

**Family-Centered Music Therapy in the Hospitalization Treatment  
of Children: A Systematic Review**

By

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Review

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### Abstract

A family-centered approach is becoming more widely used in the treatment of hospitalized children. In general, the involvement of the family is becoming more of a focus during the treatment process in music therapy. Medical music therapy research has grown that examines the benefits of using music therapy in medical settings. However, there are few studies that examine the individual perspectives of children and parents experiencing hospitalization, and how family-centered music therapy addresses these specific, expressed needs. The aim of this systematic review is to examine the needs of parents and children in order to support the use of family-centered music therapy care in children's hospitals and to further family-centered music therapy research. Thorough database searches were used to gather data for this review, which was then synthesized in order to create common themes. These themes reflect how researchers should approach future endeavors to understand the hospitalization experience and how family-centered music therapy studies should be conducted.

*Keywords:* Family-centered music therapy, medical music therapy, systematic review

## Family-Centered Music Therapy in the Hospitalization Treatment of School-Aged Children: A Systematic Review

Being hospitalized can be an incredibly traumatic event for an individual, especially for a child (Bronner, Kayser, Knoester, Bos, Last & Grootenhuis, 2009; Rennick et al., 2014; Woolf, Muscara, Anderson & McCarthy, 2015). It can negatively affect an individual's physical, emotional and social needs, which can impact their well-being and quality of life (Woolf et al., 2015). There seems to be a lack of focus in current literature on understanding the needs of children who are admitted to hospitals (Board, 2005; Salmela, Aronen & Salanterä, 2010). The developmental needs of children, including forming relationships, developing healthy attachment and being able to regulate themselves are crucial for healthy growth (Bowlby, 1973). Because the hospital environment interferes with typical stages of development, children can experience crises in their lives that may have long-lasting effects after discharge (Rennick & al., 2014). The hospital environment can also severely impact the well-being of parents of children, which can then exacerbate feelings of stress and lack of control the child already feels, and negatively affect the emotional availability the parent has toward the child (Ayson, 2008).

A family-centered approach to treatment adapts current treatment methods to follow a more holistic approach that values including family members as much as possible in the treatment plan of their child (Pasiali, 2013). It takes into consideration the emotions expressed by the family, as well as how these emotions affect the child. A family-centered approach can allow for hospitalized children to thrive developmentally, which can aid in preventing harmful, long-lasting effects that hinder a child's growth. By following this treatment approach, professionals are working toward providing treatment for the child that supports interactions between the child and his family as an essential part of the treatment process (Pasiali, 2012).

### **Parental Influences**

It is clear that a hospitalization experience can be a stressful event, for both parent and child (Bronner et al., 2009; Rennick et al., 2014; Woolf et al., 2016). Hospitalization causes significant trauma due to the unexpected degree of change in both the parents' and children's lives. According to the American Psychological Association (APA) (2018), extreme or chronic stress can be emotionally and physically debilitating and can lead to a wide range of issues later in life. It is important to understand that the concept of stress encompasses a variety of components and is closely related to anxiety and fear (APA, 2013). Thus, reviewing current literature regarding parental influence on child perception and behavior is crucial when investigating the role families play in the treatment of their child.

#### **Parental Influence: Developmental Stages**

Erikson (1963) proposed eight developmental stages of childhood. These stages of development are widely accepted among professionals within medical and psychology fields. For the purposes of this review, the focus will be on the first four stages, which comprise birth to age 12. It is during this time in a child's life that understanding these developmental stages, which are based within emotional and social constructs, can help music therapy professionals better guide their treatment in ways that are more beneficial toward children of this age. Children who are within this age range may not openly share their thoughts and feelings as readily as older children may, who have more experience gathering and understanding their internal processes (Rokach, 2010). In other words, a younger child has not developed the capacity to process their own experiences fully, which is why it is important to develop techniques and methods to better understand the experience of the child. Along with this, health

care practitioners often use the parents as the voice of their child who is within this age range, which may not always be an accurate representation of the child's needs (Salmela et al., 2010).

Erikson's (1963) first stage of development, roughly birth to 1 ½ years, involves children gaining a sense of trust with the people and settings around them. It is within this stage that children look to their mothers for a sense of familiarity that helps to guide their own understandings of themselves. By establishing consistency and predictability within the infant's life, they are able to develop a secure ego identity. This can lead to feelings of hope, allowing for a sense of security in the presence of uncertainties. However, in an environment of unpredictability, the infant can begin to develop feelings of fear. These feelings can result in mistrust of the world (McLeod, 2016).

During the second stage, approximately age 18 months to three years of age, children begin to gain a sense of independence. Parental guidance is crucial during this stage. Parents are responsible for allowing space for their children to experiment with their own self-efficacy. This helps children develop a sense of security within themselves (Erikson, 1963). Along with developing a sense of security, children also explore their sense of accomplishment through play during this stage (Rokach, 2010). Parents who are too controlling and critical, or who are unavailable to guide the child, may negatively impact the child's self-esteem. This, in turn, could lead to feelings of shame that can influence the child's sense of self (Erikson, 1963; McLeod, 2010).

A central component to the third stage, around age three to six years, involves children taking more initiative (McLeod, 2010). Children will begin to interact more with others, often through the use of play, and develop their social skills. They will also have an increased interest in gaining knowledge and understanding. However, if opportunities to socially interact are

limited, if parents are overly critical or unavailable, or their questions often go unanswered, children can develop feelings of guilt. These feelings can inhibit their sense of purpose in the future (Erikson, 1963; McLeod, 2010).

