

**Title:** Exploring the Efficacy of Music in Palliative Care: a Scoping Review

## **Abstract**

### **Objectives**

There is an increasing recognition of the significance of music as a complementary therapy in palliative care. Limited studies exist on how music is used as a coping mechanism by palliative care patients. Therefore, the purpose of this scoping review was to explore the efficacy of music interventions for palliative care.

### **Methods**

We conducted a literature search between June and November 2019 in the Cumulative Index of Nursing and Allied Health Literature (CINAHL), British Nursing Index (BNI) and PubMed, which includes MEDLINE. The search identified 8 articles which met the inclusion and exclusion criteria.

### **Results**

Using thematic analysis, 6 themes were synthesised to show how music contributes to palliative care. The 6 themes include Pain management; Relaxation; Happiness and hope; Anxiety and depression management; Enhanced spirituality; and Improved quality of life. These themes reflect the psychological and emotional benefits palliative care patients derive from music therapies.

### **Significance of Results**

Music therapy can be an effective psychosocial approach when managing palliative symptoms through its therapeutic effects on physical, psychological, emotional and spiritual **wellbeing**.

**Key words:** Music, Palliative care, End of life care, Wellbeing, Pain management

## **Introduction**

Palliative care is aimed at relieving the pain, anxiety, and stress associated with terminal illnesses (Brugnoli et al., 2018). However, it does not treat the illness or ailment. Therefore, the goal of palliative care is to make patients feel as comfortable as possible as they approach the end of life. The utilisation of music therapy is increasing in palliative care as music therapists are gaining employment opportunities in hospices and as members of the multidisciplinary palliative care team in hospitals. There is a growing body of evidence that shows how music interventions have a positive contribution to health outcomes of palliative and dementia care patients (Bradt and Dileo, 2010). As patients and families gain access to a variety of therapies in hospice and palliative care, it is important to note that the most popularly chosen forms of complementary therapies currently are massage and music (Hilliard, 2004; Oneschuk et al., 2007).

Music therapy involves the systematic use of music within a therapeutic relationship. Its aims are restoring, maintaining and furthering emotional, physical and mental health (Wang and Agius, 2018). Music has the power to reach out to emotions, by-passing verbal expression (Balasubramanian et al., 2018). Lehman (2018) asserts that music helps to create a mood, offering music in cinematography as an illustration. The music in suspense movies is carefully planned to create an atmosphere of tension or foreboding. In the same vein, music can be used to create positive moods in palliative care patients. The therapeutic goals most frequently aimed at are comfort care, pain and symptom management, self-esteem, choice and control, stimulation, **normalisation**, coping strategies, social connection, family support and emotional expression (Daverson and Kennelly, 2000). It also supports symptom management, improvement in regulation of emotions, enhancement of communication and spiritual experiences (Warth et al., 2015)

The use of music within palliative care across the UK is still an emerging therapy (Daykin et al., 2006) compared to more established interventions like art therapy. It is, however, important to note that music therapy has been used in many health care settings across different patient groups, including dementia, neuro-rehabilitation, recovery from stroke and depression (Grau-Sanchez et al., 2018). The majority of music therapy provision has been funded externally by the NHS and in very few cases internally by hospice organisations themselves (McConnell and Porter, 2017). Most of the research incorporating music therapy has concentrated on pain management and wellbeing of the patients and their families. However, there is a lack of published literature reporting on the effectiveness of music as a coping strategy for palliative care patients. Therefore, this study sets out to explore the efficacy of music therapy in palliative care through a scoping review.

## **Methods**

We used Arksey and O'Malley 5 stages framework to guide our scoping review (Arksey and O'Malley, 2005). The 5 stages followed are as follows:

1. Identification of the research question
2. Identification of relevant studies
3. Selection of studies
4. Data abstraction (charting of the data)
5. Data analysis and reporting of results

The scoping review was conducted in June 2019 using the following specific subject databases: Cumulative Index of Nursing and Allied Health Literature (CINAHL), British Nursing Index (BNI) and PubMed, which includes MEDLINE. Attention was paid to key words during navigation to ensure consistency of searches in each database. Two limiters were applied in all

three databases. These included **the** use of English language and articles published in the last 10 years (2009-2019).

Truncation and Boolean logic used in all the databases were as follows: utilisation of music OR palliative OR care OR hospice OR quality AND life OR opinion OR attitude OR feeling OR pain AND management OR perspective OR spiritual OR patients OR intervention OR music therapy AND palliative care.

#### *Inclusion criteria*

Articles were considered if they met at least one of the outlined inclusion criteria:

- Articles exploring the use of music to enhance the quality of life among palliative care patients.
- Articles exploring palliative care and pain management interventions that **utilise** music.
- Articles exploring attitudes and perceptions towards **the** use of general interventions in palliative care, including music.
- Articles exploring knowledge around palliative care issues held by nurses and doctors which include the subject of music effect.

