Exploring Music Therapy Methods in Pediatric Hospital Settings

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Music therapy is the use of musical interventions to treat the physical, cognitive, emotional, and social needs of people (American Music Therapy Association [AMTA]). Music therapists often work in pediatric medical settings. When working in these settings, there are a variety of techniques used. Many of these techniques fall into one of two categories: active (the patient is participating in the music) and receptive (the patient is not participating in the music). This study focuses on a sample of music therapists, the techniques they use, the structure of their sessions and challenges they face in pediatric medical settings.
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Table of Contents

Introduction 5

Method 12

Participants 12

Materials 12

Procedure 13

Results 13

Techniques 13

Session Structure 19

Challenges 25

Discussion 26

References 29

Appendix 32
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Introduction

Music therapy is becoming an important treatment option in several settings and populations. Despite this, many people in the general population still do not know what it is or how it can benefit a person’s health. In his book, *Defining Music Therapy*, Kenneth Bruscia (1998) discusses the idea that “music therapy is not a single, isolated discipline with clearly defined and unchanging boundaries” (p. 6). He goes on to talk about how the best way to define music therapy is to break it down and explain each term individually. He defines music as “the art of organizing sounds in time,” and says that, “therapy is traditionally defined in terms of its Greek root *therapeia* which means to attend, help, or treat” (Bruscia, 1998, pp. 6, 9). The American Music Therapy Association (AMTA) created the most commonly used definition of music therapy stating that, “music therapy is an established health profession in which music is used within a therapeutic relationship to address physical, emotional, cognitive, and social needs of individuals” (American Music Therapy Association [AMTA]).

Music therapy has existed as a therapeutic tool for longer than most people realize. Some of the first forms of music therapy were “ancient healing rituals including sound and music” (Wigram, Pedersen, & Bonde, 2002, p. 17). In 1789, an article titled “Music Physically Considered” was published in *Columbian Magazine*; this is the earliest documented reference to music as a therapeutic tool (AMTA). By the beginning of the 20th Century several music therapy organizations started appearing, including the National Society of Musical Therapeutics, the National Association for Music in Hospitals, and the National Foundation of Music Therapy (AMTA). The practice of music therapy became most common around the end of World War I, and then re-surfaced after World War II, when musicians would visit veterans in hospitals.
Having the musicians perform for the wounded proved to be so beneficial that hospital staff requested that musicians be permanently employed by the hospitals (AMTA).

By the 1940s, three scholars, Ira Altshuler, Willem van de Wall, and E. Thayer Gaston, were working towards making music therapy an organized clinical profession (AMTA). E. Thayer Gaston, also known as the “father of music therapy, [...] was instrumental in moving the profession forward in terms of an organizational and educational standpoint” (AMTA). Around this time, the first collegiate music therapy programs also started to appear at universities like Michigan State University, University of Kansas, Chicago Musical College, College of the Pacific, and Alverno College (AMTA). The next major advancement in the field was the creation of the National Association for Music Therapy (NAMT) and the American Association for Music Therapy (AAMT) (AMTA). In 1998, the NAMT and the AAMT merged to form the American Music Therapy Association.

Music therapy is used to address a variety of needs and, because of this, can be used with an assortment of populations. Some of these populations include, but are not limited to, Autism Spectrum Disorder (ASD), mental health conditions, Alzheimer’s disease, and medicine (AMTA). For example, music therapists working with people who have ASD are working to improve “social, communicative, motor/sensory, emotional, and academic/cognitive functioning” (AMTA). These services are typically provided in schools, homes, hospitals, private practices, or community spaces. Music therapy is also beneficial to those who have mental health conditions with the focus of the therapy being on improving communication and expression (AMTA). People with Alzheimer’s disease also benefit from music therapy, even if they have proven to be resistant to other treatment options (AMTA). After music therapy, these
patients experience improved mood, better memory recall, lower anxiety, increased attention, and enhanced social interaction (AMTA).

Music therapists not only work with a variety of diagnoses, but also work in several different settings including “medical hospitals, skilled and immediate care facilities, rehabilitation hospitals, adult day care centers, senior centers, hospices, psychiatric treatment centers, drug and alcohol programs, [and] schools” (AMTA). The focus of the treatment differs in each setting. For example, in a school, music therapy might be used to address concerns on a student’s Individualized Education Plan (IEP) including improving communication skills and physical coordination (AMTA). Music therapists working in a psychiatric facility may focus on problem solving skills, conflict resolution, and increased control over aspects of their life (AMTA). In a medical hospital, the therapist might be attempting to reduce stress, encourage sleep, or decrease pain (AMTA).

