

TITLE PAGE

Title: Perceptions of Music Therapy for Older People among Healthcare Professionals

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Ethical Approval

Ethical Approval was provided by the St James/Tallaght Hospital Ethics Committee for this study.

ABSTRACT

Purpose of study: To investigate the perceptions of healthcare providers on music therapy and their recommendations on wider adoption in a hospital setting.

Design and methods: A qualitative exploratory study employing short semi structured interview using thematic analysis method of data analysis.

Intervention: A qualitative exploratory study, employing short semi structured interviews was conducted in March 2015 in an urban teaching hospital to explore healthcare providers attitudes towards and recommendations on music therapy. Convenience sampling was used for recruitment of hospital staff from a multidisciplinary geriatric unit. Only staff who had exposure, awareness, or participated in the hospital music therapy program were asked to partake in an in-depth qualitative interview.

Main findings: Themes emerging reflected a belief among hospital staff that music therapy was of benefit to patients and staff; perceptions of how a hospital music therapy program should be implemented and a desire for expansion of the music therapy programme throughout the hospital setting.

Principal Conclusions: Music therapy is of great importance to both patients and healthcare professionals, and thus more attention is warranted to better integrate and advance this program. This study is important because although numerous studies have examined music therapy from a patient health perspective, no report has analyzed the perceptions of healthcare providers on this intervention and their recommendations on further development of music therapy services.

MAIN TEXT, TABLES AND FIGURE

INTRODUCTION

Music therapy is defined as the use of music and its elements (sound, rhythm, melody and harmony) by a music therapist. This intervention is conducted to promote communication, relationships, learning, mobilization, expression, and other therapeutic objectives that meet the physical, social, communicative, emotional, intellectual, and spiritual needs of a patient.¹ Music therapy can be applied either individually or in a group setting. It is also differentiated from other music based programs such as using music during physiotherapy, speech therapy, or psychomotility sessions.²

Music therapy can be categorized into two approaches: active or receptive. In active music therapy, clients participate in singing, playing musical instruments, lyrical analysis, dancing, song writing, and improvisation.³⁻⁶ In receptive music therapy, participants listen to music but are not required to play or sing'. Both approaches involve music therapists and patients selecting music based on preference. This, in turn, helps the client respond to the intervention by expressing their feelings or memories that are aroused.⁷ Music therapy programs are often used in cognitively impaired or mentally incapacitated populations, such as individuals with dementia or psychotic symptoms. It is also used for terminally ill patients for arousal of positive emotions and increasing self-confidence.^{7, 8} Receptive music therapy is typically used for relaxation and reminiscence but may also be used as part of challenging psychoanalytical processes.⁹ In practice, music therapists often use both approaches to enhance patient outcomes.

The effectiveness of music therapy appears promising and there is a growing interest in using it as a stimulus for neuro-rehabilitation and neuropathy.^{10, 11} Schneider et al. showed that music therapy can improve speed, precision, and smoothness of fine and gross motor skills in stroke patients.^{12, 13} Auditory stimulation can also enhance gait ability, flexibility, and upper limb motor performance in patients with stroke.¹⁴⁻¹⁸ For patients with cognitive disorders such as Alzheimer's disease, several studies have found music therapy to encourage the participant's recall of autobiographical memory.¹⁹ Many reports have also indicated a beneficial effect of music intervention in reducing agitation and aggressive behaviours in individuals with dementia.²⁰⁻²⁶ Concerning schizophrenia and depression, several Cochrane reviews revealed an improvement in patient mental health after receiving music therapy.^{27, 28}

Music therapy is of particular interest to geriatricians for two reasons. In the first instance, many of the conditions in which music therapy has been studied, such as dementia and stroke, are age-related conditions which are commonly encountered in the practice of geriatric medicine. In addition, aesthetic deprivation has been found to be a significant issue for older people attending hospital services. Recent studies indicate that older patients in acute hospital experience lack of control over the aesthetic environment of hospital, noise pollution, reduction in access to normal cultural and leisure interests and a reduction in attendance at cultural events post hospital stay^{29, 30}. The role of music as it intersects with health (whether that is music therapy, music as part of medical humanities or environmental aesthetics) is an important aspect of health humanities, especially considering that music is one of the most popular art forms enjoyed by hospital patients and one of the most well researched within the medical literature³¹.