The fourth stage, age six to twelve years, is when the children's social worlds greatly impact their thinking and interactions. Rokach (2010) purports that children in this stage have the ability to develop feelings of competency. Children in this stage require consistent opportunities that allow for improvement through practice to develop an understanding of their abilities. If these opportunities are limited, or if the child feels isolated, this can lead to feelings of doubt, withdrawal and inferiority.

Children reach several milestones within these first four stages of development. During the first stage, children establish trust and familiarity in order to build a secure ego that is able to cope well with danger, fear and unfamiliarity. It is through this stage that children are able to then develop their own independence in the world, further building security within themselves. It is within the third stage where children begin to focus on social skills and understanding those around them. Finally, the fourth stage of development allows the child to gain a sense of their own abilities and thinking patterns. If something has the capacity to interfere with a child's development, such as a traumatic event, it can significantly impair the child's ability to cope and learn. Parents remain one of the most important factors of ensuring a child's well-being during these first four stages of life.

### **Parental Influences: Attachment Theory**

Another primary contribution to the field of child development and attachment is Bowlby's (1973) attachment theory. This theory emphasizes the importance of child-parent bonding during early stages in a child's life, and how this can directly affect a child's emotional

and psychological growth. This relates to the aforementioned Erikson's developmental theory in that children often look to their parents in order to direct their own behavior and conceptualize the world around them (Borelli, Rasmussen, St. John, West, & Piacentini, 2015). For example, parental mirroring of an emotion expressed by a young child can help to develop that child's awareness and understanding of his own emotional states. Despite the fact that a child is increasingly able to gain independence and security with themselves, parental awareness and support still plays a continuing key role in the development of the child.

Negative consequences for the child can result when signs from the parents are misinterpreted. This can affect the child's ability to self-regulate. This is particularly important in relation to the specific emotional threat responses of stress, anxiety and fear. These emotions can become detrimental to a child if these feelings are being expressed by the parent in reflection of the child's emotional expression (Gergely & Watson, 1996). It is proposed that a parent who responds to their child's fear with strong feelings of their own personal fear leads the child to believe that their own fear is uncontrollable and dangerous. This leads to increased levels of reactivity and decreased levels of regulation within the child (Borelli et al., 2015). Through recognizing the significance of attachment theory, researchers can take into consideration the impact that the parent-child relationship has on the emotional experience as a whole.

### **Parental Influence: Threat Interpretation**

As previously noted, parental reaction to a child's distress or situation can lead to serious negative emotions experienced by the child. A parent can strongly influence how a child perceives a threat (Bogels, Van Dongen & Muris, 2003). This is important in the event of hospitalization. A hospital setting is an unfamiliar environment for a child, which can lead to uncertainty about perceived safety. Because the hospital environment may be perceived as



threatening, children will look to their parents in order to regulate themselves. If a parent is significantly distressed, the child will adopt those feelings and internalize them as their own. This can lead the child to develop an even greater sense of uncertainty, confusion, fear, and distrust with regard to the medical setting around them (Bogels et. al, 2003).

The hospitalization of a child can cause significant anxiety for the parent. Furthermore, the state anxiety of a parent can also negatively affect a child's interpretation of the event and his ability to process the event. Parents who are anxious tend to be less interactive (Turner, Beidel, Roberson-Nay, & Tervo, 2003), increasingly critical, and less warm toward their child (Whaley, Pinto & Sigman, 1999). Mothers who are frequently controlling often increase their child's fear (Hudson & Rapee, 2001). Parental anxiety has been found to have an influence over both anxiety and depression in children (Burstein, Ginsburg, & Tein, 2010). In addition, parents who tend to externalize their problems also negatively impact a child's emotional experience (Katz & Low, 2004).

Few studies have looked at the difference between the impact that mothers and fathers have on their child comparatively. However, one study made a point to highlight that mothers and fathers have the potential to influence their child's anxiety in different ways (Pereira, Barros, Mendonca, & Muris, 2014). The authors found that anxiety from the mother can directly influence child anxiety. On the other hand, over-controlling behaviors exhibited by the father can have an impact on child anxiety. These differences are important when determining how to approach care for the child.

### **Long-Term Effects of Stress**

Children and parents can experience significant amounts of distress during medical treatment (Rennick et. al, 2014). They are at a higher risk of facing future emotional, behavioral

and psychological issues if preventative measures are not taken. One study conducted by Rennick (2009) showed how children receiving medical treatment have an increase in anxiety, inaccurate memories, fear of hospitals, and disillusioned sense of self. Often, children can develop fears that last long after their discharge from the hospital. Being hospitalized can also affect a child's cognitive abilities and self-esteem. In some cases, children will develop post-traumatic stress symptoms as a result of their admission and treatment, including recurring dreams and memories of being hospitalized, prolonged emotional distress, increased negative emotions, increased withdrawal, irritability, difficulty concentration and decreased interest in previously meaningful activities (APA, 2013).

