

Ten Reasons Why Neurologists Should Refer Patients With Alzheimer Dementia to Music Therapy

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Abstract

Background

Alzheimer dementia (AD) constitutes a major societal problem with devastating neuropsychiatric involvement. Pharmaceutical interventions carry a heightened risk of side effects; thus, nonpharmacological interventions such as music-based interventions (MBIs), including music therapy, are recommended.

Recent Findings

The 2023 Neurology release of the Music Based Intervention Toolkit for Brain Disorders of Aging showcased music's emerging role as an intervention to manage symptoms of various brain disorders while defining the building blocks of MBIs to guide research in the exploration of music's therapeutic potential.

Implications for Practice

This study extends beyond the research aspects of the MBI Toolkit to clinical applications by providing neurologists with a summary of MBIs, the MBI Toolkit, how board-certified music therapists (MT-BCs) administered music therapy is a unique MBI, and 10 reasons why they should make referrals to music therapy for their patients with AD.

Introduction

Individuals living with Alzheimer dementia (AD) can experience a wide range of neuropsychiatric symptoms (NPSs), accelerated cognitive decline, and loss of independence.¹ Non-pharmacological interventions such as music-based interventions (MBIs), including music therapy (MT), are advocated as the initial treatment approach.^{1,2} MBIs refer to therapeutic approaches and practices that use music as a primary tool/medium to achieve specific therapeutic goals or outcomes. MBIs can involve listening to music, playing musical instruments, singing, and composing.³ MT and music medicine are 2 frequently used MBIs. Music medicine aims to relax the patient and typically consists of recorded music chosen by a medical professional.^{3,4} MT is distinct from other MBIs as board-certified music therapists (MT-BCs) use music as a medium to address nonmusical clinical objectives. On the basis of the MT assessment that includes the patient's values, identities, preferences, and motivations for treatment, MT-BCs use the patient's preferred music and present it in an engaging and accessible manner.⁵ The MT treatment plan is formulated collaboratively by the patient, MT-BC, and the multidisciplinary treatment team.

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Concurrent with published recommendations for non-pharmacological interventions in AD, the partnership between the Kennedy Center, NIH, and National Endowment of the Arts launched the Sound Health Initiative to promote research and investigate how music affects health and well-being, particularly in the context of neurologic disorders and conditions. As part of this initiative, the NIH published the MBI Toolkit for Brain Disorders of Aging in 2023 to define the building blocks of MBIs and provide standards for MBI researchers applying for NIH funding.⁶ Here, our article aims to provide clinical context beyond the MBI Toolkit in *Neurology* by educating clinicians with adequate knowledge to differentiate MBIs and make MT referrals to their patients with AD.

Clinicians prescribing MT should be aware that MT-BCs receive “rigorous” academic training consisting of music theory, music history, psychology, anatomy, psychology of music, and a variety of instruments and voice, and 1,200 supervised clinical hours before they are eligible for the qualifying Board Certification examination.⁷ The American Music Therapy Association has accredited these curricula to address professional and advanced MT competencies.^{8,9} The Certification Board for Music Therapists (CBMT) is an independent organization that monitors and safeguards the well-being and safety of MT service users. CBMT also oversees the recertification process that consists of 100 hours of continuing education every 5 years.¹⁰ Given the 2023 introduction to the Music Based Intervention Toolkit in *Neurology*,⁶ prescribers need to be able to differentiate the various types of MBI to make appropriate referrals for their patients. Therefore, the remainder of this study provides neurologists specializing in AD care with 10 reasons why they should make MT referrals for their patients with AD. Although MT can improve NPS in other types of dementia, we will focus on the beneficial effects of MT for AD in this article as AD is the most common type of dementia and has the strongest empirical support.