Although music therapy has been conducted for decades and investigated in many different patient populations throughout the world, to our knowledge, there are no studies that have examined the viewpoint and constructive feedback towards this intervention from a healthcare provider's perspective. The aim of this report was to conduct an exploration of the attitudes of a geriatric unit's multidisciplinary team regarding music interest, experience and understanding of music therapy, and recommendations for a hospital based music therapy program.

DESIGN AND METHOD

Study Design

A qualitative study involving the staff of a multidisciplinary geriatric medicine unit was conducted in March 2015. This methodology was employed to explore this relatively under researched area of music therapy and older age health care practice and to better explore the nuances related to the questions asked. The Research Ethics Board of the institution approved this study and all participants provided written informed consent.

Participants

Healthcare professionals who had exposure, awareness, or participated in the geriatric medical unit's music therapy program between March 2014 and March 2015 were included in this study. Recruitment was employed using convenience sampling from a cohort of geriatricians, nurses, nurse assistants, speech and language therapists, physiotherapists, and music therapists. Only staff who fulfilled the inclusion criteria were asked to participate in an in-depth qualitative interview.

Data Collection

Short semi structured interviews were conducted and data was analysed using thematic analysis method³². The phenomenon under investigation was music therapy and questions asked were designed to obtain information on the attitudes of the geriatric unit's multidisciplinary team regarding music interest, experience and understanding of music therapy, and recommendations for a hospital based music therapy program. A total of three questions were therefore asked: (1) "What are your musical interests?" This question can be understood to include any musical instruments the participant might have played or currently plays, and the genre(s) of music they listen to. The question aimed to indicate the level of staff interest in music and their personal experience of the benefit of music on their health and well-being. (2) "Describe music therapy and what you think about it?" and (3) "What would you want to see in a hospital music therapy program?" Emphasis was placed on not asking leading questions during the interview to obtain a more comprehensive understanding of the subject's perspective.

Interviews were arranged according to the requests of the participants and their personal convenience. All interviews were conducted by two research staff in a hospital setting. The interviews lasted between three and ten minutes, were audio recorded, and transcribed verbatim. The researchers also recorded hand written notes in a journal throughout the interviewing process. Saturation was gained when nothing new was added.

Data Analysis

Each interview was analyzed on several levels to create themes based on the content of the transcribed data. Thematic analysis is the most common form of analysis in qualitative research. Themes are identified through analysing the data to reveal data that is important to the description of a phenomenon and are associated to a specific research question. Thematic analysis is conducted by familiarising oneself with the data, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes, and producing the final report³². The first stages involved coding the interview text and organizing the codes into clusters. Codes were then grouped together and several emerging themes were identified. The emerging themes were then presented as a written description and tested for credibility by having one independent researcher review a sample of two interviews. Following this validation process, the final themes were presented.

RESULTS

Participant Characteristics

Of the fifty-two staff in the unit, eight participants met the inclusion criteria and completed the study. The cohort consisted of four geriatric physicians, two nurses, one nursing assistant, and one speech language pathologist. **See subject demographics and music interests as summarized in Table 1.**

Table 1. Participant Demographics, Music Interests, and Music Abilities

Characteristic	Number of Hospital Staff
Sex	

Male	4
Female	4
Music Genre(s) Predominantly Listened to	
Blues	1
Classical	3
Country	1
Gaelic/Irish	2
Jazz	1
Opera	2
Pop	3
Radio station	4
Instruments Played and Music Abilities	
Guitar	1
Piano	3

All staff in the team indicated a preference for some music and four (n=4, 50%) played a musical instrument. The results indicate a strong engagement in music in the team and the interviews explored interviewees own experience of the benefit of music. Anecdotal benefits were noted such as listening to music to relax (when driving home from work), to stimulate activity (at the gym) and for emotional expression (for example at funerals). *I did play Irish music growing up. I come from a*

very musical family, a traditional Irish music background. My earliest memories are musical with my family.... Less so now, its one of my later life ambitions to take up an instrument again. I listen to everything, I'm a radio station surfer (Participant 1).

