

Sensory Integration Therapy

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Statement of the Problem

In addition to problems with learning, some individuals with special needs may display a range of other difficulties including challenging behaviour (e.g., self-injurious and stereotypic behaviour), difficulties with task-related behaviour (concentration) and atypical responses to sensory stimuli (e.g. over-reacting to touch, sensitivity to noise), which may interfere with learning to varying degrees.

Proposed Solution/ Intervention

Sensory integration is claimed to address learning, behaviour and sensory problems. It involves the provision of controlled sensory stimulation, typically by or under the supervision of an occupational therapist. A wide variety of activities may be involved including swinging in a hammock, riding on a scooter board, rubbing or brushing of the skin, and compression (pushing down) on joints. Related interventions include the use of weighted vests and provision of "sensory diets", where the environment is modified to accommodate the sensory needs of the individual. Sensory integration was originally popularised for children with learning disabilities but has been used with a wide variety of different problems. According to some recent research, sensory integration is now commonly employed with children who have autism spectrum disorders.

The theoretical rationale – how does it work?

Sensory integration is based on the premise that a range of functional problems result from underlying deficits in the way that sensory information is processed. In addition, it is presumed that providing controlled sensory stimulation can remediate this underlying dysfunction. Thus, it is proposed that sensory integration therapy would facilitate higher-level learning and address challenging behaviour by

correcting these underlying sensory processing deficits. This theory is speculative and not widely accepted outside of the field of occupational therapy.

What does the research say? What is the evidence for its efficacy?

Sensory integration therapy has been researched for over 40 years. While very early results were encouraging, numerous reviews over the past two decades have disconfirmed this promise. There remains no convincing evidence that the intervention is responsible for meaningful or sustained changes in learning, challenging behaviour, responses to sensory stimuli or task-related behaviour, for any diagnostic group.

Conclusions

There is very limited evidence to support the use of sensory integration therapy with individuals with special needs, including those with learning disability, intellectual disability and autism. Further, the intervention can be expensive and there are well-verified alternatives to address learning (e.g., direct instruction, applied behaviour analysis) and behaviour problems (e.g., functional assessment-based strategies). Some recent research has also provided preliminary evidence of the efficacy of a functional analysis-based desensitization approach to addressing oversensitivity to sensory stimuli. Consequently, sensory integration therapy cannot be recommended and educators are advised to invest time and resources in evidence-based alternatives.

The MUSEC Verdict:

Not Recommended

Key references may be found at:
http://www.musec.mq.edu.au/co_brief.aspx

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