The medical uses for music therapy have grown exponentially. This growth is most evident in pediatric units where music therapy is used to great effect (Bradt, 2013, p. 3). Typically, therapists who work in pediatric settings see patients anywhere from newborn babies up through 18 year olds. Occasionally, patients will continue being seen through 21 years of age if the physicians or other members of the care team have been following their progress for a long period of time. Some of the most common populations receiving music therapy in an inpatient hospital setting are “premature infants, full-term hospitalized newborns, pediatric intensive care, surgery and procedural support, burn care, cancer, palliative care and end-of-life care, brain injuries and rehabilitation, respiratory care, medically fragile children in low awareness states, and general inpatient care” (Bradt, 2013, p.3). When being treated in a hospital setting, a patient is not only receiving music therapy, but also being treated by a care team that may include
doctors, nurses, speech therapists, physical therapists, and many others. This makes the work incredibly interdisciplinary (Wigram et al., 2002). In this setting, music therapists often “find that their approach and treatment objectives are directed towards improving the general health of the patient, working with specific pathological problems and disorders, and maintaining quality of life and stability in the more chronic population” (Wigram et al., 2002, p. 147).

Standley and Whipple (2003) conducted a meta-analysis of several studies on the effectiveness of music therapy in pediatric settings. The twenty-nine studies they reviewed were divided into the following three categories: noninvasive procedural, minor invasive procedural, and major invasive procedural. From their evaluation, they found that patients who were undergoing major and noninvasive procedures benefited more from the music therapy than those who were admitted for a minor procedure (Standley & Whipple, 2003). Some of these benefits include lowered pain perception, minimized reaction to pain (crying), lowered anxiety, and less instances of depression. They also found that live music was more beneficial than recorded music for all the participants in the study. This is because a therapist can adapt the music as the situation changes. It did not, however, matter who chose the music; the results were similar when the music was chosen by the therapist, patient, or other member of the medical team (Standley & Whipple, 2003). Finally, patients who were actively participating in the music showed more positive results than those submissively listening (Standley & Whipple, 2003). Overall, the study showed more positive results for music than for no music in the pediatric medical setting (Standley & Whipple, 2003).

One of the major benefits of music therapy in the hospital setting is the reduction in anxiety it provides. Music therapy sessions stimulate the child physically and mentally; this becomes “an important element in coping with stress and contributes to the child’s successful
adaptation and psychological growth” (McDonnell, 1983, p. 29). Sessions with a music therapist also help a child regain feelings of control, something that is often lost when in hospital care (McDonnell, 1983). McDonnell (1983) created a series of case examples that portray these aspects of music therapy in the hospital. The first is of a young boy receiving music therapy support post-operatively for pain and depression. The goals for his sessions were to reduce anxiety, decrease pain perception and provide a positive outlet for his anger. The therapist and the patient accomplished these goals through music playing, music listening, and music games. After eight therapy sessions, his anxiety was reduced and he was better adapted to the hospital environment (McDonnell, 1983). One of the other examples is of an adolescent girl who was temporarily paralyzed. Her recovery was slow and painful, but the music therapy gave her an outlet to express how she was dealing with the illness (McDonnel, 1983). Music therapy in the hospital “reduces feelings of helplessness and increases resiliency to cope with a stressful environment” (McDonnel, 1983, p. 32). If these anxieties are not addressed and children are not given proper coping strategies it could lead to “lasting developmental deficits or emotional scars” (Blumberg, 1978 as cited by McDonnel, 1983, p. 32).

Feeling negatively about health status can have a detrimental impact on a child’s prognosis (Hendon & Bohon, 2007). Concerns about this negative impact encouraged Hendon and Bohon (2007) to perform a study exploring the effect of play and music therapy on hospitalized children’s moods. The researchers hypothesized that music therapy would put the children in a better mood than play therapy. Sixty inpatients at a pediatric trauma hospital ranging from age 13 months to 12 years participated in this study. Half of the patients were assigned to a music therapy condition and the other half were assigned to the play therapy condition (Hendon & Bohon, 2007). They could play by themselves or with a volunteer and the
Music therapy methods

Play therapy space contained activities such as reading, arts and crafts, imaginative play, puzzles, Legos and play dough. There were between one and 11 children in the playroom at a time (Hendon & Bohon, 2007). The music therapy condition involved choice of instrument (including maracas, drums, bells, or shakers) and the therapist playing guitar and facilitating songs. There were between 6 and thirteen children in the room at a time (Hendon & Bohon, 2007). The results of the study supported the researcher’s hypothesis: music therapy had a greater impact on mood than play therapy (Hendon & Bohon, 2007). These results imply that implementing music therapy in more hospitals may benefit the children’s moods and health outcomes.

