

The Present and Future of Medical Music Therapy for Adults in the U.S.A.*

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Abstract

This article provides an overview of medical music therapy theory, practice, and research in the United States. The breadth and depth of treatment as well as clinical goals for those with a wide range of medical problems is described. Medical music therapy uses a range of music interventions. Differences between medical music therapy and other music practices in hospitals, e.g., music medicine are detailed. Results of systematic reviews published in the distinguished Cochrane Library are summarized. Recommendations for theory, practice, training, and research are provided as a means to advance medical music therapy in the future.

Keywords: *Music Therapy, Medical Music Therapy, United States, Music Intervention, Music Therapy Theory*

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It eventually happens to every one of us and everyone we love. People get sick, need medical tests, need medical treatment, need to be hospitalized, have accidents, etc. When illness happens, it can cause a crisis and a host of physical, psychological, cognitive, social, and spiritual challenges. Illness or the threat of illness calls upon most or all of the individual's resources for coping. Being sick implies change and adjustment, anxiety, fear, pain, loss, disempowerment, lowered self-esteem, and existential and spiritual questioning. Many things can help. Music is one of them. (Dileo, 1999:3)

Introduction

Definitions

According to Bruscia (2014), "Music therapy is a reflexive process wherein the therapist helps the client to optimize the client's health, using various facets of music experience and the relationships formed through them as the impetus for change." Music therapists are professionals who undergo rigorous academic and clinical training at undergraduate and/or graduate levels. In the U.S., music therapists also must pass a national examination and qualify for board-certification prior to practice. In some states of the U.S., music therapists also are licensed for practice.

Medical music therapy is a specialization within music therapy. I define medical music therapy as the use of music therapy for the prevention, treatment and continuing care of persons at medical risk or who have medical conditions.

Breadth of Practice

When examining the current status of medical music therapy, one is struck by the breadth of its clinical applications, and specifically the diverse range of medical problems among persons receiving music therapy. These medical problems may be viewed according to the medical specialties within which treatment is provided. Examples of these medical specialty areas are shown in figure 1, but this list is far from complete and continues to grow. From this table it can be seen that music therapists work within most medical specialty areas, but of course, in medical areas where patients have greater and more complex clinical needs, music therapy is more common. For example, music therapists are more often working with cancer patients than with those who are treated for ear problems. In recent years, because of developments in particular approaches to music therapy, there is a good deal of music therapy research and clinical activity with persons with acquired brain injury, for example. Palliative care is also a growing area for music therapy work. Within some medical areas, there is limited music therapy clinical activity but there may be research activity, such as radiology.

It is noted that the area of psychiatry is not included in this table, although there is a great deal of music therapy practice and research in this area. In a similar manner, gerontology is not included as a medical specialty, as persons with medical issues associated with aging are treated.

Anesthesiology/Pain Medicine	Neurology
Cardiology	Oncology
Critical Care	Orthopedics
Endocrinology	Otolaryngology
Gynecology/Obstetrics	Palliative Care
Immunology	Physical Medicine and Rehabilitation
Internal Medicine	Pulmonology
Nephrology	Radiology

Figure 1. Table of medical speciality areas. Within the various medical specialties. Dementia issues are categorized under neurology.

Stages of Treatment

There is research and/or clinical practice in music therapy in all stages of treatment within some of these specialties as follows: 1) in the prevention of an illness or maintenance of health (e.g., stress reduction, exercise enhancement); 2) in medical diagnostic procedures (e.g., cardiac catheterization, venipuncture); 3) in inpatient, intensive (critical care) and outpatient treatment (e.g., dialysis, mechanical ventilation, pre and post-surgery, radiation, chemotherapy); 4) in rehabilitation (cardiac, post-surgery, stroke, other brain injury, etc.); 5) in palliative care (for pain and quality of life); and in 6) in end-of-life care (hospice). Music therapy is found most often in inpatient, intensive and outpatient treatment, in rehabilitation, in palliative care and in end-of-life care. The areas of rehabilitation and end-of-life care are perhaps the most rapidly growing areas in practice.

