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Särkämö, Teppo

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Singing the blues away: reduction of depression in dementia by recreational choir singing



With the accelerated ageing of global populations and the rapidly increasing prevalence of dementia, the UN has declared 2021–30 as the Decade of Healthy Ageing and has called for actions to improve the lives of older people. A key facet of this call to action is ensuring that people with dementia have access to good-quality, long-term care crucial for maintaining their functional ability, enjoying basic human rights, and living with dignity. In people with dementia, the behavioural and psychological symptoms are among the most pervasive and burdening sequelae of the illness, and among them depression has the highest point and 5-year period prevalence.¹ Given that antipsychotic and other psychotropic medications are generally not indicated to alleviate the behavioural and psychological symptoms of dementia, the current Dementia Care Practice Recommendations of the Alzheimer's Association recommend implementing non-pharmacological practices that are person-centred, evidence-based, and feasible in the care setting to treat the behavioural and psychological symptoms of dementia.²

Among the non-pharmacological practices in dementia care, music-based interventions have attracted growing interest over the past decade, and their potential for enhancing health and wellbeing in dementia has been emphasised in recent policy reports of WHO³ and the Global Council on Brain Health.⁴ Converging evidence from small-scale clinical studies in people with dementia suggests that music interventions are a viable and promising tool for meeting the above-mentioned Dementia Care Practice Recommendations criteria and inducing at least short-term alleviation of the behavioural and psychological symptoms of dementia, including depression.^{5,6} However, the long-term efficacy and the clinical significance of music-based interventions on depression in dementia has remained elusive due to variability in the type, frequency, and duration of the interventions; the severity of dementia; and the outcome measures used to assess depressive symptoms.

In *The Lancet Healthy Longevity*, Felicity Baker and colleagues⁷ report the results from the Australian cohort of the ongoing international MIDDEL trial, which compares the efficacy of group music therapy

(GMT) and recreational choir singing (RCS)—the two most widely used music-based interventions for people with dementia—in improving depressive symptoms, neuropsychiatric symptoms, and quality of life in people with dementia who had mild to severe depressive symptoms. Using a cluster-randomised controlled trial with a 2×2 factorial design, the study included a relatively large sample of people with dementia (20 care home units with a total of 318 residents) who received either standard care, GMT, RCS, or a combination of the two interventions (GMT plus RCS) delivered over 6 months in a graded fashion (twice per week for 3 months and then once per week for 3 months; double amount for GMT plus RCS). Outcome assessments were done at baseline, and at months 3, 6 (primary endpoint), and 12 using masked assessors and widely used standardised outcome measures. Analysed using linear mixed-effects models, the results for the primary outcome (Montgomery-Åsberg Depression Rating Scale [MARDS]) showed that RCS but not GMT had a positive effect on depressive symptoms at the 3 months and 6 months, as well as at the longitudinal 12-month stage. In a subsample of people with moderate to severe dementia (Clinical Dementia Rating score ≥ 2 , $n=253$), both RCS and GMT reduced MADRS scores at 3 months, but only RCS showed this beneficial effect at months 6 and 12. In secondary outcomes, RCS showed a positive effect on the severity of neuropsychiatric symptoms, measured with the Neuropsychiatric Inventory Questionnaire (NPI-Q Severity), and on general health, measured with EuroQol (EQ-5D-VAS) and both RCS and GMT had a positive effect on caregiver distress associated with neuropsychiatric symptoms (NPI-Q Distress).

The main advantage of this work is the level of experimental control and statistical power afforded by the factorial cluster-randomised controlled trial design and substantial sample size, as well as the use of two standardised music interventions that were delivered with adequate treatment fidelity. These facets make this the largest and most robust study to date on the efficacy of music interventions in people with dementia. The results were in favour of RCS over GMT for depressive symptoms (MARDS), although this difference was

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more levelled in late-stage dementia where both RCS and GMT showed positive effects. The benefit of RCS might be linked to the social interaction, behavioural activation, and experience of engaging in a fun joint activity, which were more pronounced elements in RCS than GMT. As an intervention model, RCS is also potentially more scalable and cost-effective than GMT, because it can be done in larger groups and does not require as extensive specialised training to implement. Yet, important questions on the broader efficacy, generalisability, dose-effect relations, and working mechanisms of the interventions still need to be explored in a larger study; in this, the full international MIDDEL trial with data from five European countries will hopefully provide important answers.

I declare no competing interests.

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Teppo Särkämö
teppo.sarkamo@helsinki.fi

Cognitive Brain Research Unit, Centre of Excellence in Music, Mind, Body and Brain, and Department of Psychology and Logopedics, University of Helsinki, FI-00014 Helsinki, Finland

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