Description of and thoughts on music therapy

The following themes are presented from the research question “Describe music therapy and what do you think about it?” In total four themes were captured (See **Table 2**).

Table 2. Themes Relating to Participant Thoughts on Music Therapy

Participant Profession	Participant Number				
		Music Therapy Helps Patients and Staff	Music Therapy is an Allied Healthcare Profession	Lack of Understanding on the Role of a Music Therapist	Music Therapy as means of Entertainment
Geriatrician	4	3	2	2	0
Nurse	2	2	0	0	2
Nurse Assistant	1	0	0	0	1
Speech Language Pathologist	1	1	1	0	0

Six members of the multidisciplinary geriatric team (n=6, 75%) described how music therapy had a beneficial impact on the patients and themselves. Staff mentioned that music therapy helped improve patient mood by providing them a medium to communicate and interact with their peers. Expanding patients social, cognitive,

psychological, physical, and emotional objectives were also stated as benefits enabled by music therapy. Healthcare providers felt they gained a better understanding and empathy towards patients by learning more about their interests, behaviors, and thoughts through this intervention. Language and memory stimulation, especially in patients with traumatic brain injury, stroke, or dementia, were described as another development catalyzed by music therapy. In addition to improving the patients' health and hospital experience, music therapy was noted by staff as a pleasant event in their daily schedule.

Music therapy is a very individualized, professional training ... to support people deeply who are compromised by language or memory issues through things like traumatic brain injury, stroke....aesthetic support but also rhythmic and sensory stimulation through activities and music fitted to the person. Music therapy has a diagnostic as well as a therapeutic element to it (Participant 2)

I don't know a lot about music therapy. But I've spent many years working with and looking after people with dementia and what's always incredible is how people with advanced dementia are still responsive to music, to both positive and negative stimuli. Even when they are not able to articulate or verbalise about anything else they can respond to music (Participant 3).

Themes regarding how a hospital music therapy program should be implemented

In total, three themes were generated in response to this question. **(See Table 3).**

Table 3. Participant Themes on how to Improve a Hospital Music Therapy Program

Participant Profession	Participant Number	Number of Participants whose comments related to this theme
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		Music Therapy Program Should be Expanded	Music Therapy Should be Better Integrated within the Multidisciplinary Healthcare Team	Educate the Staff about Music Therapy
Geriatrician	4	2	3	1
Nurse	2	2	0	0
Nurse Assistant	1	0	0	0
Speech Language Pathologist	1	1	1	0

Five of the eight (n= 11, 63%) staff interviewed felt that the hospital music therapy program needed to be expanded. This included hiring more music therapists to better accommodate patients, increasing the number of music therapy sessions per day, and creating a dedicated space for music therapy with proper acoustics and comfortable seating. A number of staff also suggested having music therapy programs implemented in other hospital departments such as pediatrics, psychiatry, and pre-and post-operative surgery.

What I'd like to see is a music therapist who is linked closely with the team, attending case conferences and multi-disciplinary team meetings. They need to be part of the team, train together and understand each other. Music therapy, like occupational therapy and social work, is not a standardized profession, the person on the team is important and their personal approach matters. I'd like to see music therapists as part of geriatric medicine, neurology, brain injury, psychiatric and palliative care teams. I want to see music therapy available in an interdisciplinary fashion to those who need it most (Participant 4)

I'd like to see more music therapy, every day would be nice. And I'd like to see all types of music being used, not just certain traditional such as classical or traditional. I also noticed that when the music therapist brings percussion instruments (drums and such like) it's good because that helps patients to become more involved in the music rather than just listening (Participant 5).