Clinical Goals

Physiological or medical goals are often the focus of medical music therapy. These may include pain, reduction in blood pressure, heart rate, stress hormones, improvement of respiration, improvement in heart rate variability, etc. However, just as frequently, other clinical goals/outcomes are typically addressed in conjunction with or in lieu of physiological/medical goals. These include: psychological (anxiety, pain, mood, adjustment to illness, coping strategies, stress reduction), spiritual/existential issues (life's meaning, spiritual support, hope), social/familial (expression of feelings and needs, social support, relationship completion, communication), cognitive (sensory stimulation, reality orientation), quality of life and treatment compliance goals. In addition, music therapists work to improve patients' satisfaction with medical treatment and hospitalization.

An acknowledgement of the interrelationship among medical, psychosocial, cognitive, and spiritual factors may be a core aspect in music therapy assessment and goal-setting.

Music Therapy Methods

Music Therapy methods used with medical patients may be categorized as follows: 1) receptive methods; 2) recreative methods, 3) improvisational methods, and 4) creative methods (Bruscia, 2014).

In receptive methods, patients take in music provided by the therapist most often live. The music may be improvised by the therapist, for example, according to the patient's physiological or emotional state, or the therapist may play existing music and adapt this to the clinical state of the patient. For example, the therapist may alter the tempo, rhythm, timbre, harmony or melody of a song or piece of music according to the clinical goal. Pre-recorded music may be used by the therapist when it is not possible for the therapist to play this music, such as orchestral music. The music therapist may also direct or elicit the patient's imagery while listening to the music. Also, the therapist will typically process verbally the patient's reaction to the music.

Music for receptive methods may be selected by the patient or therapist. Typically, the patient's musical preferences are assessed and honored in selecting the music. The patient may have a variety of responses to the music that is heard, for example, through movement, through physiological responses, through an experience of emotion or connection to another. The patient may also recall memories stimulated by the music, for example memories that provide resources for coping with the medical illness.

Using recreative methods, the therapist engages the patient in singing or in playing or learning a musical instrument. The patient will typically perform preferred songs or music for emotional expression, as a distraction from a painful stimulus, or as a way to regulate and structure breathing (through singing or wind instruments). Lyrics of songs may help provide support to patients.

Improvisational methods involve patients creating music spontaneously on instruments or with the voice alone, with the therapist or with a group. Improvisation is often used to facilitate patients' self-expression of emotions, to stimulate imagery, and to develop personal insight. Patients typically choose the instrument they want to play (usually a simple percussion instrument), so skill in instrument playing is not a pre-requisite to using this method.

A common creative method used in music therapy is songwriting. The therapist assists the patient in creating new lyrics to a pre-existing melody, a new melody to existing lyrics or original music and lyrics. Songwriting is used for a variety of clinical goals, including self-expression, self-empowerment and sending personal messages to others, for example as a song legacy for family members by persons at the end of life.

Any of the methods above may also be combined with other types of art forms, for example, with drawing, movement, or drama.

In addition to these methods, there are also specific music therapy methods common to medical music therapy work. These include (to name a few): various song methods (Dileo, 2018), the Bonny Method of Guided Imagery and Music (Bruscia & Grocke, 2002), Analytic Music Therapy (Priestley, 1994), Creative Music Therapy (Robbins, 2004), Music Therapy Entrainment (Dileo & Bradt, 1997) and Neurologic Music Therapy (Thaut & Hoemberg, 2014).

Theoretical Foundations

Medical music therapists base their work on a range of theories (see figure 2) (Dileo, 2015). Many therapists subscribe to a biopsychosocial framework and then may use various theoretical orientations within this framework, such as psychodynamic, psychophysiological, humanistic, developmental, existential, cognitive-behavioral, etc. Most music therapists would identify their theoretical orientation as “eclectic” or “integrative,” adapting their orientation to the clinical goal identified. For example, music therapists may use a cognitive orientation to address issues of stress management and anxiety reduction, as cognitive methods are well suited to accomplishing these goals within a limited time period. A humanistic framework may be best suited for persons who need support in accessing and expressing feelings related to their illness or disability. Existential orientations are very appropriate for helping patient at the end of life come to terms with what their lives have meant and for preparing spiritually for their demise. Music therapists are trained to work flexibly and to move within various orientations to meet a range of patients’ needs.

Biopsychosocial	Psychophysiological
Humanistic	Transpersonal
Psychodynamic	Developmental
Aesthetic	Medical
Cognitive-Behavioral	Systems Theory

Figure 2. Table of examples of theoretical foundations informing medical music therapy practice (Dileo, 2015).

