Both multisensory stimulation and activity sessions improved mood and behaviour in dementia in the short term


**QUESTIONS:** In patients with dementia, is multisensory stimulation (MSS) more effective than activity sessions for improving behaviour and mood, and do the effects endure?

**Design**
Randomised [allocation concealed†, unblinded*, controlled] trial with 1 month of follow up after 4 weeks of treatment.

**Setting**
3 day centres in Dorset, UK (home assessments were also done).

**Patients**
50 patients (mean age 78 y, 50% women) who lived at home with a primary caregiver; had a diagnosis of Alzheimer's disease, or vascular or mixed dementia that was corroborated by the Cambridge Examination for Mental Disorders in the Elderly tool; had moderate to severe cognitive impairment (Mini-Mental State Examination [MMSE] score 0–17); and attended 1 of 3 day centres ≥2 days/week. Exclusion criteria were additional psychiatric diagnoses or ≥1 MSS session in the previous 3 months. 2 patients dropped out of the MSS sessions, but all patients were assessed.

**Intervention**
Patients were allocated to 8 one to one sessions of MSS (n = 25) or activity (n = 25) for 4 weeks (two 30 minute sessions weekly). The MSS sessions involved stimulating all senses except taste; were non-directive and enabling; made no intellectual or physical demands on the patient; and used unpattened, non-sequential stimuli. The activity sessions had specific aims and focuses (eg, jigsaw puzzles), were directive, used patterned and often sequential stimuli, and made intellectual and physical demands specific to the activity.

**Main outcome measures**
Behaviour, mood, and cognition were measured in homes and day centres using the Behaviour and Mood Disturbance (BMD) Scale, Hall and Baker's REHAB scale, and the MMSE. The immediate effect of sessions on behaviour and mood was also assessed (INTERACT SHORT scale).

**Main results**
Both groups showed immediate beneficial effects for 6 of 12 INTERACT SHORT items. After treatment, ratings of behaviour and mood at home improved more in the MSS group than the activity group (adjusted mean difference in change from baseline BMD score –3.8, 95% CI –7.6 to 0.0). The activity group showed greater improvement than the MSS group in speech skill scores in day centres (adjusted mean difference in change from baseline REHAB score 0.8, CI 0.1 to 0.6). In the month after treatment ended, the MSS group had greater deterioration in BMD total score than the activity group, losing the improvements gained (table). Cognitive scores remained stable in both groups throughout the study.

**Conclusions**
In patients with dementia, both multisensory stimulation (MSS) and activity sessions had an immediate beneficial effect on behaviour and mood, which generalised to the home environment for MSS only. The effects were lost once treatment stopped.

*See glossary.
†Information provided by author.