Parents also experience symptoms of post-traumatic stress disorder that can affect their child's psychological adjustment post-discharge (Landolt, Ystrom, Sennhauser, Gnehm & Vollrath, 2012). Parents can have similar feelings of helplessness and withdrawal and may exhibit avoidant behaviors and physiological arousal (Woolf et al., 2015). Woolf et al. (2016) also indicated that nearly one-third of parents who endure a life-threatening illness diagnosis in their child undergo traumatic stress symptoms. The prevalence of these symptoms in parents is strongly associated with their perceptions of the event, rather than the objective aspects of the hospitalization process (Bronner et. al, 2009). Preventative care offered at an early stage of hospitalization may help ameliorate significant, long-lasting emotional, behavioral and psychological impairment.

### **Aims of Systematic Review**

Despite the fact that family-centered approaches in music therapy have significant potential benefits for children, there is little research regarding this type of practice throughout music therapy literature. This systematic review is focused on compiling common themes

among the subjective experience of parents and children in the hospital setting, highlighting the characteristics of studies where family-centered music therapy was implemented and influencing future research in both of these areas based on the findings. The questions addressed in this review are:

1. What are the specific needs of children and parents who are undergoing treatment during a hospital admission?
2. Does family-centered music therapy research address these needs?

### **Method**

The database search process was divided into two separate searches to ensure a comprehensive investigation of the research questions previously mentioned. The results of the first database search directly influenced the criteria of the subsequent database search in order to maintain accuracy throughout the process.

#### **Search 1: The Needs of Children and Parents during Hospitalization**

The first database search focused on the needs of children and parents during the hospitalization experience. Specifically, this search examined common needs and perceptions of children during hospital admission and the physiological responses of parents whose children are hospitalized.

**Database search strategy.** The electronic databases that were used in order to conduct the first search were PsychINFO, PsychARTICLES, MEDLINE, and Academic Search Complete. All articles used for this search were published during or after 2005. In order to avoid bias, keywords were not influenced by assumptions regarding the hospitalization experience of children and parents. Henceforth, this database search was completed using the following keywords: “Children” AND “Parents” AND “Hospitalization.”

**Inclusion criteria.**

1. The article was a research study.
2. The article was peer-reviewed.
3. The participants were human subjects that showed no signs of neurological or cognitive impairment.
4. The study had no restriction on gender and race.
5. The children included in the study were aged birth – 12 years old.
6. The article was published in English.

**Exclusion criteria.**

1. The participants exhibited signs of neurological impairment or a brain injury.
2. The article was published before 2005.
3. The children included in the study were older than 12 years of age.

**Results**

The electronic database search resulted in a total of 933 articles (n = 239 from PsychINFO; n = 13 from PsychARTICLES; n = 259 from MEDLINE; and n = 422 from Academic Search Complete). There was a total of 8 articles identified through other sources. After duplicates were removed, the researcher was presented with 684 articles. Each article was screened according to the established inclusion and exclusion criteria. Of these 684 articles, 654 were excluded based on the criteria, resulting in 30 articles. The researcher further examined the screened articles, which resulted in a total of 15 articles that were to be used in the review (see Figure 1).

The reasons for the final elimination of 15 articles are included in the PRISMA diagram in Figure 1. These reasons include a focus on received care, a lack of focus on the parent/child