Levels of Practice

Medical music therapists work at basic and advanced levels of practice. Several authors have proposed levels of practice in music therapy and/or medical music therapy. For example, Bruscia (2014) has classified these levels as: 1) Augmentative, 2) Intensive and 3) Primary. Dileo (2012) has classified levels of practice in music therapy pain management as: 1) Distraction/Refocusing, 2) Supportive, 3) Cathartic/Expressive, 4) Existential and 5) Transformational. In addition, Dileo & Dneaster (2005) have classified levels of music therapy for hospice patients as follows: 1) Supportive, 2) Communicative/Expressive and 3) Transformative. (See figure 3)

Various factors may be used in categorizing levels of practice. Patient factors include: clinical needs, preferences regarding treatment and patient’s own goals. Therapist factors include: training and autonomy, theoretical orientation, knowledge and skills, and reflexivity (Bruscia, 214; Dileo, 2015). Process factors include: the roles of therapist, client and the music and the breadth and depth of treatment goals. Contextual factors include the relationship of music therapy to medical treatment (e.g., complementary, integrative, etc.) and the length of the treatment process (Bruscia, 214; Dileo, 2015). (See figure 4)

(Dileo & Dneaster, 2005) (End of Life)	(Bruscia, 2014)	(Wheeler, 1983)	(Dileo, 2012) (Pain)
1. Supportive	1. Augmentative	1. Supportive	1. Distraction/Refocusing
2. Communicative/Expressive	2. Intensive	2. Re-educative	2. Supportive
3. Transformative	3. Primary	3. Reconstructive	3. Cathartic/Expressive
			4. Existential
			5. Transformational

Figure 3. Table of examples of levels of practice in music therapy/medical music therapy.

Patient Factors	Therapist Factors	Process Factors	Contextual Factors
Clinical Needs Preferences Regarding Treatment Patient’s Own Goals	Training and autonomy of therapist Theoretical Orientation Knowledge (Medical, etc.), Skills Reflexivity (Bruscia,2014; Dileo, 2015)	Role of therapist, client, music Breadth/depth of treatment goals (As determined by therapist and client)	Relationship of music therapy to medical treatment (complementary, integrative, etc.) Length of Treatment Process (Bruscia, 2014; Dileo, 2015)

Figure 4. Table of factors used in determining level of practice.

Other Music Practices in Medical Settings

During the past 20 years, a number of other music practices for medical patients and medical settings have emerged. These music practices may be provided by medical professionals (music medicine) or by hospital musicians who may or may not have special training to do so and who may be volunteers or paid staff. In addition, there is a widespread self-help use of music by patients. There is little known research regarding the latter or the effects of hospital musicians on patients. However, there is a large literature on the practice of music medicine. These practices are described in Dileo (2013) and Dileo & Bradt (2010).

Music medicine may be distinguished from medical music therapy according to various criteria (Dileo, 1999). (see figure 5)

MUSIC THERAPY	MUSIC MEDICINE
Trained music therapist	Medical professional No specific music therapy training
Therapeutic process of assessment treatment and evaluation	No therapeutic process
Relationship through music	No relationship through music, although relationship may exist
Range of music experiences	Primarily music listening

Figure 5. Distinguishing features of music therapy and music medicine.

Research in Medical Music Therapy

There are hundreds of studies concerning the effects of music on various outcomes in medical patients. Music medicine comprises much of this literature, but there is an ever-growing number of studies on music therapy as well. Because music therapy is individually designed and implemented for the patient based on clinical needs and preferences and involves a therapeutic relationship, music therapy is much more difficult to study than music medicine; music medicine can use standardized stimuli without the issue of therapeutic relationship

At the same time, evidence-based practice has been an imperative in the field of medicine in the U.S.A. especially during the past ten years. It has become essential to determine that interventions in medicine are safe, effective and cost-effective. This need for evidence has inspired numerous publications of systematic reviews by music therapy authors both with and without meta-analyses in various journals and also in the prestigious Cochrane Library. A list of systematic reviews of Cochrane publications involving medical music therapy and/or music medicine is as follows:

- Music Interventions for Mechanically Ventilated Patients (Bradt & Dileo, 2014)
- Music Interventions for Improving Psychological and Physical Outcomes in Cancer Patients (Update in Progress)
- Music for Stress and Anxiety Reduction in Coronary Heart Disease Patients (Bradt, Dileo & Potvin, 2013)
- Music Interventions for Preoperative Anxiety (Bradt, Dileo, Shim, 2013)
- Music Interventions for Acquired Brain Injury (Magee, Clark, Tamplin, & Bradt, 2017)
- Music During Caesarean Section Under Regional Anaesthesia for Improving Maternal and Infant Outcomes (Laopaiboon, Lumbiganon, Martis, Vatanasapt, Somjaivong, 2009)
- Music for Insomnia in Adults (Jespersen, Koenig, Jennum, Vuust, 2015)
- Music Therapy for End-of-life Care (Bradt, Dileo, 2010)
- Music for Pain Relief (Cepeda, et al., 2013)
- Singing as an Adjunct Therapy for Children and Adults with Cystic Fibrosis (Irons, Petocz, Kenny & Chang 2019)
- Singing for Children and Adults with Bronchiectasis (Irons, Kenny, & Chang 2010)

What follows is a summary of some of the main results of the aforementioned Cochrane reviews according to outcome. Please note that the quality of evidence in most of these analyses was rated as low.

Heart Rate

Music may lower heart rate consistently or inconsistently (Bradt, Dileo & Potvin, 2013; Bradt & Dileo, 2014; Bradt, Dileo, Magill, Teague, 2016)

Respiratory Rate

Music may lower respiratory rate consistently or inconsistently (Bradt, Dileo & Potvin, 2013; Bradt, Dileo, Magill, Teague, 2016; Bradt & Dileo, 2014)

Systolic and Diastolic Blood Pressure

Music may have beneficial effects systolic blood pressure in cardiology (Bradt, Dileo & Potvin, 2013) and mechanically ventilated patients (Bradt & Dileo, 2014)

Music has a potentially small effect on systolic and diastolic blood pressure in cancer patients (Bradt, Dileo, Magill, Teague, 2016).

Anxiety

Music may have beneficial effects on anxiety in myocardial infarction patients (Bradt, Dileo & Potvin, 2013) mechanically ventilated patients (Bradt & Dileo, 2014) as well as in cancer patients (Bradt, Dileo, Magill, Teague, 2016).

Music listening may have a beneficial effect on pre-operative anxiety (Bradt, Dileo, Shim, 2013).

Pain

Music may have small to moderate effects on pain in cardiology patients (Bradt, Dileo & Potvin, 2013) and large effect on cancer patients (Bradt, Dileo, Magill, Teague, 2016).

Depression

Music may lower depression in cancer patients (Bradt, Dileo, Magill, Teague, 2016).

Distress

Music may reduce distress in cardiology patients (Bradt, Dileo & Potvin, 2013).

Quality of Life

Music therapy may improve quality of life in oncology patients (Bradt, Dileo, Magill, Teague, 2016) and possibly in terminally ill patients (Bradt, & Dileo, 2010)

Music interventions may improve QOL in patients with acquired brain injury (Magee, Clark, Tamplin, Bradt, 2017).

Gait

(Rhythmic auditory stimulation) may benefit general gait, gait velocity, stride length of the affected side and gait cadence (Magee, Clark, Tamplin, Bradt, 2017).

Sleep

There is a possible beneficial effect of music on sleep in cardiology patients (Bradt, Dileo & Potvin, 2013)

Medication Use

There is a possible reduction in analgesic and sedative medication in mechanically ventilated patients (Bradt & Dileo, 2014).

Communication Following Stroke

Music may improve communication, including naming of objects and speech repetition in persons with acquired brain injury (Magee, Clark, Tamplin, Bradt, 2017).

Fatigue

Music may cause a small to moderate improvement in fatigue in cancer patients (Bradt, Dileo, Magill, Teague, 2016).

