The Development and Evaluation of Music in Dementia Assessment Scales (MiDAS)

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Abstract

Evaluation of music therapy is a complex task. The majority of quantitative music therapy studies in dementia use standardised psychiatric outcome measures to evaluate the impact of music on the reduction of neuropsychiatric symptoms. However, clinically important changes are highly individual and there are concerns that these measures may not portray what matters most to the client. There was a need to develop a clinically relevant and scientifically robust outcome measure incorporating the values and view of people with dementia.

A narrative synthesis systematic review found consistent evidence for short-term improvement in mood and reduction in behavioural disturbance but there were no high-quality longitudinal studies that demonstrated long-term benefits of music therapy. The review also confirmed that no psychometrically validated outcome measure specifically designed for music therapy with people with dementia was used in the current literature.

In order to develop a clinically meaningful outcome measure, focus groups and interviews with people with dementia, family carers, care home staff and music therapists were conducted to explore the value of music for people with dementia and the observed effects of music. The accessibility and immediacy of musical experiences for people at all stages of dementia, a close link between personal identity and music and the importance of shared musical experiences were particularly highlighted. Key comments and recurring themes were transcribed and scrutinised through expert and peer consultations to identify scale items and ensure the content validity of the new outcome measure.

Music in Dementia Assessment Scales (MiDAS) comprises of the five Visual Analogue Scales (VAS) items: levels of Interest, Response, Initiation, Involvement and Enjoyment, and a supplementary checklist of major reactions from the individual with dementia consisting of three ‘positive reactions’ (attentive/interested, cheerful/smiling, relaxed mood) and three ‘negative reactions’ (agitation/aggression, withdrawn/low in mood, restless/anxious). A space for a rater’s own comment is provided to aid clinical interpretations of MiDAS. MiDAS version 1 was field-tested by a music therapist and staff in a care home. Feedback from the clinicians and further peer consultations were incorporated during the refinement stage of the scales. MiDAS version 2 was produced for the main study.

In order to evaluate the reliability and the validity of MiDAS, weekly MiDAS ratings were collected from music therapists and care home staff. Nineteen care home residents with moderate to severe dementia attended group music therapy for up to 10 sessions. A total of 629 MiDAS forms were completed during the main study. The statistical analysis revealed MiDAS has a high therapist inter-rater reliability, a low staff inter-rater reliability, an adequate staff test-retest reliability and a fair concurrent validity. Factor analysis revealed high factor loadings between the five VAS items. MiDAS was found to be sensitive to change and feedback from the study participants confirmed the clinical relevance of MiDAS.

This is the first study attempted to develop a psychometrically validated outcome measure from the qualitative data exploring the values of music for people with dementia. Future recommendations include further evaluation of MiDAS in a randomised controlled trial, an investigation of the benefits of music therapy on apathy in people with dementia, and the development of MiDAS self-rating version.