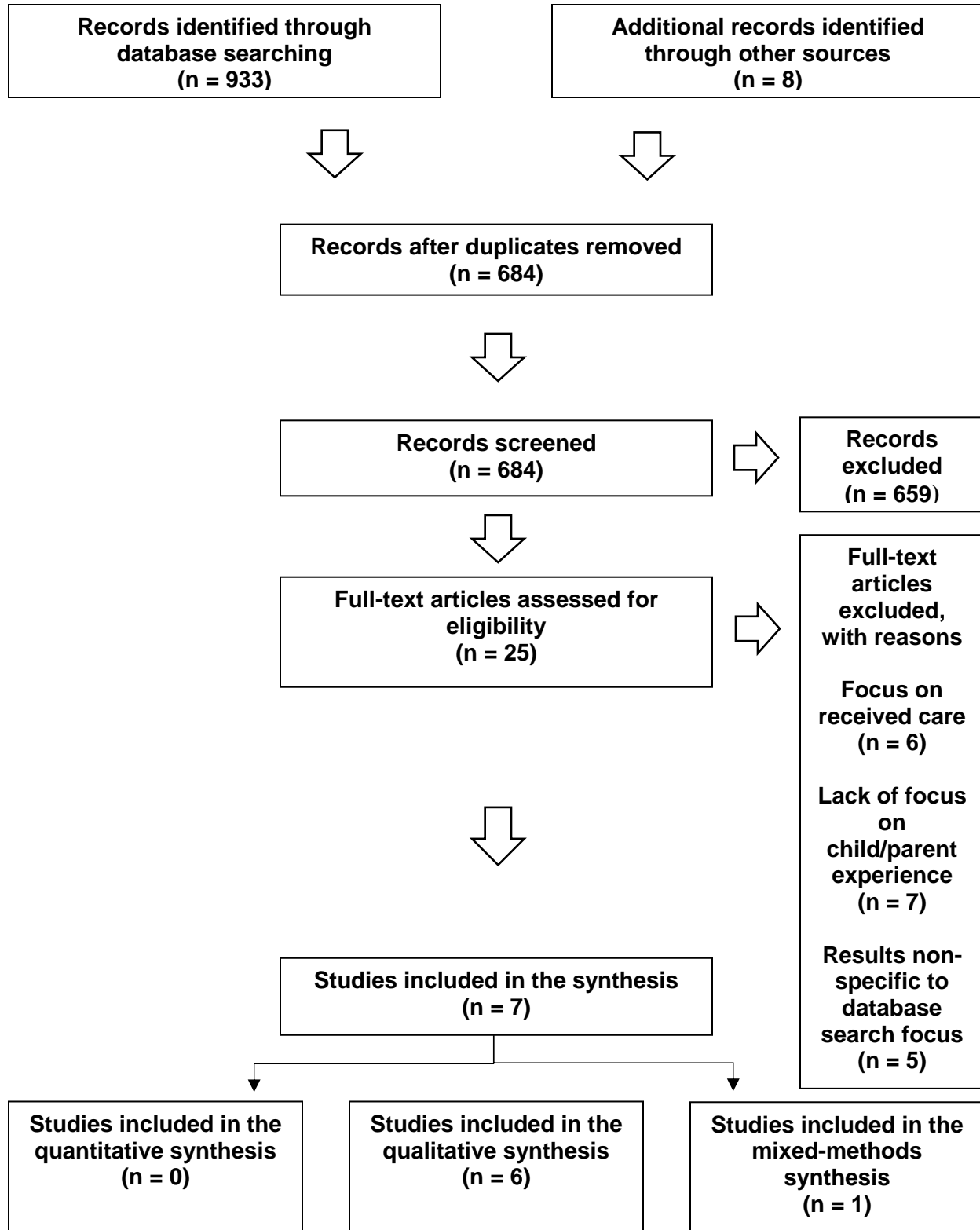


Figure 1. PRISMA database search results. This figure represents the process of elimination during the first electronic database search conducted.

experiences, and research questions beyond the parameters of this systematic review. Articles that were eliminated due to the focus on received care were primarily concerned with the type of care that children and parents received during their hospital stay. Although music therapy may fall under the type of received care, it was not the specific research question for this database search. Studies that lacked sufficient focus on the subjective experiences of parents and children did not align with the aim of this search. Finally, articles that did not study the phenomena addressed in this systematic review were eliminated.

### **Characteristics of Participants and Study Design**

The included studies contained a total of 742 participants, with 528 children and 174 parents. The children participants in these studies ranged from 3 years to 12 years of age. The research studies that included the gender of their participants presented a total of 218 girls and 218 boys. One study did not indicate the gender of the children participants, which represents the remaining 92 children (Salmela, Aronen, & Salanterä, 2010). The children being researched were either admitted to the hospital prior to the research study or admitted as the research study took place. The parental participants consisted of 104 mothers and 70 fathers. The group of parents included those whose infant was admitted for cardiac surgery (Kosta, Harms, Franich-Ray, Anderson, Northam, Cochrane, Menahem, & Jordan, 2015), those whose infant was born prematurely at <34 weeks (Fernandes & Silva, 2015), and who had a hospitalized child who was able to communicate effectively (Bsiri-Moghaddam, Basiri-Moghaddam, Sadeghmoghaddam, & Ahmadi, 2011).

Studies were conducted at a school and a variety of medical facilities in Finland (Pelander & Leino-Kilpi, 2010; Salmela, Aronen, & Salanterä, 2010), one hospital in the Midwest and one on the East Coast (Board, 2005), a hospital in Ohio (Nabors & Liddle, 2017),

Bahman and Khordad hospital in Iran (Bsiri-Moghaddam, Basiri-Moghaddam, Sadeghmoghaddam, & Ahmadi, 2011), a hospital in Portugal (Fernandes & Silva, 2015) and the Royal Children's Hospital in Melbourne (Kosta, Harms, Franich-Ray, Anderson, Northam, Cochrane, Menahem, & Jordan, 2015). All studies reviewed were qualitative with the exception of one study (Board, 2005), which was mixed-methods. The methods used to complete the research included structured interviews, semi-structured interviews, sentence completion, child drawing and the School-agers Coping Strategies Inventory (SCSI), which is a self-reporting measure that consists of 26 items that measure frequency and effectiveness of coping strategies.

### **Presented Needs of Children**

In the studies that focused on children's perspectives, rather than translating the needs through the parents, the researchers were able to develop a first-hand understanding of the experiences of hospitalized children. As a result of the synthesis process, several key elements of the hospitalization experience of children, both positive and negative, appeared within the literature. These themes overlapped throughout the selected articles, which allowed for common experiences to be reiterated and emphasized.

Through examining these research studies, the most frequently reported positive and negative experiences were recorded (see Table 1). Common themes with regard to the positive experience of hospitalized children include having support, finding distraction and being provided with familiarity. The positive experiences focus on social support, primarily from the family. The themes for negative experiences are fear, negative emotions, pain and unfamiliarity. The negative experiences revolved around feelings of uncertainty, fear of the unknown, being surrounded by unfamiliarity and a wide range of personal negative emotions.

*Table 1.* Positive and Negative Experiences of Hospitalized Children. This figure illustrates themes regarding the most frequently reported experiences of children who are hospitalized.