Another study was done to determine the effectiveness of music therapy on pain management in pediatric burn patients (Whitehead-Pleaux, Zebrowski, Baryza, & Sheridan, 2007). The researchers hypothesized that patients receiving music therapy during a procedure will have less anxiety, they will report less experienced pain, they will experience less behavioral distress, and their heart rate and blood oxygen concentration will remain at base line during procedures (Whitehead-Pleaux et al., 2007). Nine patients between ages 7 and 16 participated in this study and were treated using patient preferred music and improvised melody. The patients were encouraged to sing along to the music; if they were unable to sing along, they were asked to actively listen to the music (Whitehead-Pleaux et al., 2007). The results did not support the first two hypotheses, but did support the third: actively participating in the music would be more beneficial to the patient than not participating (Whitehead-Pleaux et al., 2007). These results might lead music therapists to emphasize the use of active therapy techniques more than the use of receptive therapy techniques.

A similar study showed different results when it comes to procedural distress and anxiety and perception of pain. Pfaff, Smith, and Gowan (1989) conducted a study looking at music
therapy’s effect on distress during bone marrow aspirations. Bone marrow aspirations are a procedure in which a needle is inserted into either the pelvic bone or the breast bone to remove marrow from the center of the bone (Bone marrow aspiration, n.d.). Six children, between the ages of 7 and 17, participated in this research and had to agree not to receive any form of sedation during their procedure, making music therapy the only treatment they received. Anticipatory and experienced fear and pain were measured using the Faces Scale for Fear and the Faces Scale for Pain (Katz, Kellerman, & Siegel, 1982 as cited by Pfaff et al., 1989). They also used the Observational Scale of Behavioral Distress (OSBD) to measure the children’s external signs of distress (Jay & Elliot, 1986 as cited by Pfaff et al., 1989). Patients participated in both a non-music therapy procedure and a music therapy procedure. The self-report tests showed significant reduction in anticipatory and experienced fear and experienced pain (Pfaff et al., 1989). Unlike the previous study, this research shows that music therapy can be beneficial in anxiety and pain reduction during stressful and painful medical procedures.

These studies show that music therapy benefits hospitalized children in multiple ways. They also show that patient participation in the music has more benefit than when the patient does not participate. Music therapy can reduce anxiety surrounding procedures and hospitalization in general and can decrease the patient’s perception of their pain. This is important because high stress and anxiety can affect healing. These studies show that music therapy could help a child to recover faster, allowing them to be released from the hospital sooner.

Due to the interdisciplinary nature of music therapy and variability of conditions treated by music therapists there are many techniques used. Most often these techniques can be divided into one of two categories: receptive and active. Bruscia (1998) defines receptive techniques as
experiences where “the client listens to music and responds to the experience silently, verbally, or in another modality” (p. 120). Receptive techniques can also be used with infants or patients who are at a low level of consciousness (Bradt, 2013). Active music therapy is the use of instruments and musical activities to “engage children in nontargeting, developmentally appropriate activities” (Jarred, 2003, p. 149).

The purpose of this study is to examine the variety of techniques used by music therapists in pediatric medical settings to gain an understanding of its uses in this setting. The study determines common themes within the techniques used by a sample of pediatric music therapists, the structure of the therapeutic sessions, and the challenges therapist face in this setting.

**Method**

**Participants**

Six, female, board certified music therapists from across the United States participated in this study. The participants were recruited through professional connections and through the American Music Therapy Association online directory. Individuals had to be working in an inpatient pediatric medical setting to participate in the study. Three of the therapist work in three different freestanding, inpatient children’s hospitals and one works in a non-freestanding, inpatient children’s hospital. The other two therapists work in specialty, inpatient children’s hospitals: a freestanding, level 1 trauma center and a long-term care center.

**Materials**

**Interview.** An interview consisting of 20 questions was developed for the purpose of this study. The interview contained questions about their work place, the therapy sessions, the patients they work with, and the techniques they use when working in the hospital setting (see Appendix A). The interview guide was developed based on information found in the literature
review to give more insights about the literature and goals. The telephone interviews lasted between 45 minutes and one hour.

**Procedure**

Participants were found using professional contacts and the online directory on the American Music Therapy Association website. Potential participants were e-mailed a description of the project and a consent form for participation. They were also asked to consent to an audio recording of the interview. After receiving e-mailed consent from participants, 45 minute to one hour interviews were scheduled. Upon completion of the interviews, each audio recording was transcribed verbatim.

