

# INEFFECTIVE PRACTICE

# SENSORY INTEGRATION THERAPY

**MYTH:** children with autism will benefit from Sensory Integration Therapy

Proponents of Sensory Integration Therapy (SIT) (refs. 1-3) argue that sensory processing differences in people with autism underpin challenging behaviours and learning difficulties. They claim that providing additional sensory experiences increases the ability of the central nervous system to process and integrate sensory information. This may be appealing, as sensory processing is a key challenge for many students with autism. However, sensory processing has not been found to change in response to interventions, and thus there is no plausible mechanisms for how sensory integration therapy could have any effect on learning or behaviour difficulties for students with autism.

SIT, also referred to as the sensory intervention package, includes but is not limited to:

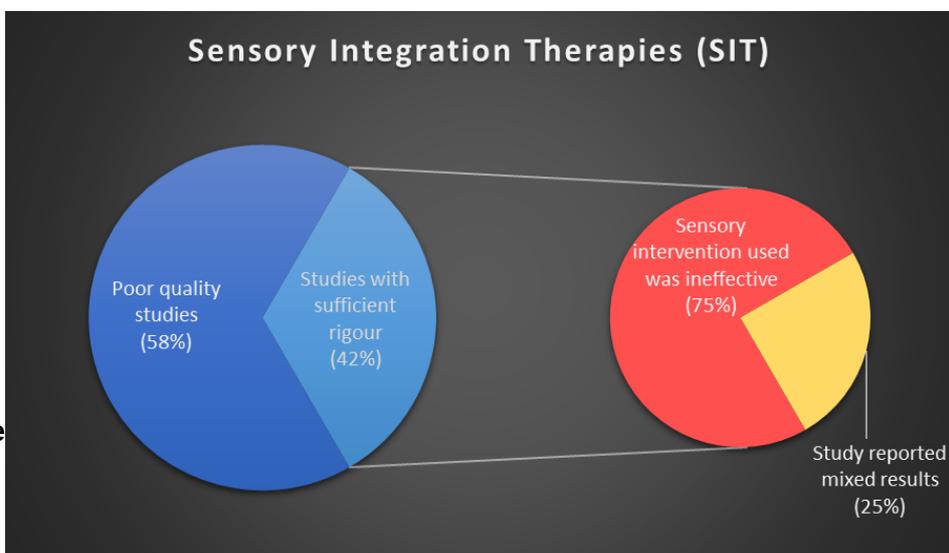
- **Sensory diets:** the provision of sensory activities (e.g., bouncing, swinging) at regular intervals throughout the day.
- **Weighted vests/blankets:** the student wears a purpose designed vest/blanket, typically weighing up to 10% of their body weight.
- **Deep pressure therapy:** the application of tactile sensory input in the form of hugging, squeezing, massage, and firm holding.
- **Snoezelen rooms:** (also known as multi-sensory environments) spaces/rooms designed and dedicated to providing sensory stimulation to the student's primary senses of touch, taste, sight, sounds and smell.

## What does the research say?

**High-quality studies have found these to be ineffective teaching practices.**

• 24 intervention studies were identified in the research literature, published between 1997 and 2018, that met criteria for inclusion (i.e., focused on school aged children with autism). Of these, only 8 met the threshold for being scientifically sound, and included a total of 143 children and youth.

• For studies with sufficient scientific rigour, three quarters found SIT was either **ineffective** at reducing challenging or self-stimulatory behaviours, or that the **alternative therapy employed was more effective**, and 25% reported mixed results across participants.



## What does this mean?

Of studies with sufficient scientific rigour, not one found sensory integration to be effective for all participants. We do not recommend the use of SIT. This is due to a lack of reliable research to support effectiveness.

## What can I do instead?

Fortunately, effective alternatives exist to support the sensory challenges of students with autism. Among them is Antecedent Based Interventions (ABI), which have been proven to be effective in understanding and supporting accommodations for student needs, including their sensory processing differences, and consequently supporting learning, and reducing some of the challenging behaviours associated with autism.

## EFFECTIVE PRACTICE

# ANTECEDENT BASED INTERVENTION

**FACT:** Antecedent-based interventions are effective at supporting learning and reducing challenging behaviours in children with autism.