Because the research in medical music therapy is broad and diverse and because there is an increasing number of meta-analyses and systematic reviews published within and outside of the Cochrane Library, the findings from published studies and reviews is extremely difficult to summarize in this brief article. However, the following very general observations can be made concerning this literature:

- 1). There are variable degrees of effectiveness or no effects at all reported for music therapy as an intervention with medical patients. When effects are found for music therapy, heterogeneous results typically exist.
- 2). Most if not all meta-analyses on the effects of medical music therapy point to the need for more studies and more rigorously designed studies.
- 3). Music medicine studies far outnumber music therapy studies. In addition, besides the Cochrane Library publications which attempt to do so, there are only a few meta-analyses that compare the effects of music therapy vs. music medicine (e.g., Dileo & Bradt, 2005; Lee, 2015).
- 4). Most music therapy studies suffer from small sample sizes, lack of follow-up/assessment of long-term effects, lack of attention to potentially significant moderator variables (e.g., culture, musical training, preference for coping), and insufficient attention to cost-effectiveness and safety, important components of evidence-based practice.
- 5). There is a dearth of research regarding the use of music therapy with some critical and widespread health problems.

Recommendations to Advance Medical Music Therapy in the Future

Theory

It would be important to identify if there is an overarching theory that might embrace the diversity of practice in medical music therapy. Might Biopsychosocial theory (Engel, 1979), Integral theory (Bruscia, 2014) or another integrative theory explain the multi-faceted effects of music therapy with medical patients and also function as a meta-theory that can subsume the current range of theories being used? It is essential also to consider theories (and their corresponding research) from the behavioral medicine literature, e.g., especially topics concerning pain, the relationship between personality & illness, and psychological factors that can contribute to or result from specific illnesses.

Research

The following topics/questions should be included in a research agenda for medical music therapy.

More Research. First and foremost, there needs to be more research in medical music therapy. Certainly, more randomized controlled trials are needed to support evidence in the field, but other types of research (qualitative, mixed methods, arts-based, etc.) are also needed to acquire an understanding of the patient's experience in music therapy, as well as the process of medical music therapy in various populations.

What's more, future research needs to be more rigorous in design and implementation. For example, quantitative research should be designed to minimize risk of bias and to include appropriate randomization methods, allocation concealment, blinding, etc.). Research results should be assessed in terms of clinical relevance and clinical significance. Moderator variables, such as gender, culture, musical experience, etc. should be actively assessed. Research questions should derive from current, relevant theory.

Research on How Music Therapy Works. Research should include studies of the biomarkers of its effects, the mechanisms of action involved and the active elements of music therapy.

Best Use of Music Therapy. In the future, researchers should examine the best utilization of music therapy for medical patients, i.e., how it can best be used to the most optimal benefits for patients. Related research questions may include: Are there points in the trajectory of illness at which music therapy can be most effective? Are there also effects of music therapy on the music therapist who delivers it? Does physiological entrainment occur between patient and music therapist?

Important Clinical Conditions. It is critical for future researchers to examine the effects of music therapy for salient clinical problems for which there is little research. These issues include: inflammatory processes, diabetes, heart disease (e.g., Dileo & Zanders, 2013), women's health, sleep disorders, medical trauma, and medical patients also having psychiatric or developmental challenges. It is also essential for music therapy researchers to establish research priorities according to these and other salient population health issues and governmental funding priorities.

Research Outcomes. A very wide range of outcomes has already been examined in music therapy research, including physiological, psychological, cognitive, social, behavioral and spiritual outcomes (Dileo & Bradt, 2005). However, future researchers should evaluate some specific topics. Thus far, there has been little research on the contraindications for music therapy, except for example, hearing issues, musicogenic epilepsy, or neurological conditions for which music could be over-stimulative. Although it's quite likely that contraindications for music therapy may be relatively rare, it is essential to identify clinical conditions that may be associated with adverse effects.

Long-term effects of music therapy have been rarely included in research, and it would be extremely important to estimate the longevity of various effects for the patient, for example on pain. Other examples may include the long-term effects of music therapy on the immune system, on illness-related depression, on physiological and biochemical outcomes, and mortality.

As suggested by recent Cochrane reviews, music therapy may affect outcomes that are not directly influenced by medical treatment. For example, music therapy may be an important intervention for influencing quality of life (Bradt, Dileo,

Magill, & Teague, 2016; Magee, Clark, Tamplin, Bradt, 2017).) for reducing disease- or treatment-related fatigue (Bradt, Dileo, Magill, & Teague, 2016) or improving patient sleep (Bradt, Dileo & Potvin, 2013). Similarly, can music therapy be effective in enhancing patient compliance with medical treatment, medical regimens or lifestyle alteration?