<b>Positive Experiences</b>	
Support	Familial support; support from nurses; support from child life specialists
Distraction	Sleeping; talking to someone; fun activities; entertainment
Familiarity	Comfort from family; safety provided by parents
<b>Negative Experiences</b>	
Fear	Illness; procedures; medication; separation from parents; being alone; being injured; needles; isolation
Negative Emotions	Anxiety; sadness; anger; frustration; worry; loneliness; helplessness; rejection; nervousness; suspicion; shame; guilt; uncertainty; insecurity; distrust; inadequacy; loss of control
Pain	Procedural pain; pain from illness
Unfamiliarity	Unfamiliar people; unfamiliar procedures; unfamiliar equipment; unfamiliar environment; medication

A common research technique was to ask children to recall what they remembered about their hospitalization experience. Board (2005) found that the majority of children identified interactions with other people as a beneficial aspect of the hospital, including nurses and family. Several children stated that some of their negative feelings were unpleasant aspects about being hospitalized. They also noted pain, sadness and needles/IVs as being negative aspects of the hospitalization experience. The most commonly used and effective coping strategies for the children were to sleep and to talk to someone. However, it is important to note that the effectiveness and frequency of these coping mechanisms were low once the children were transferred from the Pediatric Intensive Care Unit (PICU) to the GCU (General Care Unit).



Nabors and Liddle (2017) examined both the experience of children during their hospital stay as well as the experience of their siblings. This study looked at both positive and negative experiences of the participants. The children expressed having positive experiences in response to receiving support from others, being involved in distracting activities, interacting with child life specialists, and having both parents and siblings present during the treatment process. Conversely, negative themes included the impact of the illness, pain, worry, wanting to be home, fear, and loneliness. The siblings in this study felt worry regarding their brother or sister's illness, and fear of their death.

The theme of fear is also highlighted in the study conducted by Salmela, Aronen and Salanterä (2010). Interviews uncovered common themes of fear of procedures and pain, separation from parents, unfamiliar people, unfamiliar equipment and unfamiliar environment. Other themes included fears of being alone, and experienced negative emotions including helplessness, rejection, sadness, nervousness, frustration, anger, suspicion, shame, guilt and uncertainty. They also reported feelings of distrust and loss of control over their situation.

Pelander and Leino-Kilpi (2010) examined children's best and worst experiences, identified through the method of sentence completion. The researchers discovered that children responded best to familiarity. Parents and family were seen as the best way to provide safety, and children enjoyed participating in distracting activities with them. The children in this study also reported entertainment as being the most enjoyable activity during their time in the hospital. Several negative experiences reported in this study related to the previous studies, including pain, symptoms of their illness, separation from parents and family, fear of procedures and needles, medication, and feeling isolated.

Similar feelings were noted by Bsiri-Moghaddam, Basiri-Moghaddam, Sadeghmoghaddam and Ahmadi (2011). Children reported feelings of fear, anxiety, pain, unfamiliarity, loneliness and fear of death. The children in this study had concerns about being separated from their parents, being left in strange surrounding and the well-being of their parents. There were also themes of procedural pain, interference with school, and spirituality.

### **Presented Needs of Parents**

During the analysis of parental needs, overlapping themes were found between the experiences of parent and child. It is important to look at the perspectives of parents of children who are hospitalized because they are a crucial component of the treatment process of their child. As part of the child's support system, the well-being of parents should be a focus of provided hospital care.

As the child's primary caregiver, a parent involved in the treatment process of their child experiences change in their lifestyle, finances and daily routine (Bsiri-Moghaddam et. al, 2011). Similar feelings of fear, loneliness and anxiety were reported among parents that was found among their children. Some of the challenges that parents had to undergo during their child's hospitalization included miscommunication, inconsistency, feeling unable to make decisions and a lack of multidisciplinary professionals to assist in the treatment of their child (Kosta et. al, 2015). Parents stated a need for more resources and emotional support as well. A variety of coping mechanisms were created by parents that included praying, involving themselves in parenting behaviors, finding ways to express their emotions and distracting themselves. Several parents also conveyed the need for a more normalized environment, and that the hospital environment interfered with the bonding between them and their child (Fernandes & Silva,

2015). Separation from their child led several parents to have increased negative feelings. On the other hand, support from staff was a significant factor in maintaining the well-being of the parents. Common themes were once again compiled through the perspective of parents (see Table 2).

*Table 2.* Positive and Negative Experiences of the Parents of Hospitalized Children. This figure illustrates themes regarding the most frequently reported experiences of parents whose children are hospitalized.

<b>Positive Experiences</b>	
Support	Support from staff and health care professionals
Positive Coping Mechanisms	Spirituality; expressing emotions; distraction; engaging in parenting behaviors
<b>Negative Experiences</b>	
Fear	Unknown; illness; separation;
Change	Lifestyle change; financial change; travel arrangements; daily routine; loss of control; lack of normalized environment
Lack of Resources	Miscommunication; lack of staff availability; feeling excluded in decision making;
Negative Emotions	Anguish; anxiety; loneliness; sadness; uncertainty; suffering; pain; fear of death of child

**Search 2: Family-Based Music Therapy in the Medical Setting**

The second database search examined current literature on family-centered music therapy being practiced in children’s medical settings. Analysis focused on the goals of the research and interventions compared to the themes of needs identified in the previous section, and the needs of family-centered music therapy research. Because the lack of published research on family-

centered music therapy in a children's hospital setting prompted this study, efforts were made to examine a variety of studies that were carried out in different medical facilities with varying levels of individualized music therapy treatment.

**Database search strategy.** The databases used in this search were PsychINFO, PsychARTICLES, Academic Search Complete, Journal of Music Therapy, and Music Therapy Perspectives. All articles that were chosen were published in or after 2000 in order to broaden the amount of music therapy literature. The keywords used during the search were as follows: "Family-Centered Music Therapy" OR "Family-Based Music Therapy" OR "Medical Music Therapy."

