalisation and thinking based learning, essential to optimise higher level brain development. Although there are windows of opportunity for learning certain tasks and it is never too late to start, but the earlier the better in addressing developmental challenges results in optimum results.

Parental Involvement

Management of the condition should focus not only on the child, but also on the family (Myers & Johnson, 2007). Family-centred intervention, as opposed to purely child-centred treatment, thus focuses on addressing the child's emotional dysregulation and challenging behaviour, since it affects the entire family's quality of life (Cohn, Miller & Tickle-Degnan, 2000). It is essential that parents are actively involved in the intervention and when programs are coordinated. Find programs that encourage you to be involved -- you should be learning all the procedures and coordinating your child's program across every environment. You can't do that if you're being shut out. If a therapist tells you that you can't watch the sessions or that your child does