#### *Exclusion criteria*

Articles were excluded from the scoping review based on the following criteria:

- Articles exploring palliative care and pain management that does not include interventions that utilise music.
- Articles exploring attitudes and perceptions towards **the** use of general interventions in palliative care excluding music.
- Articles exploring general training of frontline workers in palliative care without focussing on music and its impact.
- Articles exploring knowledge around palliative care issues held by nurses and doctors which does not include the subject of music effect.

### *Study selection and data abstraction*

We identified a total of 1,037 literature from the database search. Two records were further identified through manual citation search. Following the removal of duplicates, we were left with 997 articles, which we considered for our scoping review. All the abstracts of the considered articles were screened, which resulted in the exclusion of 937 articles. We then identified 40 articles as relevant for use in the scoping review and were matched against the inclusion and exclusion criteria. A total of 8 articles were judged to meet the prescribed criteria after screening the full articles. The PRISMA diagram in Figure 1 outlines the searches undertaken and the subsequent results obtained.

**Figure 1: A PRISMA flowchart outlining the literature search**

### *Data Abstraction*

Data abstraction was undertaken by the first author and verified by the second author. Discrepancies in the results were resolved by the third author.

The majority of the articles were from Germany and the United States (n=3), 1 was from Canada and Northern Ireland. The majority of the articles were quantitative (n=5); 2 were qualitative, while the remaining 1 was mixed methods. Despite the methodological differences and geographical locations of the studies analysed, a common thread was noted and confirmed throughout the themes identified, as shown in Table 1.

**Table 1: Characteristics of studies in the scoping review (n=8)**

### *Qualitative Analysis*

Following data extraction, the findings were exported into Microsoft Excel for analysis. Due to the sensitive nature of the topic under consideration (Palliative care) and in keeping with the principles of scoping review, critical appraisal was not considered to eliminate articles from the review. Instead, all the 8 articles contributed to the final analysis of the results presented in this article. Thematic analysis was utilised to reflect the new combined findings of the eight articles considered (Braun and Clarke, 2006). Articles were colour coded on Microsoft Excel according to the related themes they contributed (Aveyard and Sharp, 2013). The colour coding used helped to visualise the contribution of each article, including its contribution to the themes. The data coding was reviewed over 1 month, leading to various changes and refinement of themes, which subsequently made the final themes of the article.

### **Results**

Most of the studies reported similar benefits of music in palliative care patients. The 6 recurring themes emanating from the studies included Pain management; Relaxation; Happiness and hope; Anxiety and depression management; Enhanced spirituality; and Improved quality of life. Table 2 below provides a summary analysis of the themes covered, including the contribution of each paper. The themes of relaxation and improved quality of life were more prominent and found in seven out of the eight articles.

**Table 2. Summary of themes from the data analysis**

### *Theme 1: Pain management*

A common theme running through most of the research articles used in this review (n=5) was that music is effective in managing pain in both children and adults. In all the 5 articles, music therapy was linked to the ability of patients to manage pain (Clark et al., 2014; Gallagher et al., 2018; Gutsell et al., 2013; Peng et al., 2019; Warth et al., 2015). One of the articles indicated that the private and relaxing ambience and instructions provided by **the music** therapist was sufficient in some cases to reduce pain in patients (Gutsell et al., 2013). Patients in 4 articles reported significant improvement in coping with pain following episodes of listening to music compared to groups, which had no access to music (Clark et al., 2014; Gallagher et al., 2018; Gutsell et al., 2013; Peng et al., 2019). Only 1 article reported that there was no significant difference in pain management between the therapy and control groups (Warth et al., 2015).

### *Theme 2: Relaxation*

Following the utilisation of music therapy patients with terminal illness felt comfort and were able to relax (Clark et al., 2014; Gallagher et al., 2018; Gutsell et al., 2013; Peng et al., 2019; Preissler et al., 2016; Teut et al., 2014; Warth et al., 2015). The use of music to enhance relaxation was a recurring theme in 7 articles, and it was shown to have far-reaching effects on patients. For instance, one article showed that patients were able to increase levels of interaction while exercising choice and control due to relaxation (Clark et al., 2014). Another article reported that the creation of a relaxing ambience through the use of music which consequently resulted in a significant reduction in pain (Gutsell et al., 2013).