Of great significance is research on the cost-effectiveness of music therapy. Research on this topic is beginning, and in the future, it may be possible to demonstrate that music therapy may reduce the use of sedative and/or analgesic medication (with their corresponding side-effects), length of hospital stay, length of recovery, increased hospital satisfaction and perhaps reduction in staff time through increased patient cooperation during medical procedures. These are only examples of the possible ways that music therapy may reduce traditional medical expenditures.

Researchers will need to continue to develop music therapy assessments that may uncover aspects of the patient that cannot be detected through other assessments (e.g., neurological functioning). At the same time outcome measures that are both sensitive and relevant to the effects of music therapy are needed, such as a specific quality of life scale for music therapy.

Music therapy research should also assess overall well-being outcomes that are relevant to governmental health priorities, e.g., number of unhealthy days, self-perceived health status, social participations, etc.

Music Therapy as a Preventive Measure. There is little research to date regarding music therapy in the prevention of illness, but there are indeed possibilities for music therapy to assume this role in healthcare. For example, the effects of depression on health and recovery from illness are well known, and evidence is building regarding the use of music therapy to treat depression (Maratos, Crawford & Proctor, 2011). At the same time, music therapy may indeed serve to enhance social integration, a well-known health protective factor.

To accomplish the aforementioned goals, there will be a pressing need for governmental funding of music therapy research, e.g., for large RCT's, and large multi-site and international studies.

Training in Medical Music Therapy

Because of the complexity of practice as well as the breadth and depth of knowledge and skill required for competent practice, medical music therapy should be designated as an advanced practice. The American Music Therapy Association has implemented specific competency standards for entry and advanced levels of practice (AMTA, 2015 Training for medical music therapy will thus comprise an advanced degree, advanced specialty training and clinical experience beyond the entry level. Competencies for medical music therapy have been published (Dileo, 2015; Dileo & Loewy, 2005).

There is also a need to educate medical professionals regarding music therapy, and formal training programs (e.g., continuing medical education courses) need to be forthcoming. There is also a need for music therapists to develop and offer training programs for medical professionals who want to use or incorporate music in their practices, as well as musicians who are interested in performing in health-care settings.

Medical Music Therapy Practice

The following recommendations are made to address clinical and professional issues of music therapy practice in the future.

As mentioned previously, there are other types of music practices in medical settings offered by medical professionals and/or musicians. In the light of potential and ongoing confusion regarding the differences among these practices, it will be increasingly necessary to articulate to the medical community and to potential consumers music therapy's uses and benefits based on quantitative and qualitative evidence and how music therapy differs from other music practices. It is important to situate music therapy within the range of these practices and determine how music therapy is best used. For example, will a function of the music therapist include assessing patients to determine the type of music practice that is most appropriate for them? It will be important for music therapists to determine how to work most effectively with other practitioners to best meet the needs of the patient.

A focus should be on the development and testing of new and creative music therapy interventions for medical patients, fine-tuning existing music therapy interventions for medical patients, and translating research evidence into practice. There is a need to continue to expand the range of clinical applications of music therapy, populations served and strategies for illness prevention.

The current book containing case studies of medical music therapy will likely go a long way in addressing this last recommendation. Thus, it is hoped that these case studies will provide new and innovative applications of medical music therapy, its processes and its possibilities to stimulate continued and expanded clinical practice, theory building and provide a basis for future research.

Discussion & Conclusion

The Covid-19 situation around the world has brought a greater realization of the importance of music and music therapy for those who are ill and for those who care for them. In addition, the use of music to maintain emotional and physical health for those who have endured isolation and quarantine for so many months has shed great light on the significance of the role of music in human well-being.

This took many forms. Music in the intensive care unit for people with Covid-19 on ventilators helped maintain humanity and a sense of beauty in such a stressful situation. Individuals in lockdown sang from their balconies to communicate with others inviting them to sing and make music together. Medical staff used music to

deal with the traumas they were experiencing, to reduce stress, and for emotional strength to continue. The many stories of medical caregivers performing music and dancing together provided stories of resilience. Families in lockdown made music videos together with humorous songs they had created. They shared these through social media to help others know that creativity can mitigate the ravages of isolation. Music therapists were found providing music outside nursing home patients' rooms to stimulate hope and provide connection. Music therapists also found that technology allowed them to continue their important work with their clients and patients and to prevent them from further problems. Our research and recent experiences reinforce our beliefs that music is essential in our lives. Moreover, we have still not comprehended the extent of its benefits in our lives.

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