

Music Therapy Interventions for People with Dementia: An Umbrella Review

Chatzikou Vasileia

Senior Registrar Anesthesiologist, Saudi Arabia

Abstract: The growing number of people living with dementia around the world draws attention to the costs of age-related deterioration, which impacts physiology, psychological and cognitive status, as well as social and emotional well-being. Nonpharmacological methods to these difficulties are recommended by current geriatric care standards, including safe techniques to managing pain and stress, improving symptom relief, and supporting independent lifestyles with the maximum possible quality of life. The goal of this article is to provide definitions for music-based interventions, music therapy applications, and clinician credentials, as well as an overview of meta-analyses on music-based interventions for dementia patients. The findings show that most research-based descriptions of music therapy protocols are lacking in depth, making it difficult for researchers to compare and repeat studies and practitioners to apply strategies. Music therapy and music-based interventions are defined in a variety of ways, and practitioners' professional training and readiness for adopting music-based clinical techniques varies. Future researchers should include detailed explanations of music therapy and music-based therapies in their protocols.

Keywords: music therapy, dementia, systematic reviews, clinical practice.

1. INTRODUCTION

Most residential settings for elder care have made a variety of music activities and services part of their regular programming, recognizing that music is a maintained skill in many adults with dementia [1,2]. These include, for example, local musicians and artists providing entertainment, background music pumped into public places, the use of personal music listening devices, and special clinical treatment by qualified music therapists, to name a few.

Almost anyone may build a "music protocol" and test it in a clinical trial because music is so easily accessible, available in different cultures and languages, unregulated, and simple to apply (as in the case of music listening). The purpose of this study was to look at how definitions of music-based interventions, music therapy applications, and clinician qualifications were presented in the literature. The investigator did a superficial study of research publications, as well as an umbrella mini-review of the interventions reported in papers from meta-analyses, with the goal of discovering potentially effective music-based interventions.

Music therapy has received a lot of attention in recent years as a treatment option for dementia patients. The American Music Therapy Association (AMTA) defines music therapy in the United States as "the clinical and evidence-based use of music treatments within a therapeutic relationship by a certified practitioner who has completed an accredited music therapy curriculum" [3].

"The professional use of music and its elements as an intervention in medical, educational, and everyday environments with individuals, groups, families, or communities who seek to optimize their quality of life and improve their physical, social, communicative, emotional, intellectual, and spiritual health," according to the World Federation of Music Therapy. Music therapy research, practice, education, and clinical training are all founded on professional standards that are culturally, socially, and politically relevant" [7].

This concept highlights the need of culturally aware practice and refers to spiritual health, a quality that is notoriously difficult to quantify. As a result, protocols produced by music therapists with diverse cultural backgrounds and global identities can reflect a wide range of ideas and practices from all over the world. The qualifications of a music therapist are not included in this worldwide definition, possibly due to the various training, standards, and practice models in different nations.

The advantages of employing music therapy techniques are numerous. For starters, music therapy is one of the few therapeutic modalities that can be used for both rigorous individual treatment and a group of people with different degrees of functioning. It is used in a variety of settings, including community and home settings, as well as long-term care facilities. Speech and language are used in many therapy treatments for dementia-related issues.

When verbal communication isn't an option, music therapy uses musical instruments and improvisation to express feelings, as well as music listening to elicit mood and response changes. Music therapy may accompany an individual throughout neurological loss, such as in Alzheimer's or Parkinson's illnesses, from early diagnosis through the terminal stages of these and other related ailments [8]. Both the therapeutic relationship and the subsequent reciprocal engagement contribute to music's power to impact behaviour, but these elements, of course, introduce sources of unpredictability into an experimental design. Finally, music therapy is non-invasive, non-toxic, and has little adverse effects.

2. METHODS

The precise therapies used in individual studies that matched the criteria for inclusion in the most recent systematic reviews were examined in this umbrella review. Fusar-Poli et al. [12], Pedersen et al. [15], Tsoi et al. [17], van der Steen et al. [18,19], and Zhang et al. [20] conducted these six studies. The umbrella review's findings are presented in a narrative format.