### *Theme 3: Happiness and hope*

Palliative care interventions that included music resulted in a general feeling of happiness, hope and love among the research participants in 4 of the studies (Clark et al., 2014; Gallagher et

al., 2018; Peng et al., 2019; Teut et al., 2014). Peng et al. (2019) reported increased happiness amongst patients following the completion of a pre and post music intervention evaluation. Two articles reported feelings of hope and happiness for both patients and their families as a result of the music therapy (Peng et al., 2019; Teut et al., 2014).

#### *Theme 4: Anxiety and depression management*

Music was also found to reduce the level of anxiety and depression in 4 out of the 8 studies (Clark et al., 2014; Gallagher et al., 2018; Peng et al., 2019; Teut et al., 2014). Children managed to conceptualise a sense of self, following the use of a musical intervention, which subsequently led to a reduction of anxiety and depression (Clark et al., 2014). This made it possible for children living with terminal conditions to engage with activities, including dancing and manipulating instruments. The mixed-methods study also found that live music had a profound effect on the health and **wellbeing** of patients in palliative care as it embeds social interactions among musicians and patients (Peng et al., 2019). This interaction made patients calm and filled them with a sense of happiness. Furthermore, one article showed that music **could** reduce anxiety and depression levels by making patients and families feel more connected (Teut et al., 2014).

#### *Theme 5: Enhanced spirituality*

Some of the articles (n=3) exhibited the connection of music to spirituality (Clark et al., 2014; Peng et al., 2019; Preissler et al., 2016). The articles reported that patients thought that music therapy enhanced their spiritual awareness (Clark et al., 2014) or brought them closer to God (Peng et al., 2019).

#### *Theme 6: Improved quality of life*

In general, there was a consensus that music improved the quality of life among palliative patients. Nearly all the articles (n=7) considered in this literature review confirmed the efficacy of music in reducing pain and subsequently improving the quality of life (Clark et al., 2014;



Gallagher et al., 2018; Gutgsell et al., 2013; Peng et al., 2019; Porter et al., 2018; Teut et al., 2014; Warth et al., 2015). However, one of the articles did not think the improvement was significant (Warth et al., 2015). Another article did not show a significant improvement in quality of life following a music intervention (Porter et al., 2018). However, it concluded that it is feasible to assess the efficacy of music therapy for improving quality of life among a larger sample of palliative care patients (Porter et al., 2018).

## Discussion

This scoping review has demonstrated that music is not only effective for pain management in palliative care, but it can also improve the comfort and wellbeing of palliative care patients. Music in palliative care can improve the experiences of patients and families facing problems associated with terminal illness as it offers a useful adjunct to the overall objective of palliative care which is the prevention and relief of suffering and treatment of pain (Puntillo et al., 2014). More importantly, music is central to improved positive outcomes of any patient undergoing a managed terminal condition. This study also demonstrated that the use of music in palliative care settings has positive outcomes with regards to happiness, relaxation and general wellbeing of palliative care patients. The role of music as a creative complementary approach in palliative care is, therefore, to improve the quality of life of patients and their families by providing a natural form of relief and solace. Although there are cultural differences in the nature of music and how it is understood and enjoyed, we find that, within any given culture, music reaches virtually every person, in one way or another (Lehman, 2018).

Over the years, there has been a constant development of pain management medication, which has come with both relief and negative side-effects on the patient in palliative care. The availability of alternative non-invasive interventions with minimal side-effects like music has come with greater relief for both patients and service providers (Zucchella et al., 2018). For

patients, the side effects of music are minimal, and for service providers, music is a cost-effective and relatively easy intervention to utilise (Gutgsell et al., 2013; Warth et al., 2015). Pain is subjective, highly complicated to understand, and may manifest differently from patient to patient depending upon the physical state as well as the individual patient's psychological state (Bushnell et al., 2013). Furthermore, research suggests that pain can become resistant to conventional treatment measures if psychological and social issues are not adequately addressed (Turk and Gatchel, 2018).

A previous study which highlights the issue of non-physical pain through analysis of pain narratives using a hermeneutical-phenomenological approach indicated that the loss of relationships was associated with psychological pain in patients (Kugelmann, 2000). When one considers palliative care patients, there is already a sense of grieving for losses manifesting throughout the illness journey and imminent death. There is separation from loved ones, loss of shared enjoyment of life, and lost opportunities as a result of terminal illnesses. Our review has shown that music therapy can help both patients and families restore some of these losses by enhancing interactions and providing a space for shared emotions (Peng et al., 2019; Teut et al., 2014). The use of music in palliative also helps patients and families find closure to difficult episodes in their lives (Cadrin, 2006). Consequently, this can reduce psychological distress and pain perception leading to some form of happiness, hope and wellbeing.