**Inclusion criteria.**

1. The article was a research study.
2. The article was peer-reviewed.
3. The study had no restriction on gender and race.
4. The article was published in English.

**Exclusion criteria.**

1. The article was published before 2000.
2. The treatment intervention was conducted by a medical professional other than a credentialed clinical music therapist.

**Results of the search.** In order to narrow down the search results prior to the screening process, the first three databases were searched with all three keyword phrases simultaneously while the last two databases had separate searches for each keyword phrase. Duplicates were

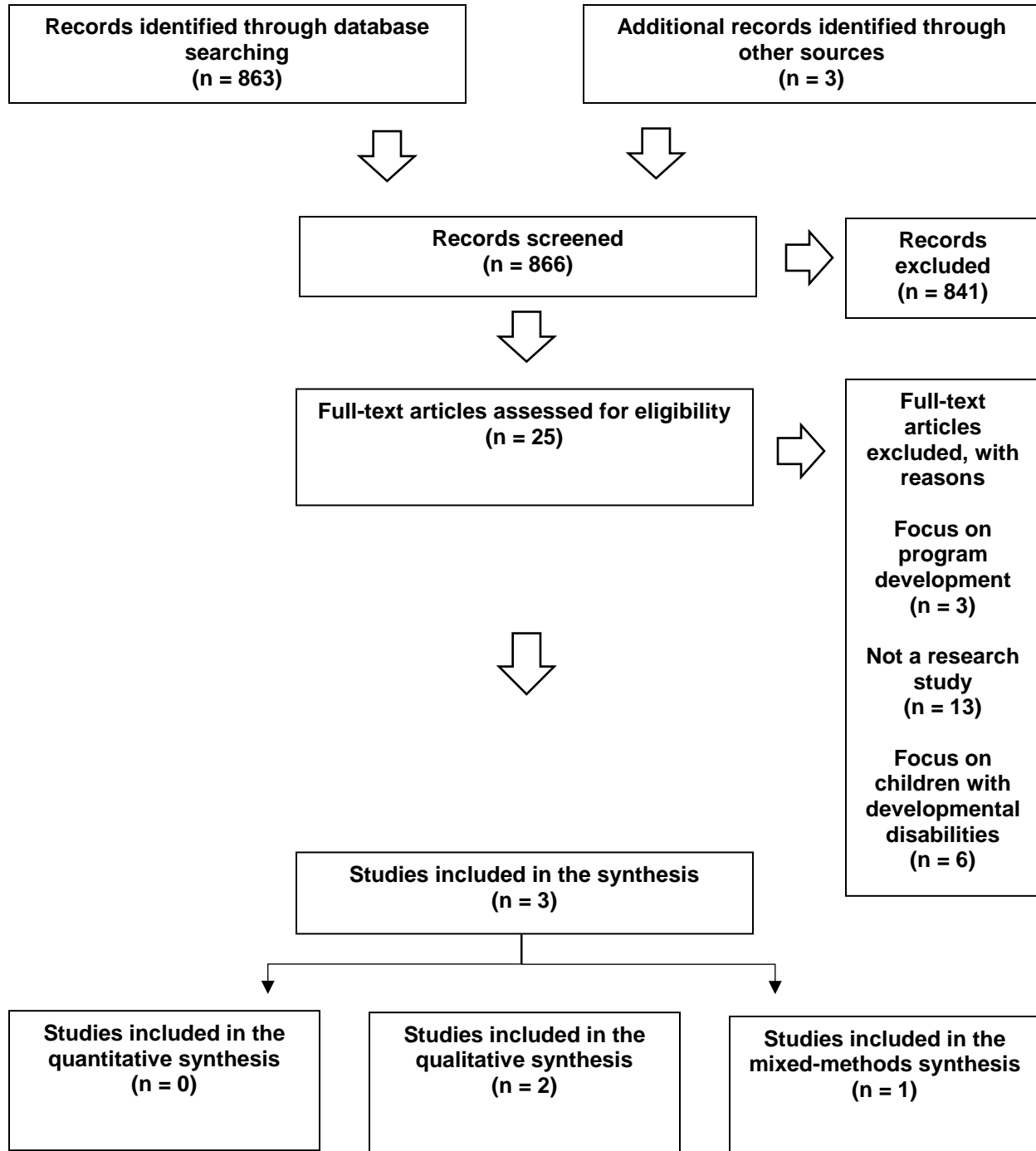


Figure 2. Second PRISMA database search results. This figure represents the process of elimination during the second electronic database search conducted.

automatically assessed throughout the screening process. This has been reflected in the PRISMA diagram for this search (see Figure 2).

This electronic database search resulted in a total of 863 articles. The first three databases were as follows:  $n = 103$  from PsychINFO;  $n = 225$  from PsychARTICLES; and  $n = 25$  from Academic Search Complete. For the Journal of Music Therapy, there were  $n = 49$  articles for a keyword search of “Family-Centered Music Therapy,” there were  $n = 66$  articles for a keyword search of “Family-Based Music Therapy,” and  $n = 121$  articles for a keyword search of “Medical Music Therapy.” For Music Therapy Perspectives, there were  $n = 71$  articles for a keyword search of “Family-Centered Music Therapy,”  $n = 82$  articles for a keyword search of “Family-Based Music Therapy,” and  $n = 121$  articles for a keyword search of “Medical Music Therapy.” There were 3 articles identified through other sources.

