Music therapy in the treatment of multiple sclerosis: a comprehensive literature review
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CRD summary
The review concluded that music therapy offered an effective therapeutic approach for promoting a positive self-identity and relief for the emotional burden on patients with multiple sclerosis. Due to incomplete reporting of review methods, lack of assessment of validity and reliance on observational data, the authors' conclusions may not be reliable.

Authors' objectives
To evaluate the use of music therapy for treatment of multiple sclerosis.

Searching
MEDLINE, EMBASE, AMED, CAMbase and the Music Therapy World Journal Index were searched using search terms in English, French and German. Search terms in English were reported. Search dates were not reported. In addition, an Internet search was conducted using Google Scholar. Internet home pages and journals of national Music Therapy Associations in the USA, Australia, Canada and the UK were also searched. Bibliographies of retrieved articles were scanned for relevant studies.

Study selection
Any study evaluating the use of music therapy for the treatment of multiple sclerosis was eligible for inclusion. Inclusion criteria for outcomes were not explicitly reported.

Interventions in the included studies were individual and group music therapy and varied widely between studies (details reported in review). Neurological impairment was classified using Kurtzke's Expanded Disability Status Scale (EDSS) and scores ranged from 1 to 9.

The authors did not state how papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
Details of main outcomes were extracted from individual studies. If explicitly reported the patient's neurological impairment in multiple sclerosis using the EDSS (Kurtzke's Expanded Disability Status Scale) was extracted. If neurological impairment was only reported descriptively, the authors approximated the EDSS.

The authors did not state how many reviewers performed the data extraction.

Methods of synthesis
The studies were combined in a narrative synthesis. Each study was described in the text and additional descriptive information was presented in a table.

Results of the review
Fifteen studies (n=approximately 368) were included in the review.

Seven case series or reports evaluated music therapy in the treatment of multiple sclerosis and reported: improvements for emotional expression and stabilisation of mood (n=1); heightened sense of ability, feelings of success and achievement, and meeting emotional needs relating to changes brought about by multiple sclerosis (n=1); help in reconstructing identity, decision making and social interaction reported enhancement of autonomous activity and direct emotional expression (n=10); improved enhancement of autonomous activity and direct emotional expression (n=2); improvement of interaction and social support and a reduction of anxiety (n=1); strengthen feelings of group
Four observational studies evaluated music therapy in the treatment of multiple sclerosis and reported: improvement and encouragement in communications skills and socialisation (n=39); psychological support and improvement in individual coping strategies (n=225); significant improvements in mood subscales (n=5); no results (n=approximately 8).

Two qualitative studies evaluated music therapy in the treatment of multiple sclerosis and reported: individual and group music therapy met participants physical, psycho-social and spiritual needs (n=22); a dynamic sense of interaction and physical involvement (n=6).

One pilot study with control group evaluated music therapy in the treatment of multiple sclerosis and found improvements in relaxation and diaphragmatic breathing and also found group music therapy group improved expiratory muscle strength (n=20).

One matched pairs controlled pilot study evaluated music therapy in the treatment of multiple sclerosis and found improvements in self acceptance, depression and anxiety (n=20).

Authors’ conclusions
Results reported that music therapy offered an effective therapeutic approach for promoting a positive self-identity and relief for the emotional burden on a patient with multiple sclerosis.

CRD commentary
The inclusion criteria were broadly defined. Several relevant sources were searched and some attempts were made to reduce language and publication bias. Methods used to select studies, assess validity and extract data were not described, so it is not known whether efforts were made to reduce reviewer errors and bias. Study validity was not formally assessed, so results from these studies and any synthesis may not be reliable. Sample sizes of the included studies were generally small. Given the differences between studies, a narrative synthesis was appropriate. Although some study details were reported results, they were not supported by data or levels of statistical significance. This means it was not possible to verify the findings reported in the review. The authors also report including fourteen studies, but fifteen studies are reported in text and tables. Due to incomplete reporting of review methods, lack of assessment of validity and reliance on observational data, the authors’ conclusions may not be reliable.

Implications of the review for practice and research
Implications for practice: The authors did not state any implications for practice.

Implications for research: The authors stated that further research was needed evaluating music therapy for the treatment of multiple sclerosis, conducted using valid outcome measures and statistically reliable methodology, as well as including multicentre cooperations. Future studies should be of flexible designs including quantitative and qualitative data. Further research should also seek independent funding.

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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.