Ten Reasons to Refer Patients With AD to Music Therapy

1. Music Therapy Is Effective for Neuropsychiatric Symptoms in AD

When evaluating the treatment of NPS across a variety of MT clinical trials, active MT study groups consistently showed statistically significant improvement in behavioral and psychological systems over control or comparator groups.⁵ The MT interventions entailed music listening, singing, instrument playing, movement/dance, rhythmic exercises, music games, improvisation, and singing.⁵ Comparators included educational support, other entertainment activities, lyric reading, and placebo control.⁵ Across these studies, statistical improvement was calculated using the Neuropsychiatric Inventory (NPI), a common scale for evaluating the presence and severity of NPS. When scored in aggregate, the study groups engaging in active MT demonstrated improved

NPI outcomes.⁵ As such, MT can be an effective treatment for patients with AD.⁵

2. Potential Reduction in Neuropsychiatric Medication Polypharmacy

To address NPS in AD, patients are frequently prescribed antidepressants, sleep aids, benzodiazepines, and antipsychotics concomitantly.¹¹ Psychiatric polypharmacy can lead to a multitude of adverse effects including weight gain, dryness of mouth, sexual dysfunction, anticholinergic and cardiovascular side effects, falls, fracture, head injury, and physical harm.¹¹ Commonly used atypical antipsychotics are also associated with increased risk of metabolic syndrome, hyperlipidemia, diabetes mellitus type 2, glucose intolerance and a black box warning because of increased risk of death in dementia patients with neuropsychiatric symptoms.¹¹ There is a growing body of evidence in support of nonpharmacological approaches as alternatives to addressing NPS of AD to alleviate the need for psychiatric polypharmacy.¹² Although studies are necessary to determine whether MT results in a reducing polypharmacological use, MT has documented benefits for AD NPS.⁵

3. Music Therapy Is Conducted by Professionally Trained Therapists Who Can Avoid Music-Induced Harm

Although music is often considered a unidirectional health-promoting resource, music also has the potential to result in affective, behavioral, cognitive, identity, interpersonal, physical, and spiritual harm.¹³ Because music can be associated with traumatic events, music has the potential to reactivate trauma. As such, clinicians using MBIs need to formally assess what music to avoid, safely use music to protect service users from harm, and provide therapeutic space when service users are activated by music associated with traumatic events. In contrast to other MBIs, MT-BCs are uniquely qualified to meet the clinical objectives of people with AD and their caregivers while avoiding music-induced harm.¹³ For people working with vulnerable populations such as AD, expertise in music and avoiding harm is necessary.

4. Music Therapy Is Tailored to a Person's Intersectional Identities

MT is based on an individualized assessment wherein the practitioner learns about the service user's music preferences and experiences.⁴ In the initial therapeutic assessment, the MT-BC also ascertains the service user's intersectional identities and how these might interact with their motivations and goals for therapy. Knowledge regarding a person's identities and their motivations for MT treatment can result in a stronger therapeutic relationship and alliance, and can augment the likelihood of accomplishing clinical objectives.⁴

5. Music Therapy Is Accepted and Well-Tolerated by Patients and Their Caregivers

MT administered to both patients with AD and caregivers was a positive experience and helped caregivers relax.¹⁴ Most

participants described MT as a pleasant and enjoyable space where they could share and express feelings that they had not been able to express previously. MT was well-accepted by both patients with AD and caregivers and associated with a significant decrease in anxiety and depression.¹⁵ Patients stated, “Music made me feel better. I feel more relaxed” while caregivers reported significant decreases in physical and emotional burden.¹⁵ Both patients with AD and their caregivers showed a high level of acceptability for MT for treating AD NPS.¹⁶ To the best of the authors’ knowledge, no study has reported dissatisfaction or unacceptability of MT as a treatment intervention.