After the process of screening took place, the researcher ensured there were no duplicates between the selected articles. Of the original 866 articles screened, 841 articles were excluded based on the established criteria. This resulted in 25 articles that were further screened for eligibility. After a second assessment, the total number of finalized articles was 3. The reasons behind the exclusion of these 25 articles is listed in Figure 2, and includes the articles being focused solely on program development, the articles not being research studies and studies that had participants who were developmentally disabled. Although program development is important in the field of music therapy, the focus of this search was to illuminate what current family-centered music therapy offers based on studies conducted. This being said, articles that were not research studies were also excluded. Similar to the first database search, participants who showed signs of impairment or delay were not included in the results.

**Characteristics of participants and study design.** The final results of this database search reflect how little research there is regarding family-centered music therapy with children in a medical setting. The three articles that were included are in-depth research studies that examine the experiences of family-based music therapy in different settings. One article focused on the experience of parents who had a terminally ill child, where family-centered music therapy was present during treatment (Lindenfelser, Grocke & McFerran, 2008). There were a combined twelve families in the included studies.

Pasiali (2012) studied four families who participated in eight family-centered music therapy sessions. These sessions focused on improving communication and interaction between all family members involved. Data collection occurred through semi-structured interviews and through two quantitative measures, the Devereux Early Childhood Assessment Scale (DECA) and the Parenting Sense of Competence Scale (PSOC). These scales were administered prior to starting the music therapy sessions in order to create more individualized treatment plans for each family, but no post-treatment measures were taken. In addition to the semi-structured interviews, the parents were involved in weekly journaling and consultations. Each music therapy session was videotaped for further evaluation.

The second study, also conducted by Pasiali (2013), was a case study describing the effect of family-centered music therapy on the interactions between a 35-year-old woman and her two children who had experienced domestic violence. Pasiali used the DECA and PSOC again to guide the structure of the following eight music therapy interventions. A semi-structured interview was conducted before and after music therapy treatment. Parents were instructed to keep a journal and participate in consultations throughout the eight week music therapy treatment intervention.

The third included study involved seven parents of children, age 5 months to 12 years, whose child passed due to terminal illness (Lindenfelser et. al, 2008). Five of the seven children were diagnosed with brain tumors, while the other two had chronic conditions that resulted in several disabilities. Data was collected through semi-structured interviews, which were analyzed and synthesized for themes across participants.

**Themes within family-centered music therapy experience.** All three studies showed significant, overlapping themes that were observed, documented and analyzed after the family-centered music therapy sessions were conducted. These themes (See Table 3) can be divided into five separate categories: (1) Mutual Cooperation and Sharing; (2) Emotional Ambiance; (3) Opportunities to Communicate; (4) Trust, Safety and Support; and (5) Product Creation and Legacy Building. Although the parents were able to verbally express their experience during interviews, the observable behavior of the children influenced these themes as well.

*Table 3.* Articles Sources in Relation to Collected Themes. This table represents the five themes that were compiled from the articles reviewed, with the corresponding source listed.

Theme	Article Source
Mutual Cooperation and Sharing	Pasiali, 2012
Emotional Ambiance	Lindenfelser et. al, 2008; Pasiali, 2012
Opportunities to Communicate	Pasiali, 2013
Trust, Safety and Support	Lindenfelser et. al, 2008; Pasiali, 2013
Product Creation and Legacy Building	Lindenfelser et. al, 2008; Pasiali, 2012

One of the main themes throughout these studies that was reported and observed was the amount of mutual cooperation and sharing that existed between parent and child during the



music therapy sessions. Mutual cooperation can be thought of as “the extent to which the dyad effectively resolves potential sources of conflict and the extent to which partners are open to each other’s influence” (Aksan, Kochanska, & Ortman., 2006, p. 848). Through mutual cooperation, the parent and child are allowing each other in their space, and then growing together through the presented conflict. This was shown frequently through attempts of instrument sharing, turn taking, playful musical exchanges and healthy modeling from parents to child (Pasiali, 2012). The idea of mutual cooperation leads into the concept of psychological attunement, in which the parent is genuinely open to verbal and behavioral signals sent by the child, who purposefully attempts to send these signals as a way to develop attachment (Bowlby, 1973; Ainsworth, Blehar, Waters & Wahls, 1978; Pasiali, 2013).

Emotional ambiance is a state of mutual pleasure and positivity derived from this shared experience between parent and child (Pasiali, 2012). Parents often described the music therapy sessions as fun and enjoyable (Pasiali, 2012; Lindenfelser et. al, 2008), and were happy that music therapy allowed for time to spend with their child. Through the family-centered music therapy, both parent and child are able to effectively address their distress and negative emotions together. Because the music therapy naturally allows for opportunities of warm emotional ambiance, this can help the shared experience move toward healing.

The ability for the patient or client to communicate both verbally and non-verbally is one of the benefits specific to music therapy that aids in the treatment of individuals. By incorporating music into therapy, the participants were allowed the freedom to express themselves through music making (Wheeler, Shultis & Polen, 2005). This was especially important for children, who are still developing their social and verbal skills and may have difficulty expressing their feelings and thoughts through words. It is also beneficial to those in

situations in which communication is limited or negatively affected by circumstance, including a hospitalized setting, where parent and child lack the communication skills to maintain a healthy, empathetic relationship. Pasiali (2013) noticed that not only did children make attempts to engage their family in the music verbally, but they also used instruments to do so. This can help the parent understand the child's need for mutual cooperation and sharing within the music therapy.