3. RESULTS

The umbrella mini-review looked into the sorts of music-based dementia therapies that were included in the six meta-analyses in greater depth. Each of the studies examined by Fusar-Poli et al. [12] looked at a distinct type of music and its impact on cognition. Exercises to stimulate attention and memory (STAM-Dem); playing, listening, and singing with instrumental accompaniment; the "U Sequence" method, which involves listening to specific sequences of musical selections; listening to preferred music; nonverbal music therapy to promote intersubjective communication; and discussing music that evoked emotions, thoughts, and memories were among them.

Favorite music playing while bathing, music streaming in the background, personalized music or music therapy sessions for varied amounts of time, 10-min exposure to music; and listening to prescribed music were among the interventions studied by Pedersen et al. [15]. Tsoi et al. [17] investigated the behavioral and psychological symptoms of dementia in response to active and receptive music therapy therapies, but did not differentiate between them.

In their meta-analyses on dementia in general, van der Steen et al. [18,19] used the most exclusive criteria for interventions in their Cochrane reviews. They only considered therapeutic music-based interventions that met at least two of the following criteria/indicators: therapy administered by a qualified music therapist, or interventions based on a therapeutic relationship and satisfying at least two of the following criteria/indicators: (1) therapeutic goal, such as communication, relationships, learning, expression, mobilization, and other pertinent therapeutic goals; (2) participants had a clinical indication for the intervention or were referred for the intervention by a clinician; (3) active participation of people with dementia using musical instruments or singing; and (4) participants had a clinical indication for the intervention or were referred for the intervention by a clinician" In a previous review, van der Steen et al. [18] were unable to determine the qualifications of individuals who presented the music in four out of 22 investigations, citing issues determining the clinician's or person who administered the protocol's education or experience. Zhang et al. [20] could not distinguish between qualified music therapist interventions and alternative music strategies, but did describe the usage of interactive vs. passive music approaches.

The majority of systematic reviews stated that music therapy or music-based therapies can benefit dementia patients. Clinicians would like to incorporate the evaluations' recommendations and guidelines into their practices as much as possible. This is, nevertheless, a difficult situation. In terms of design, measurements, outcomes, and conclusions, the

studies included in these evaluations differ significantly. Future papers should particularly highlight agreements and disputes between individual studies in their findings, as suggested in previous Cochrane reviews. In their recent Cochrane study from 2018, Van der Steen et al. [19] present a full description.

Many of the disparities in the results reached are due to the inclusion criteria for each review, such as the types of research designs that are permitted for inclusion. Based on randomized studies only, van der Steen et al. [18,19] found little to no effect for music-based interventions in reducing agitation, but Tsoi et al. [17] and Zhang et al. [20] found music therapy to be somewhat effective, based on the inclusion of non-randomized studies. The inclusion of research is also influenced by search words in specific languages. For example, van der Steen et al. [18,19] reviewed papers in English, French, German, and Dutch, which is significantly more comprehensive than non-European papers. Most crucially, music therapy and music-based interventions have a wide range of inclusion criteria and definitions, making clinical application even more difficult. Furthermore, the exact therapies that are being offered are only defined in broad strokes.

This mini-review also highlights the importance of cultural factors in the delivery of music interventions and music therapy, as well as the range of possible results of musical interventions. Given the important psychosocial and behavioral demands of people with dementia, music-based therapies have primarily focused on reducing disruptive behavior and agitation, as well as improving cognitive and overall quality of life, rather than medical outcomes.

The main result of the most recent Cochrane review [19] is that giving patients with dementia in institutional care with at least five sessions of music-based therapy intervention reduces depressive symptoms and improves overall behavioral difficulties at the end of treatment. It may also boost emotional well-being and reduce anxiety, but it has little to no effect on agitation, aggression, or cognition.