After transcribing the interviews, open coding was used to ascertain important topics within the data. The next step was axial coding to find specific information and detect connections within the broad topics that were determined during open coding. The final step in the analysis stage was memo writing to begin organizing the data and establishing the results (Corbin & Strauss, 2008). The following codes were developed from the data: techniques used (receptive and active), session structure (referrals, sessions, types of music used, therapeutic goals, and therapeutic tools), and challenges faced.

**Results**

**Techniques**

**Receptive.** The most commonly mentioned receptive technique is the idea of entrainment; it was discussed by five out of the six therapists interviewed. Entrainment is when the therapist is “entraining the rhythm of what [they’re] playing to the pulse [...] of either the heart rate or respiratory rate. So, if it’s a fast respiratory rate [they’re] entraining with the respiratory rate and then, slowly, [they] bring the tempo down and then the respiratory rate
comes down with the tempo” (Participant 5). Tempo, in music, is defined as the speed the music is played at. Entrainment is often used with patients who are being treated for breathing or heart conditions, but can also be used when a patient is agitated to bring them to a calmer state. For example, participant 1 talked about a session she had with an agitated infant. She was so agitated that she had not slept all day. The baby was making strained and stressed vocalizations and the therapist began to imitate the sounds she was making. As the infant became more responsive towards the therapist, she started to slowly alter the sounds she was making until they resembled the melody of a lullaby. Using the infant’s own sounds, the therapist was able to calm and soothe her and was eventually able to get her to sleep.

Another technique that participants mentioned often is music listening. This can be used in many different situations and can be presented in many different forms. It is most commonly presented as live music played by the therapist, but can also consist of pre-recorded music. When music listening is done through pre-recorded music, the patient and the therapist will work together to create a playlist of music that both appeals to the patient and matches what treatment need is being addressed at the time. The music can be found using the patient’s personal playlist or from online streaming sites such as Spotify or YouTube.

One of the most common ways music listening is used is to enhance the environment. Many times, music is meant “to be a normal activity for kids because a hospital is not a normal environment for a child; so just working on making this a not all negative space, have some positive stimulation, some positive engagement where they can be a kid” (Participant 4). Providing music allows the child to connect to a stimulus that is more familiar than much of their current surroundings. Music listening can also be used to help a patient sleep. Trouble sleeping can be caused by the unfamiliarity of the setting or by the excess noise that is often present in a
hospital (i.e. monitors beeping, staff in the halls or coming and going from the patient’s room). Playing music replaces these disruptive noises with more calming sounds, allowing the patient to drift off to sleep.

Another use for music listening is increasing interactions between the patient and their family members. Participant 5 experienced this while working with an agitated baby and her mother. When the therapist came to the room for the session the mother was sitting in a chair holding her daughter but was not interacting with her beyond that. Participant 5 sat next to them and the mom told her that she was not going to participate in the session. As they got farther into the session, the mom became more involved, first by humming along and then by singing along. When her mom started singing, the baby calmed down and eventually fell asleep. The patient not only benefited from the music, but also from her mother interacting with her.

A third use for music listening is procedural support. Many treatments and conditions involve procedures that could be considered difficult for a young child and not all of them include an anesthetic. Music gives the patients a different focus for their attention, making the procedure easier. Participant 2 gave an example of this from when she worked with a young girl who had been in an accident. This patient had a temporary tracheotomy tube placed while she was in the hospital. A tracheotomy tube is placed in the throat to help a patient breathe. The therapist was asked to come up to the patient’s room while they put on a speaking valve that would allow the patient to talk with the tracheotomy tube. She played music while the speaking valve was being placed. After placement, the patient was asked to try and wear the speaking valve for at least five minutes, then they could take it off and she would try it again later. Participant 2 asked the patient to sing along to the song she was playing as a way of distracting her from the speaking valve. The patient was able to keep the valve on almost 45 minutes
because the music took her attention off the procedure.

Music therapy is also used for environment enhancement in an end-of-life care session. End-of-life care sessions are when music therapists are called in to play music for a child, and their family, as the child is passing away. This session could involve finishing legacy projects or it could simply involve the therapist playing at the child’s bedside. The family often asks the therapist to play their child’s favorite song so they can hear it one last time. These sessions could involve the therapist being with the patient for the entire day depending on the situation.