The purpose of music therapy is not limited to the existential benefit to patients but also contributes to the wider social relationships with their friends and families. There is a notion that when music therapy is delivered to a group which include patients' families and staff, it can lower bereavement levels for families, patients and caregivers (O'Callaghan et al., 2013). Music can also soften and humanise the palliative care setting by adding life and atmosphere of happiness through dancing listening or singing along together. This may lift the mood of patients, families and staff leading to improved patient care including wellbeing (Peng et al.,

2019; Teut et al., 2014) as patients in palliative care experience a sense of isolation from holding onto feelings and issues perceived as hard to share with others. Staying in a restricted area because of a degenerative condition can also cause pain and fatigue in the affected individual (Tanaka et al., 2008). However, this study demonstrated that the use of music in palliative care settings has positive outcomes with regards to happiness, reducing anxiety levels and increasing relaxation for palliative care patients (Clark et al., 2014; Gallagher et al., 2018; Peng et al., 2019).

Another finding from this scoping review was the association of spirituality with music intervention. The term “spirituality” has constantly appeared in healing, including scripts on health and wellbeing since the early 1980s. However, sometimes it appears to be a confusing term (Chiu et al., 2004). In the context of public health and healthcare literature, the term incorporates a wide range of meanings departing from the idea of religion as normally assumed by many people (Fryback and Reinert, 1999). Post-White contends that spirituality is more about ‘... the search for meaning and existential purpose in life’ (Post-White, 1996 , p. 1572). Indeed, a common thread running through the literature on spirituality, health and palliative care is the search for meaning (Tanyi, 2002). Music therapy has been identified as one of the most important interventions used for the spiritual care of patients with advanced or critical life-threatening illnesses. This scoping review also highlighted music therapy’s unique contribution in addressing the spiritual needs of patients in palliative care settings (Clark et al., 2014; Peng et al., 2019; Preissler et al., 2016). The level of enduring, managed during palliative care, is believed to be influenced by finding meaning in one’s lived experiences, which may be facilitated by music therapy (Potvin et al., 2018).

Spiritual care training for staff working in palliative care can result in a more holistic approach to patient care, and this can, in turn, result in improved patient outcomes (Clark et al., 2014; Peng et al., 2019; Yang et al., 2017). Spiritual care can also help patients in palliative

care to talk through various aspects of their concerns, and that in itself is helpful for the patients' wellbeing (Yang et al., 2017). However, the effectiveness of this spiritual support depends also on patients' beliefs and experiences in life, including other supporting systems within their environment.

#### *Study strengths and limitations*

A key strength of this scoping review is the quality of articles included in the review. Half of the articles included in the review were RCT studies. Although only one researcher conducted the search for the literature used in this article, the study interpretations were strengthened by having two researchers abstract and discuss the themes and findings. Another strength is the diversity of the studies presented. The research articles used in this article were drawn from different countries, enhancing diversity, but this poses a limitation in terms of difficulty to generalise. In this article, a scoping review was conducted. However, it excluded grey literature, specialist opinion and policymakers' perspectives. Additional information from the excluded types of documents and expert sources would have enriched this article with a wealth of information.

#### *Recommendations*

Many music therapy researches carried out in palliative care have been aimed at reducing and managing pain in patients. However, there are many problems that can affect patients in palliative care. For example, little has been done in facilitating the discussion of sensitive or difficult conversations around managing everyday activities of the patients and post humus funeral arrangements (Paal, 2018). These issues, in many circumstances, have been deemed sensitive conversations and marginalised in the palliative discourse. It is therefore important to explore the use of music in opening these difficult conversations among patients, families and staff in a palliative care setting.

This scoping review has identified how some issues within palliative care settings, such as pain and anxiety, may be addressed or alleviated by the use of music as an intervention. Still, there are some other pertinent issues central to palliative care that need to be tested and addressed, potentially using music as an intervention. For example, the utilisation of music directly by frontline staff to discuss sensitive issues affecting patients, families and care staff in palliative care settings. This may open a new chapter in palliative care where interventions go beyond managing pain to include the facilitation of difficult dialogue among the above-mentioned social groups.

We also recommend that future studies focus on the effectiveness of music for specific health conditions in order to draw inferences or commonalities on how music affects palliative care across a range of illnesses.

## **Conclusion**

The use of music as an intervention in palliative care is increasingly being recognised worldwide and has the potential to address a wide range of needs among patients, care staff and families. This scoping review has identified some existing needs within palliative care that may potentially be addressed by music specifically through: Pain management; Relaxation; Happiness and hope; Anxiety and depression management; Enhanced spirituality; and Improved quality of life. Our review suggests that music therapy can be an effective psychosocial approach when managing palliative symptoms through its therapeutic effects on the physical, psychological, emotional and spiritual wellbeing of patients and their families.

## **Conflict of Interest**

The authors declare no potential conflict of interest with respect to the research, authorship and publication of this article.

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