4. DISCUSSION

Over the last few decades, the number of studies and evaluations in the field of music therapy for patients with dementia has exploded. Individual studies and systematic reviews on the benefits of music and music therapy, however, provide limited descriptions of music-based interventions, notably in terms of the practitioner's qualifications and the use of music. Future study should include the practitioners' qualifications, including their level of professional education and expertise with dementia. The particular interventions being offered should be described in greater depth. Sessions are frequently characterized in objective terms, such as the duration of the session, group size, instruments, and general repertory; nevertheless, most research publications fail to address the therapeutic process during the course of treatment, particularly in relation to musical processes. The development of standardized protocols will make future research objectives easier to replicate. Protocols should be founded on scientific knowledge of underlying causes, as well as music therapists' and other clinicians' valuable work and best practices over the last 50 years. Guidelines for reporting research on music-based therapies should be referred to by researchers [34]. The majority of studies are nowadays carried out in nursing homes. Because many persons with dementia live at home, future research should look into the effects of music-based therapies in the home setting. More precise intervention descriptions will better inform doctors and make replication of protocols easier in the future. Only then will reviewers be able to characterize the exact consequences of various therapies more fully.

REFERENCES

- [1] Beatty W.W., Winn P., Adams R.L., Allen E.W., Wilson D.A., Prince J.R., Olson K.A., Dean K., Littleford D. Preserved cognitive skills in Dementia of the Alzheimer Type. *Arch. Neurol.* 1994;51:1040–1046.
- [2] Fang R., Ye S., Huangfu J., Calimag D.P. Music therapy is a potential intervention for cognition of Alzheimer's disease: A mini-review. *Transl. Neurodegener.* 2017;6.
- [3] American Music Therapy Association Definition of Music Therapy. 2018 Available online: <https://www.musictherapy.org/about/quotes/>
- [4] World Federation of Music Therapy Music Therapy. 2011 Available online: <http://www.musictherapyworld.org>.
- [5] Hanser S.B. *Integrative Health through Music Therapy: Accompanying the Journey from Illness to Wellness.* Palgrave Macmillan; London, UK: 2016.

International Journal of Novel Research in Healthcare and NursingVol. 8, Issue 2, pp: (359-362), Month: May - August 2021, Available at: www.noveltyjournals.com

- [6] Fusar-Poli L., Bieleninik L., Brondino N., Chen X.J., Gold C. The effect of music therapy on cognitive functions in patients with dementia: A systematic review and meta-analysis. *Aging Ment. Health.* 2017;2017:1–10.
- [7] Pedersen S.K.A., Andersen P.N., Lugo R.G., Andreassen M., Sütterlin S. Effects of music on agitation in dementia: A Meta-Analysis. *Front. Psychol.* 2017;8:742.
- [8] Tsoi K.K.F., Chan J.Y.C., Ng Y.M., Lee M.M.Y., Kwok T.C.Y., Wong S.Y.S. Receptive music therapy is more effective than interactive music therapy to relieve behavioral and psychological symptoms of dementia: A systematic review and meta-analysis. *J. Am. Med. Dir. Assoc.* 2018;2018.
- [9] Van der Steen J.T., van Soest-Poortvliet M.C., van der Wouden J.C., Bruinsma M.S., Scholten R.J., Vink A.C. Music-based therapeutic interventions for people with dementia. *Cochrane Database Syst. Rev.* 2017;2017.
- [10] Van der Steen J.T., Smaling H.J.A., van der Wouden J.C., Bruinsma M.S., Scholten R., Vink A.C. Music-based therapeutic interventions for people with dementia. *Cochrane Database Syst. Rev.* 2018;2018.
- [11] Zhang Y., Cai J., An L., Hui F., Ren T., Ma H., Zhao Q. Does music therapy enhance behavioral and cognitive function in elderly dementia patients? A systematic review and meta-analysis. *Ageing Res. Rev.* 2017;35:1–11.