Occasionally, music listening has active elements that might involve asking a patient to use guided imagery or progressive muscle relaxation. Guided imagery is the use of words to invoke specific images in a patient’s imagination and, when used with music therapy, it enhances the relaxation experience (Wigram, 2002). Progressive muscle relaxation is a two-step process where the patient begins by tensing specific muscles in their body and then releasing the tension, paying particular attention to how the release feels (Mayo Clinic Staff, 2017). Participant 4 uses this with older patients. This allows patients who can’t be physically active to have some level of involvement in the therapy session.

**Active.** An active technique that was mentioned by all six participants is music making and singing. This involves the patient playing on an instrument or singing music. Music making can be facilitated and initiated by the therapist or the patient can do it individually with the therapist watching and providing guidance. For example, when music making is initiated by the therapist, both the therapist and the patient are playing instruments and the therapist is influencing the direction the music will go in order to achieve a specific therapeutic goal. If the patient is in control and the therapist is only providing guidance, the patient will be doing the majority of the music making with the therapist accompanying them softly. Music making can
also be executed in the form of instrumental instruction where the therapist is teaching a patient how to play a particular instrument. Finally, music singing can be used as a supplement to speech therapy. The music therapist can ask the patient to sing music that works on a specific sound or element of speech production that the speech language pathologist has been having the patient work on. For example, the music therapist might choose music that helps the patient work on vowel approximation, G sounds, D sounds, or keeping the tongue at the top of the palette, or the roof of their mouth (Participant 3).

Another active technique the participants mentioned is lyric analysis. This happens after music listening and involves the therapist and patient discussing why the song is meaningful and what the lyrics mean to them. This is used to help a patient deal with the emotions they may be feeling surrounding their hospitalization. Participant 2 discussed how often emotional issues will arise while working on another aspect of the patient’s treatment. Music as the treatment medium allows for an easy change between one treatment need to another. For example, the therapist and patient may be working on speech production, but the patient becomes frustrated so they temporarily move on to lyric analysis to allow the patient to deal with their frustration more constructively.

Song writing is another technique that addresses the emotional struggles a patient might be facing. When using this technique, the therapist encourages the patient to write lyrics about their experience in the hospital and set it to music that they feel matches the theme and style of the lyrics they wrote. The therapist will provide guidance if necessary. If the equipment is available, the patient may have the opportunity to record the music they wrote before leaving the hospital. Participant 2 talked about a teenage girl who was at the hospital for transplant surgery. While staying in the hospital she wrote and recorded four original songs about her experiences
with the surgery and the hospitalization. Before being released from the hospital “she put on a performance for her doctors and nurses and other staff to express to them her journey” (Participant 2). Writing the music was a way of dealing with her current situation and it gave her a way to express to other people the impact this experience had on her.

If the patient is being seen for end-of-life care, the songs that they write and record might be part of a legacy project for the patient’s family to take home after the child passes away. This legacy project can also include the family members. The therapist encourages the family to participate in song writing and recording as a cathartic release for the trauma they are experiencing. After the patient has passed away, the music that was created is sent home with their family. This is an aspect of music therapy that Participant 2 has focused on throughout her career and feels that it is “one of the most profound services that [they] offer families” (Participant 2).

A final active technique that is used often is movement with music. This can be simply the movement the child makes as they play the instrument or it can be coordinated movements that the therapist asks the patient to practice during the therapy session. Movement with music is often used to accompany physical or occupational therapy. Physical therapy focuses on rehabilitation of gross motor skills whereas occupational therapy focuses on fine motor skills. To give an example of this technique, participant 3 discussed a teenage boy who is almost entirely paralyzed. While working with the patient and his occupational therapist, she noticed that his hands were positioned so that he could hold an egg shaker. She began to play a song and asked him to try and shake the instrument when she said the word “shake” in the song. When the song first began, he had a difficult time with the instrument. As they got further into the song he
developed more control over his hand and could shake the instrument each time the therapist said “shake” (Participant 3).

Session Structure

**Referrals.** The method in which referrals are received differs depending on the hospital and, even within each hospital, there is not one standard referral process. The most common form of referrals comes through the hospital’s electronic medical record system. This is used often because it allows every member of the patient’s care team to have access to the referral and the notes from the therapy sessions that follow. The second most commonly used referral method is by phone or pager. This is convenient for referrals that need immediate response such as help with a procedure or for a session for a patient who is dying. The other two types of referrals that were mentioned, but are not used as often are verbal referrals and family or patient referrals. Verbal referrals are not used often because a therapist could forget that they received a referral during their day. Family or patient referrals are when the patient, or the family of the patient, request music therapy for themselves because they feel that they would benefit from it. This was not discussed as much by the participants because not all hospitals allow this type of referral. Referrals can be submitted by any member of the patient’s care team including nurses, social workers, physical therapists, occupational therapists, speech language pathologists, and doctors.

