Multisensory stimulation was not better than usual activities for changing cognition, behaviour, and mood in dementia


In older adults with dementia, does individualised multisensory stimulation (MSS) improve behaviour, mood, and cognition more than a control activity (eg, playing cards, looking at photographs, or doing quizzes)?

Methods

Main results

Analysis was by intention to treat. Treatment groups did not differ for changes in behaviour and mood after sessions. During sessions, the MSS group recalled more memories than the activity group, whereas the CST study included MSS whenever possible; however, the type of stimulus and extent to which this occurred were not reported. The MSS group was compared with an activity session (active control), whereas the CST group was compared with “usual activities” (passive control). The participants in the MSS study had greater cognitive impairment (mean MMSE score = 8.1) than those in the CST study (mean MMSE score = 14.4). The medication profiles of the participants were not reported in either study, although we know that none of the participants in the CST study were receiving acetylcholinesterase inhibitors—the only drugs that have been shown to improve cognition in dementia. The MSS study assessed changes in cognition, behaviour, and mood at baseline, during and after the trial, and after 4 weeks, whereas the CST study examined cognition, quality of life, communication, behaviour, and mood at baseline and after the trial.

Participants in the 7 week CST group were found to make significant improvements in cognition (4 or more points on the MMSE, number needed to treat = 6) and quality of life relative to those who received no activity. Although the authors of the CST study claim that CST has an effect of similar magnitude to acetylcholinesterase inhibitors in improving cognition, this conclusion is based on an inditred comparison in different patients who were not part of the same randomised controlled trial. We must wait therefore for a head-to-head comparison of CST and drug therapy. It may also be informative to compare group CST with individual MSS to examine better the relative effects of each treatment. Neither study showed significant changes in the behavioural and mood measures. Offering the treatment over a longer time may transform the cognitive changes into observable behavioural and mood changes, but this requires evaluation.

Care providers (eg, nurses and special care aides) working with this population should have confidence in these findings because both studies were methodologically rigorous and the sample sizes were adequate. The evidence suggests that CST is better than no activity and that MSS, as delivered in the study by Baker et al, has a similar effect to other activities in improving cognition in patients with moderate to severe dementia. However, some patients may benefit more from these treatments than others. People with dementia may present with a variety of symptoms (eg, memory impairment; deficits in judgment, comprehension, task execution, and language; and visual hallucinations) depending on the type (eg, Alzheimer’s disease, vascular dementia, or dementia with Lewy bodies) and severity of dementia. Until further research shows the influence of type and stage of dementia on the efficacy of these treatments and identifies the most effective dose, frequency, and duration of the intervention, care providers should be sensitive to factors that may influence treatment outcomes. For example, because MSS uses non-verbal communication skills, perhaps individuals who present with communication difficulties may benefit to a greater extent than others. People with substantial visual hallucinations and disruptive behaviours may be unsuitable for a CST group.

Care providers have a responsibility to enhance the daily quality of life of residents with dementia in long term care facilities. CST and MSS are 2 approaches that could be used to make the lives of patients with dementia more meaningful and stimulating.