



# Multisensory stimulation

## DEMENTIA CARE

This evidence theme on multisensory stimulation is a summary of one of the key topics identified by a scoping review of dementia research.

### Key points

- Multisensory stimulation is the stimulation of two or more primary senses at the same time.
- It is thought to bring pleasure and an enhanced sense of wellbeing to people living with dementia.
- It appears to be effective in reducing responsive behaviours such as agitation and aggression and improving people's ability to manage their self-care.
- The effect of multisensory stimulation on mood and anxiety remains unclear.
- There is no evidence suggesting multisensory stimulation improves sleep quality.

### What is multisensory stimulation?

Multisensory stimulation involves stimulating two or more primary senses—touch, taste, sight, hearing, and smell—at the same time. For people living with dementia, these senses tend to deteriorate over time but can be reactivated through activities and experiences that target them specifically. These experiences can also bring pleasure and a sense of wellbeing when they make up for a lack of stimulation in the person's environment. [1]

This approach can take many forms but is always person-centred with a non-directive, enabling approach. This means people are left to move towards what interests them in a non-structured way. [1]

Multisensory initiatives may take the form of:

- Specially constructed multisensory stimulation rooms (also called 'Snoezelen') where the person living with dementia might encounter aromatherapy, coloured water columns, fibre-optic cables, and different objects to touch or hold. [1]
- Sensory (or 'dementia') gardens with a mix of sensory-stimulating and sensory-calming features and spaces. [2]

Other elements that might be included in a structured multisensory stimulation program include music therapy, bright light therapy, vibrating pillows, weighted blankets, lava lamps, mirror balls, wall projectors, and massage. [1]

## Is multisensory stimulation effective?

Three reviews studied the impact of multisensory approaches on people living with dementia. They were designed to find out if the approach reduced responsive behaviours or improved low mood, anxiety, sleep quality, and people's ability to perform everyday activities. [1, 3, 4]

They found that:

- Multisensory stimulation using two or more sensory elements was effective in reducing aggression and both physical and verbal agitation, but the effects appear to last for a short time only. [1, 4]
- While multisensory stimulation achieved positive benefits, so did simpler activities such as playing cards, looking at photos, and reminiscence therapy. [4]
- The use of multisensory stimulation appears to improve people's ability to perform everyday self-care tasks such as dressing, feeding, and walking. [1]

There is less conclusive evidence that multisensory stimulation improves mood and anxiety in people living with dementia. This is because some studies observed benefits while others did not. [1, 4]

There is no clear evidence that multisensory stimulation improves the rest-activity rhythm and sleep quality of people living with dementia. [3] However, single rather than multiple stimulation activities have demonstrated sleep benefits. [3] For example, bright light therapy, massage, and acupuncture were able to reduce night-time wakefulness and increase sleep duration. [3]

## Evidence limitations

Researchers observed some limitations in the research on this topic which may affect our degree of confidence in the findings. These included:

- The small number of studies that have investigated the topic, possibly due to the costs of the intervention
- The small number of study participants in some studies
- Studies do not offer guidance on who might benefit, when it should be used, and how frequently. [4]

There may be more recent studies on this topic. Try using the PubMed search on the ARIIA website to discover them.

## What can an individual do?

Multisensory stimulation can be used to achieve a range of goals such as calming, stimulating, comforting, or distracting a person living with dementia. Stimulation can also bring people together, helping them feel less isolated. The benefits of this approach can be achieved without great expense, by using a combination of stimulatory items (no more than 2-3) already at hand. For example:

- Play a video of the beach with wave sounds combined with a box of shells for touching.
- Combine touch (hand massage, hair brushing, nail care) with stimulating tastes (sour, sweet, bitter), along with different smells and sounds.
- Family members might take the lead, inviting the person living with dementia to sit in a scented, colourful garden with water features or to peel and eat a fragrant fruit. [4]

The main objective is to tailor the experience to things the individual enjoys doing and is happy to take part in. Let the person experience the sensations in their own way and at their own pace while you monitor for signs of discomfort.

## What can the organisation do?

Commercially produced multisensory stimulation rooms such as Snoezelen are expensive to set up and tailored, supervised experiences require staff time to oversee. [4] However:

- Environments could be improved to increase sensory stimulation through improved light, reduced background noise, and the introduction of more interesting sounds such as music.
- Organisations might start small and gradually develop their multisensory resources over time.
- Existing gardens could be steadily enhanced to include a wider range of sensory experiences. See resource in the ARIIA Knowledge Hub.
- Staff could be trained to be aware of, and sensitive to, the sensory experiences of people living with dementia in their care. Being overstimulated may impact people's wellbeing as much as being understimulated.

## References

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