Multisensory Environments to reduce challenging behaviour in people with severe disabilities

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Statement of the Problem
Around 15-17% of people with developmental disability exhibit a range of challenging behaviours including aggression, self-injury, stereotypic and destructive behaviour.

Proposed Solution/Intervention
Multisensory environments (MSE) provide a range of sensory stimulation from equipment such as light projectors, mirror balls, fibre-optic sprays, vibrating pads, aroma producers and sound equipment, at a cost of up to $A20,000. Traditionally, the person is exposed to the MSE in the company of an accepting and non-directive support person but recently more direct teaching of programs has occurred.

The theoretical rationale – how does it work?
The sensory stimulation provided by the light, sound, movement and aroma effects from the equipment installed in the room is claimed to stimulate the senses and result in relaxation. Proponents of multisensory environments (or snoezelen) claim that relaxation will reduce agitation and self-injurious behaviour.

What does the research say? What is the evidence for its efficacy?
There are few studies of the effect of MSEs on problem behaviour, and most of those have design flaws. Although many report within session improvements in behaviour, none show generalized out of session improvements in behaviour. There are also reports of problem behaviour exacerbated by MSE experiences. Most recently, a study reported in 2005, with 89 participants who all had a history of problem behaviour and who were randomly assigned to treatment conditions, showed MSEs were no better than the control activity sessions in reducing aggressive and self-stimulatory behaviour.

Conclusions
At this point given the poor designs of most studies, lack of evidence of effects outside the MSEs and the findings of the 2005 study, there is little evidence to support the use of MSEs as an intervention for challenging behaviour.

Alternative option
Interventions for challenging behaviour that are based on a functional assessment to identify the reinforcers of the behaviour are likely to be successful and have a strong research base.

The MUSEC Verdict: not proven

Key references may be found at: www.musec.mq.edu.au/CO_brief.asp