Two of the participants discussed funding for the music therapy programs at their hospitals. The program at participant 2’s hospital is funded by the hospital foundation. This foundation covers the cost of the services provided by the therapists. It also has been able to provide the therapists with a music therapy room in the hospital and all the equipment they use. Music therapy at the hospital that participant 3 works at is partially funded by an activity fund.
This fund covers the cost of group therapy sessions, but not individual sessions. The funding for individual sessions is not clear, but it most likely comes from caregivers paying out of pocket.

**Sessions.** Sessions are, for the most part, performed at the patient’s bedside in their hospital room. Participant 2 has access to a music therapy room where sessions are conducted occasionally and participant 3 uses an additional space in the hospital for group work. The length of sessions varies quite a bit. The therapist can be with a patient for as few as 5-10 minutes or for as long as a few hours. This time variance is dependent upon how the patient is feeling during the session, what the patient’s schedule for the rest of the day is, or what else might be going on at the time of the music therapy (physical, occupational, or speech therapy session, procedure, or end-of-life session). The number of music therapy sessions a patient receives is based on how long they are in the hospital for, how many music therapist work in that hospital, and how many music therapy patients are admitted at one time. Some patients may only experience one therapy session during their stay while others might have one or two sessions a week for the entire duration of their admittance.

**Types of music used.** Music therapists often begin and end sessions using a contact song; also referred to as “hello” and “goodbye” songs. Music therapist use “hello” songs to introduce music into the environment. For example, if they are meeting a patient for the first time, they use the “hello” songs to introduce themselves to the patient and to let the patient and their family members introduce themselves to the therapist. Many therapists that use “hello” songs also use “goodbye” songs. These songs help to reintroduce the patient to the non-music setting and help them transition back into the rest of their day. If the therapy session was high energy, “goodbye” songs can also be used to bring the energy of the room back to a normal level.
Another one of the most frequently mentioned musical techniques is patient preferred music. This means that the therapist uses music that the patient is connected to or enjoys in the therapy sessions. The therapist adapts the patient’s preferred music to meet the treatment needs of that specific session. For example, participant 1 talked about a patient whose heart rate was extremely elevated when she saw him; because of this, it would not have been beneficial for her to play a fast song. She took a song that the patient liked and played it at a slower tempo and in a more soothing manner so that she was “able to use a song that the patient really liked, but in a way that was not contraindicated to what his treatment needs needed to be” (Participant 1).

Participant 2 also talked about using patient preferred music. She feels this is particularly important with teenagers because they often already have a strong connection with music. She discusses the idea that by listening to their music you are listening to and understanding them. When working with patients who are unable to express their preferences, the therapist will ask the family member for suggestions or will play children’s songs that most kids would have been exposed to at some point in their life.

Additionally, another type of music often mentioned is improvisation. This is when the therapist uses their knowledge of music theory and composition to create a song on the spot, while they are in the session with the patient. It is used often because it allows the therapist to “meet everyone where they’re at and increase engagement levels” (Participant 3). Improvisation is an important technique because it allows the therapist to follow the lead of the patient during the session and it helps the therapist to adapt the music as the treatment needs change during the session. A technique that goes along with improvisation is imitation. This can be demonstrated through the patient, if the therapist is purposely trying to get the patient to mimic the music they are making, or it can be demonstrated through the therapist, if they want to use the sounds or
movements the patient is already producing as part of the therapy session. Participant 5 feels that improvisation has a wide interpretation because it can involve something as simple as what instrument a patient chooses to play or how they choose to play it. She uses improvisation with young children when she presents them with an instrument and, “rather than [her] playing it first, [she’ll] see how the child chooses to play it first” (Participant 5). After gaining a feel for what direction the patient is taking the music, she will improvise on her own instrument to match them.

**Therapeutic goals.** When working in a pediatric hospital setting, the therapists often have many therapeutic goals. Each of the participants talked about treatment needs being “in the moment.” Many patients in hospitals have rapidly changing conditions so music therapists in this setting must constantly evaluate the state of the patient and adapt the goals they are working on. The overarching goal is to “get [the patient] into a better clinical, therapeutic space than they were before [the therapist] arrived” (Participant 1). The types of goals the therapists are working on can be broken down into physiological goals, physical goals, and psychological goals.

