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Article Details

Title: Music-based therapeutic interventions for people with dementia.

Authors:

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Abstract:

BACKGROUND: Dementia is a clinical syndrome with a number of different causes which is characterised by deterioration in cognitive, behavioural, social and emotional functions. Pharmacological interventions are available but have limited effect to treat many of the syndrome's features. Less research has been directed towards non-pharmacological treatments. In this review, we examined the evidence for effects of music-based interventions as a treatment. **OBJECTIVES:** To assess the effects of music-based therapeutic interventions for people with dementia on emotional well-being including quality of life, mood disturbance or negative affect, behavioural problems, social behaviour, and cognition at the end of therapy and four or more weeks after the end of treatment. **SEARCH METHODS:** We searched ALOIS, the Specialized Register of the Cochrane Dementia and Cognitive Improvement Group (CDCIG) on 14 April 2010 using the terms: music therapy, music, singing, sing, auditory stimulation. Additional searches were also carried out on 3 July 2015 in the major healthcare databases MEDLINE, Embase, psycINFO, CINAHL and LILACS; and in trial registers and grey literature sources. On 12 April 2016, we searched the major databases for new studies for future evaluation. **SELECTION CRITERIA:** We included randomized controlled trials of music-based therapeutic interventions (at least five sessions) for people with dementia that measured any of our outcomes of interest. Control groups either received usual care or other activities. **DATA COLLECTION AND ANALYSIS:** Two reviewers worked independently to screen the retrieved studies against the inclusion criteria and then to extract data and assess methodological quality of the included studies. If necessary, we contacted trial authors to ask for additional data, including relevant subscales, or for other missing information. We pooled data using random-effects models. **MAIN RESULTS:** We included 17 studies. Sixteen studies with a total of 620 participants contributed data to meta-analyses. Participants in the studies had dementia of varying degrees of severity, but all were resident in institutions. Five studies delivered an individual music intervention; in the others, the intervention was delivered to groups of participants. Most interventions involved both active and receptive musical elements. The methodological quality of the studies varied. All were at high risk of performance bias and some were at high risk of detection or other bias. At the end of treatment, we found low-quality evidence that music-based therapeutic interventions may have little or no effect on emotional well-being and quality of life (standardized mean difference, SMD 0.32, 95% CI -0.08 to 0.71; 6 studies, 181 participants), overall behaviour problems (SMD -0.20, 95% CI -0.56 to 0.17; 6 studies, 209 participants) and cognition (SMD 0.21, 95% CI -0.04 to 0.45; 6 studies, 257 participants). We found moderate-quality evidence that they reduce depressive symptoms (SMD -0.28, 95% CI -0.48 to -0.07; 9 studies, 376 participants), but do not decrease agitation or aggression (SMD -0.08, 95% CI -0.29 to 0.14; 12 studies, 515 participants). The quality of the evidence on anxiety and social behaviour was very low, so effects were very uncertain. The evidence for all long-term outcomes was also of very low quality. **AUTHORS' CONCLUSIONS:** Providing people with dementia with at least five sessions of a music-based therapeutic intervention probably reduces depressive symptoms but has little or no effect on agitation or aggression. There may also be little or no effect on emotional well-being or quality of life, overall behavioural problems and cognition. We are uncertain about effects on anxiety or social behaviour, and about any long-term effects. Future studies should employ larger sample sizes, and include all important outcomes, in particular 'positive' outcomes such as emotional well-being and social outcomes. Future studies should also examine the duration of effects in relation to the overall duration of treatment and the number of sessions.

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