6. Music Therapy Is a Meaningful Experience Capable of Evoking Memories

MT-BCs use familiar music as a therapeutic medium to evoke positive memories and provide meaningful associations for patients.¹⁷ MT interventions can be enjoyable while addressing relevant clinical objectives and outcomes. Patients participating in MT do not need previous musical training and MT-BCs can structure sessions and opportunities for participation on the basis of each individual’s physical, cognitive, and communicative levels.¹⁸ When MT-BCs provide opportunities for individuals with dementia to have successful participation using familiar music, it is possible that they feel better about themselves, which affects their emotional well-being.¹⁸

7. Music Therapy Is a Unique and Interactive MBI

MT involves structured and supportive interactions between the MT-BC and the patient, which differentiates it from other MBIs. MT-BCs tailor the music and therapeutic processes to the patient’s specific needs, identities, preferences, and values to optimize patient engagement and orientation. The patient might play music instruments with the MT-BC, following simple to complex patterns to provide cognitive and physical stimulation.^{19,20} Other interactions might include the patients’ affective responses to music, song lyrics, and the MT-BC. As such, non-MT MBIs cannot address the patient’s needs and MT. Likely because of these major differences, MT can be more effective in improving the NPS of patients with dementia when compared with passive music listening in small clinical trials.²¹

8. Group Music Therapy Can Increase Access and Promote Social Interactions With Peers, Caregivers, and Staff

MT-BCs often provide individual MT sessions at private homes. Family members and caregivers participate in these sessions and experience meaningful interactions with their loved ones. MT-BCs can also provide group MT services within residential facilities. Regardless of the environment, MT can increase older adults’ verbalizations, conversations,

and interactions between individuals.²² People with dementia experienced a sense of social connectedness and community during MT.¹⁷ Furthermore, MT can increase medical compliance and positively affect staff-patient relationships.²³

9. Music Therapy Promotes Holistic Well-Being

MT-BCs use music to promote holistic well-being.²⁴ MT can support well-being by enhancing quality of life, maximizing well-being and potential, and increasing self-awareness. MT recipients stated that “I didn’t know that music could have such an impact on me.”¹⁵ Multidisciplinary health care teams have reported that MT is a complete approach to the patients’ well-being, which can balance medical treatments, and is particularly acceptable to antimicrobial patients.²⁵ MT can promote emotional well-being and quality of life and is recommended as a useful holistic intervention for decreasing agitation in individuals with AD.⁵

10. Music Therapy Can Be Delivered by Private Practitioners

MT-BCs often practice in clinical settings for people with AD including nursing homes, memory care, and hospice. Additionally, many people with AD live with caregivers. To better meet the needs of various communities, MT-BCs frequently work in private practice. Because these practitioners have diverse revenue streams, they may be ideal for part-time contract work in facilities for people with AD as well as in home living environments. Private practice MT-BCs can also provide music-teletherapy⁵ to meet the needs of people with AD who lack transportation or who may reside in areas with low concentrations of MT-BCs. MT can thus be an accessible low-cost psychosocial treatment both in care facilities and home environments,⁶ and private MT practitioners can work with service users and their caregivers to facilitate third-party reimbursement.

Conclusion

Although the MBI Toolkit in *Neurology* is a helpful resource for researchers, this study provides clinical context for MT as a specific MBI to help physicians make appropriate referrals for their patients with AD. MT is a nonpharmaceutical treatment that may effectively alleviate the wide range of NPS commonly associated with dementia. MT-BCs can provide individually tailored interventions to address the multifaceted challenges for individuals diagnosed with AD. We aim to provide neurologists specializing in AD care with an overview of MT and reasons why they should make MT referrals for their patients. We hope this study results in increased awareness and referrals for MT as an accessible, effective, and meaningful treatment for people with AD. Readers interested in locating MT-BCs can find them using the directory at the Certification Board for Music Therapists site.²⁶

TAKE-HOME POINTS

- Nonpharmacological interventions such as music-based interventions (MBIs) are well-tolerated, effective, and recommended as first-line treatments for neuropsychiatric symptoms of Alzheimer dementia (AD).
- This study expands beyond the research aspects of the 2023 *Neurology* release of the Music Based Intervention Toolkit for Brain Disorders of Aging.
- Music therapy is a clinically effective MBI that is conducted by board-certified music therapists (MT-BC) that can be tailored to the unique identities and needs of patient populations.
- Based on the literature, music therapy can be a meaningful, effective, and accessible psychosocial intervention for people with AD with no known adverse effects.
- We provide neurologists who care for patients with AD with 10 reasons to refer their patients to music therapy.

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Appendix (continued)

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