DISCUSSION

Music therapy has been studied mainly in psychiatric and mental health-related conditions in a clinical setting. To our knowledge, this is the first study to catalog the thoughts and perceptions of healthcare providers on music therapy. Moreover, it is the only report to include constructive feedback on how to implement a hospital based music therapy program from a multidisciplinary team who have experience with this intervention.

There was a general consensus amongst the healthcare staff that music therapy had a beneficial impact on the patient's mood, memory, communication, and social interaction. Musical stimuli have been shown to activate specific pathways in several areas of the brain associated with emotional behaviors. These include the cingulate and insular cortex, hypothalamus, hippocampus, amygdala, and prefrontal cortex.³³ It has also been shown that listening to music activates various regions of the brain involved in cognitive, sensorimotor, and emotional processing.³⁴ From a psychological perspective, the cognitive functions and autobiographical memory stimulated by music allows a patient to express feelings such as joy and relaxation which are often inhibited in cognitive and behavioral conditions.^{35, 36} This behavioral improvement was also demonstrated in Ledger and Baker's study where group music

therapy was found to promote interaction and feelings of belonging in neurologically impaired patients.⁸

Regarding the suggestion to expand the music therapy program throughout the hospital setting, many factors need to be considered. Lack of awareness of the benefits of music therapy and its cost-effectiveness may hinder expansion within hospital services. Although a hospital based cost-effectiveness study comparing music therapy to other healthcare programs could not be found, several reports have examined this assessment in nursing homes.^{37, 38} In a study conducted in Italy, the cost of a single music therapy session per patient was roughly €6.17.³⁷ Livingstone et al provided a similar cost of £4 for a patient to receive a music therapy session in their study.³⁸ Comparing these values with the £24 to £143 cost for sensory interventions, and £6 to £62 for training paid caregivers indicates that music therapy is a viable and financially feasible option.³⁸

Increasing the number of music therapy sessions from one each day to several was another recommendation that would require additional financial support. However, the length of each intervention should be taken into consideration. There is no standardized or recommended music therapy duration per session. It is also unknown how the duration of a music therapy session affects the efficacy of the intervention. In terms of expanding the intervention to other patient populations, it has been suggested that active music therapy for clients in palliative care or scheduled for surgery could have benefit. This is due to the group support system a music intervention can facilitate.³⁹

There are several limitations inherent in this study, which include the population of respondents being from a single acute hospital and small number of participants

involved. However, given the novelty of this report, it was difficult to rationalize a sample size calculation and expand the study beyond one initial setting. Nevertheless, our inclusion criteria ensured the data collected was reflective of the stakeholders involved with the current and future hospital music therapy program.

The sample size was very small and the interview length was short in this study. The small dataset was a limitation of this study. A longer, semi structured interview, with more participants, might have revealed additional themes and allowed for deeper understanding of the nuances of the benefits of music therapy in the health setting. However, this study is an example of conducting an effective study within the time constraints and pressure on staff of a busy acute hospital settings. Further research regarding the aesthetic experiences of clinical staff and their willingness to engage with arts for patients in hospital settings would be useful.

CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

In conclusion, this study serves as an important starting point for further research on how healthcare providers perceive music therapy and its implementation in a hospital setting. Most studies often examine the experience and recommendations of patients only, but this can create a bias toward individual acute needs and forego the lessons learned by those applying the therapy over a longer duration. Further research is required to obtain the perspectives of hospital staff from other healthcare institutions to help standardize and improve this program. Continued cost-effectiveness studies will also determine the feasibility of implementing recommendations. Our findings suggest that music therapy is of great interest to a variety of patients and healthcare professionals, and thus more attention is warranted to advance this program.

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