**Physiological goals.** Physiological refers to internal bodily functions. From the perspective of a therapy session, physiological goals are the responses the therapist is attempting to elicit from the patient through musical interventions. One of the most prevalent physiological goals for music therapists is “non-pharmacological management of pain” (Participant 1). This means reducing the patient’s pain level, or their perception of pain, without having to give them medication. Two other important goals involve keeping the patient’s oxygen level and heart rate at a healthy level. These are observed using the monitor that the patient is connected to in the hospital room.
**Physical goals.** The physical goals are often created in conjunction with the patient’s physical therapist, occupational therapist, or speech language pathologist. Goals for physical and music therapy can be working on sitting or standing after surgery, range of motion, hand-eye-coordination, and gross motor function. Occupational and music therapy goals involve improving fine motor skills. Participant 3 gave the example of giving the patient an instrument to hold and seeing how long they are able to maintain the grasp on the instrument. Goals for both music therapy and speech therapy involve asking the patient to try to make certain sounds. This can be done by asking a patient to sing a song that has words that contain many of these sounds.

**Psychological goals.** An important psychological goal in the hospital setting is coping. Improving coping can be related to the general hospital setting, to a specific aspect of the condition they are being treated for. It is also used for helping the patient or their family accept a new diagnosis. Music therapists also hope to reduce a patient’s anxiety and increase their mood because hospitals are stressful environments and unnecessary anxiety can impede proper healing. Cognitive goals are also a significant point of focus in music therapy sessions. These usually involve working on the patient’s attention span and choice making skills. With older patients, therapists are often attempting to give the children an opportunity to express themselves or to give them a sense of control over their environment. For infants and toddlers, an important goal is to improve bonding with the caregiver. When an infant is injured or ill, parents may not be able to or may not be comfortable holding their child. The music gives them a way to connect with the baby even though physical contact is not possible.

**Other goals.** There are a few therapeutic goals that could fit in more than one of the previously mentioned categories. The first is relaxation and calming. This can fit in multiple categories because relaxing and calming have physiological, physical and psychological effects.
A physiological goal for relaxation could be lowering the heart rate, a physical goal might be reducing muscle tension, and a psychological goal can include reducing emotional distress. Another goal that can fit in multiple categories is sensory integration. This is most often a goal for premature infants. The music therapist is attempting to increase the amount of sensory stimulation that the infant can handle.

**Therapeutic tools.** Therapeutic tools are what music therapists use during sessions to facilitate the music making. Most of the time this refers to the types of instruments they are using. Every participant mentioned using guitar, voice, percussion (drums, maracas, bells, xylophone), and piano, with guitar being the most often used and piano being the least often used. These are the main instruments that every music therapist is required to know how to play. Apart from the piano, each of these instruments benefits from being incredibly portable. This is the main reason that piano is not used as often. Portable instruments are critical in the hospital setting because therapists spend much of their day walking from one patient room to the next. Guitar, voice, and piano are also important because they are versatile. They can be soothing and relaxing or they can increase the energy in the room depending on how they are played and used. Percussion is most often used when the therapist wants to get the patient physically involved in the music because percussion instruments are interactive. Some of the participants mentioned other instruments that they choose to use; two therapists enjoy using ukulele in sessions for the same reasons they use guitar: portability and versatility. Two other participants talked about using flutes and recorders with patients that are supposed to be working on their breath support and oxygen levels.

There are some instances where music therapists have special equipment they can use with their patients. One participant talked about using a recording studio. The hospital that this
participant works in has created a music therapy room (an uncommon thing to have in a hospital) and in this room they have a recording studio that they can bring patients down to. These patients are given the opportunity to record songs that they have written in therapy or songs that have a special meaning to them. Another therapist talked about a unique tool that she uses: a stethoscope that has the ability to record heartbeats. She uses this tool in two different ways. The first is recording the heartbeat of a child who is dying, setting that heartbeat to music, and gifting it to the parents as a legacy for their child. The other population she uses this tool with is heart transplant patients. She records the patient’s heartbeat before the surgery and records the new heart after surgery. During recovery, she and the patient work together to set both heartbeats to music. When the patient leaves the hospital, they have this music and “they’re able to have something tangible [to] take home and remember through this really insane journey that they just went through” (Participant 4).

