Use of preferred music to decrease agitated behaviours in older people with dementia: a review of the literature

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CRD summary
This review found that preferred music had positive effects on decreasing agitated behaviours in older adults with dementia; however, methodological limitations indicate a need for further research. The evidence presented was insufficient to provide robust evidence and the call for further research would appear appropriate. Furthermore, the review itself was limited in terms of reporting methodology and publication bias.

Authors' objectives
To review the effects of preferred music on agitated behaviours for older people with dementia.

Searching
MEDLINE, CINAHL, PsycINFO, PsycARTICLES and the Cochrane Database of Systematic Reviews were searched from 1993 to 2005 for publications in the English language; the search terms were reported. The reference lists of included studies were also checked. Only studies published in refereed journals were eligible.

Study selection
Study designs of evaluations included in the review
Intervention studies were eligible for inclusion.

Specific interventions included in the review
Studies of preferred or individualised music were eligible for inclusion. Most studies compared preferred music with no music or other types of treatment, including classical music, taped music, family-generated video, social interaction or hand massage. Where stated, music was delivered at fixed times, peak time of agitation, or during bathing time. The intensity ranged from three sessions each day over 3 days to 12 sessions over 6 weeks.

Participants included in the review
Studies of participants with dementia or Alzheimer's disease who also had agitated behaviours were eligible for inclusion. In the included studies, the age of the participants ranged from 69 to 97 years and all participants resided in long-term care facilities.

Outcomes assessed in the review
Explicit inclusion criteria were not reported in terms of the outcomes. The outcome measures used varied and, where stated, included informant ratings (such as the Cohen-Mansfield Agitation Inventory), self-developed behavioural checklists and videotaped recordings.

How were decisions on the relevance of primary studies made?
The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
The validity of each study was determined on the basis of sample, design, treatment, measures and findings. The exact tool used was not reported. It was unclear how many reviewers performed the validity assessment.

Data extraction
The authors did not state how the papers were extracted for the review, or how many reviewers performed the data extraction.
extraction. A summary of the studies and their findings were presented.

**Methods of synthesis**

How were the studies combined?
The studies were presented in tabular format and combined in a narrative.

How were differences between studies investigated?
Differences between the studies were discussed in terms of study design, treatments, outcome measures and findings.

**Results of the review**

Eight studies (n=120) met the inclusion criteria: two randomised crossover studies (n=57), three non-randomised crossover studies (n=40), one quasi-experimental study (n=14), one case-control (n=4) and one case study (n=5).

The authors stated that most of the included studies used a purposive sample with small sample size; thus limiting the external validity of the studies.

Seven of the eight included studies reported that preferred music was associated with a significant decrease in the occurrence of some types of agitated behaviour. Two of these studies showed decreased agitated behaviour during and after the intervention. The remaining five studies showed improvement during the intervention.

One study found no significant decrease in agitated behaviour with preferred music, but showed improved relaxation.

**Authors' conclusions**

Preferred music has a positive effect on decreasing agitated behaviours in older people with dementia. However, methodological limitations indicate the need for further research.

**CRD commentary**

The review question was broadly defined in terms of the participants and intervention only. Several relevant sources were searched to identify relevant studies, although restricting inclusion to studies published in English in refereed journals means that potentially eligible studies might have been overlooked. Methods used to minimise reviewer error and bias in the review process were not reported. A validity assessment was undertaken, although information on the criteria used were not reported in sufficient detail to comment on its appropriateness. However, the authors did discuss the methodological limitations of the evidence presented.

Details of the individual included studies highlighted considerable variation in treatments, outcome measures and study design, thus the narrative synthesis was appropriate. Study quality was not taken into account when reporting the results, which means that those results based on higher quality evidence were not highlighted. The authors correctly highlighted the need to be cautious in drawing conclusions from the included, methodologically flawed studies. However, their conclusion might have overstated the benefits of preferred music given the considerable limitations in the evidence presented and in the reporting of review methodology.

**Implications of the review for practice and research**

Practice: The authors stated that the incorporation of preferred music has the potential to provide a therapeutic approach to the care of older people with dementia.

Research: The authors stated that more studies with larger sample size and using an experimental design are required to provide empirical evidence of the effectiveness of preferred music in this population. Future research should investigate the interaction effects of several variables and the severity of dementia, and also assess the validity of behavioural checklists. Qualitative studies should also be used to assess attitudes and perceptions of nursing staff.
Bibliographic details

PubMedID
16164531

DOI
10.1111/j.1365-2702.2005.01218.x

Indexing Status
Subject indexing assigned by NLM

MeSH
Aged /psychology; Aged, 80 and over; Attitude to Health; Choice Behavior; Cost-Benefit Analysis; Dementia /complications; Feasibility Studies; Health Services Needs and Demand; Humans; Music Therapy /economics /methods /standards; Psychomotor Agitation /etiology /prevention & control /psychology; Research Design; Sample Size; Severity of Illness Index; Treatment Outcome

AccessionNumber
12005004646

Date bibliographic record published
30/04/2007

Date abstract record published
30/04/2007

Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.