Antecedent Based Interventions (ABIs) are behaviourally based teaching practices that can be easily implemented in the classroom for use with students with autism. ABIs focus on identifying and addressing environmental conditions that might trigger challenging or interfering behaviours in children with autism, and work to proactively implement strategies to avoid or reduce the likelihood that these behaviours will occur (ref. 1). These interventions are effective as they identify external factors such as sensory input (e.g., light, noise, visual distractions) that impact the child and modify the external factors to accommodate the child's needs, rather than trying to change the child (e.g., their sensory processing).

ABIs, sometimes called 'pre-activity interventions', include but are not limited to modifying activities, providing choices, priming students, and environmental arrangement or audits.

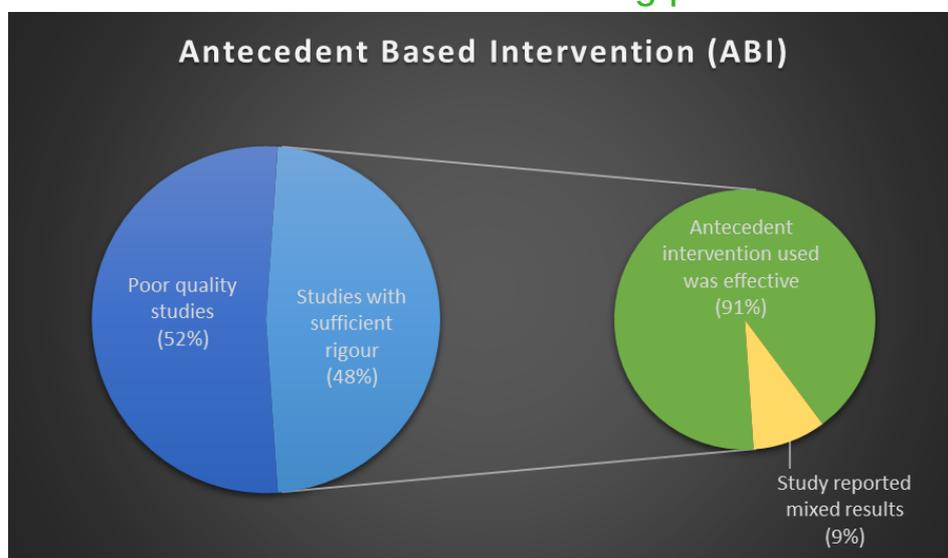
- **Modifying activities:** changing some aspect of the task, materials, or schedule to better suit the student. For example, incorporating student interests into activities.
- **Providing choices:** giving students a choice between two tasks, activities, or rewards.
- **Priming:** preparing children for an activity or transition ahead of time. For example, talking through when, where, and how an activity or transition will happen.
- **Environmental arrangement/audits:** assessing and altering the physical and sensory properties of the classroom environment to better support the learning of children that occurs in that environment. For example, sitting on chairs instead of the floor, and/or arranging furniture to ensure smooth transitions.

### What does the research say?

High-quality studies have found these to be **effective** teaching practices.

- 23 intervention studies were identified in the research literature, published between 2002 and 2018, that met criteria for inclusion (i.e., focused on school aged children with autism). Of these, 11 met the threshold for being scientifically sound, and included a total of 30 children and youth.

- For studies with sufficient scientific rigour, 91% found that the ABI used was **effective** – increasing on-task engagements, reducing problem behaviours, or reducing stereotypy. Only 9% reported mixed results across participants.



### What does this mean?

Reviews of the literature have consistently found empirical support for the use of ABI, as such we recommend the use of these strategies due to reliable empirical support. The use of ABI is further supported by organisations including:

- **Queensland Government Autism Hub and Reading Centre** - please visit <https://ahrc.eq.edu.au/services/fba-tool/help/pre-activity-intervention> for more details
- **Autism Education Trust** - Department of Education UK
- **National Institute for Healthcare and Excellence (NICE) UK** - see 'Interventions for behaviour that challenges' at <https://www.nice.org.uk/guidance/cg170/chapter/1-Recommendations#interventions-for-behaviour-that-challenges>