**Challenges**

Working in a pediatric medical setting involves many challenges. The challenge the participants mentioned most often is that every patient is different, “their history is different; their relationship with music is different” (Participant 2). Every session has to be tailored to the individual and what their treatment needs are in that moment. This makes it nearly impossible to create a “standard” in this setting and requires the therapist to be able to shift focuses often and have thorough knowledge of “a never ending, always growing wealth of literature [and] repertoire” (Participant1). These differences not only create challenges with the structure of the session, but also with the patient to therapist relationship. Each time a therapist begins working with a new patient they must decipher the best way to establish a connection with that patient.
Many of the participants mentioned that they would like to start developing group music therapy sessions to enhance patient’s social interaction and to increase the amount of patients a therapist can see in one day. Group music therapy presents new challenges. The biggest challenge with group therapy is that many patients come and go from the hospital quickly. It is difficult to create balanced groups, where participants are roughly the same age and are at roughly the same ability level, when the therapist does not know who is going to still be admitted on any given day. Groups can also pose health risks for patients. Children that are in isolation or who are being watched for infections would be unable to participate. Patients that are mostly bedridden would also find joining a group session difficult or even impossible. This inhibits the number of patients eligible for group sessions.

**Discussion**

This research explores the techniques used in pediatric medical settings by interviewing a sample of board certified music therapists. The interviews shed light on many aspects of working in this setting. The participants discussed receptive and active techniques, the structure of their sessions and challenges they face.

Many of the results from this study accurately represent what was presented in the literature. The most obvious similarity is the types of techniques used. Both the literature and the participants discussed the differences between receptive and active techniques. For example, the literature and this study both discussed the benefits of music listening, music making, song writing, and lyric analysis, but the study gave a more comprehensive view of how they are used. There are many sub-categories within receptive and active techniques and the results of this study gave a more thorough understanding of the specifics of each of the techniques.
Another aspect of the literature and results that match is the goals the therapist is attempting to achieve with the patient. This study also gave a better understanding of this topic by introducing physiological, physical, and psychological treatment goals. It also presented goals that could fit in multiple categories. Treatment goals in the hospital setting are so broad that it is difficult to gain a complete understanding from the literature. While the literature did not specify categories that the treatment goals are part of, the study provided detailed information in order to create these groups. Speaking to people who are working in the field every day gives first hand experiences and helps create an exhaustive picture of what the treatment goals are and how to achieve them.

While the literature does not talk about challenges that a music therapist may face in this setting, this study exposed some of these challenges, including the individualization of the work and the difficulties with facilitating group work. Discovering challenges was also not an anticipated finding from this project. After completing the interviews, it became apparent that understanding the challenges is equally as important as knowing about the techniques and treatment goals in this setting. By recognizing that this setting does present obstacles, it is possible to develop options to overcome them.

While this study does have a small sample size, this research provides a generous supply of data and a rich understanding of medical music therapy. A larger sample size collected from a wider variety of hospitals and regions might have been beneficial, but was not essential with this research. Another limitation was focusing on only the medical field. A comparison of techniques in different settings would give an interesting perspective on how techniques differ within aspects of the field.
The study shows the importance of music therapy in pediatric care. Understanding what techniques to use, what the treatment goals are, and some of the challenges a therapist might face will help medical professionals to better assist their patients. The hope is that this research will help create access to music therapy services in the hospital setting. This research can help patients know about music therapy as a treatment option and it might give healthcare providers confidence to suggest it as a treatment.

One of the goals of this research is to increase awareness of the field of music therapy. Although music therapy is a growing field, there are still only about 5,000 music therapists in the United States and many hospitals still do not offer it as a treatment option. Hopefully, this research will encourage someone to join the field or assist someone in implementing it in their hospital.

This research was also meant to contribute personal insights into the field of music therapy. This study provides an introductory understanding of what to prepare for and what to expect in a career as a medical music therapist. It also allowed for creation of professional contacts within the field.
References


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Appendix A

Interview Questions

1. Can you tell me about your work setting?
2. What does a normal workday look like for you?
3. What population do you primarily work with in your work setting?
4. What does a typical session look like? Do you have a general structure you follow for your sessions?
5. How long does a typical session with a patient last?
6. Do you mostly do individual sessions, group sessions, or both?
7. How do patients typically get referred to you for services?
8. What conditions/illnesses are you most often treating?
9. How would you go about treating a patient with this condition/illness?
10. How do treatments differ from one condition to another?
11. Do you work with neuro-typical patients? If so, how do these sessions differ from those with children with a developmental delay?
12. What goals are you trying to achieve when you work with children?
13. Can you tell me a story about a successful session with a patient?
14. What do you find to be the most effective therapeutic technique to use?
15. Do you use receptive music therapy techniques? If so, can you describe the techniques that you use and when are you most likely to use them?
16. What are some active music therapy techniques and when are you most likely to use them?
17. What instruments do you use during your sessions?
18. What styles of music do you play during your sessions? Are there certain types of music
that are better for certain situations than others?

19. What is the best part about being a music therapist?

20. What advice would you give to someone like me who is planning to study music therapy?