An essential component to music therapy practice is establishing trust between music therapist and client (Bruscia, 2014). This is one of the first steps to building a relationship and moving toward growth. In family-centered music therapy, it is also the music therapist's goal to facilitate trust between parent and child. In a setting such as a hospital, lack of control can lead to significant feelings of mistrust and danger within a child. However, it was noticed that the music therapy was able to rebuild that sense of trust and safety between parent and child (Pasiali, 2013; Lindenfelser et. al, 2008). The children in the studies often sought approval from their mothers and used their mothers as a reference during music making activities, including improvisation, instrumental playing and singing (Pasiali, 2013). There were attempts made by the children to gain reassurance and affirmation from their parents as well. This, in turn, gave parents the opportunity to practice positive encouragement and healthy modeling behaviors for their child.

Finally, a unique benefit of music therapy is the ability to create a final, musical product. By exploring their own creativity through the music, parents and children can create something that can represent the healthy side of them that is not impacted by illness or trauma (Pasiali, 2012). Family-centered music therapy also allows the participants the opportunity to work toward something through practice, which can help build self-esteem. When considering

working with families who have lost a child, parents reported the positive impact of having a permanent musical creation that represents their child (Lindenfelser et. al, 2008). This is important for legacy building, where the music serves as a way to commemorate their child. In this way, the music product is able to have a positive impact on the experience of loss.

**Limitations and concerns from parents.** There were limitations presented by the researchers to enhance future research on this topic. Pasiali (2012) indicated that her study lacked significant quantitative measures and suggested the use of a variety of data gathering methods in future studies to encompass all aspects being analyzed within the study. Pasiali (2012) also suggests using purposeful sampling to increase knowledge from different perspectives. Because Pasiali (2013) was a single case study, the results cannot be generalized. In Lindenfelser et. al (2008), the parents reported feeling uncomfortable with the distress shown by the music therapist toward their dying child. This stresses the importance of credentialed music therapists conducting music therapy who, in this case, have extensive experience working with such sensitive cases.

## **Discussion**

This systematic review was conducted in order to determine the specific needs of parents and children in a hospital, to examine the ability of family-centered music therapy to address these needs, and to elucidate limitations in current family-centered music therapy research. Both positive and negative experiences were compiled with regard to how parents and children experienced their hospital stay. Current music therapy research was examined in order to determine whether or not family-centered music therapy inherently addresses these needs. Five themes were discovered in the data that represent common experiences held by parents and children who participated in family-centered music therapy sessions during times of crisis. The

five themes reflected several of the needs expressed by parents and children in the first database analysis. Limitations were then highlighted in order to help shape future research on this topic.

### **Addressing the Needs of Parents and Children**

The first database search revealed positive and negative experiences expressed by both the parents and children in medical settings. The positive experiences from the children included having support, distraction and familiarity. However, they also reported experiencing fear, negative emotions, pain and unfamiliarity as being the worst aspects of hospitalization. Parents of children in the hospital ranked support and positive coping mechanisms as what helped them through the experience the most. Parents also experienced intense feelings of fear and negative emotions, but also unwanted change to their routines and lack of resources.

Although there were few family-centered music therapy research articles synthesized in the second database search, these studies highlighted important benefits of having both the child and parent participate in music therapy during times of crisis. Through examining these articles, five themes were found to be pertinent in the healing process of these family-based music therapy sessions. Because these five themes were gathered from only three research studies, it is hard to generalize the findings. However, connections can be made between these themes and current literature on music therapy practice, which is discussed later.

One of the aspects of music therapy that was documented was an increase in mutual cooperation (Pasiali, 2012). Attachment theory plays a large role in mutual cooperation, due to the fact that the music therapy is fostering interactions between parent and child. In these situations, both individuals are remaining open to being in the other's space, which can lead to the development of healthy attachment. This addresses the need to experience support, which

both parents and children reported as being a positive aspect of the hospital experience. It also provides familiarity for the child in an environment where everything becomes part of the unknown. Experiencing mutual cooperation normalizes the environment, thus providing the sense of regularity that parents found lacking in the hospital environment. It also gives the parents a chance to participate in typical parenting behaviors of modeling and interaction.

Emotional ambiance, the feeling of positivity and enjoyment, is central in addressing the negative emotions experienced by both parents and children. Some of the negative emotions stated included anxiety, sadness, loneliness, anger and frustration. By sharing inherently positive moments in music, these negative emotions can be ameliorated, thus making space for positive emotions to emerge (Pasiali, 2012). This allows for affect and mood to brighten, as well as feelings of worry to subside. It also creates positive coping mechanisms for the parent and child, which parents reported as lacking in the hospital environment.

By giving children a chance to communicate their feelings and thoughts, whether through the music or verbally, allows for them to be heard (Wheeler et. al, 2005). Children expressed having fear of being isolated and found talking to people a positive means of distraction. Hospitalization reduces children's sense of control, because of the illness and medical professionals, and also due to parents' possible overbearing behavior. Self-expression can help children regain a sense of recognition, control and choice. This may help parents more deeply understand the feelings of their child.

Family-centered music therapy establishes trust, safety and support (Lindenfelser et. al, 2008; Pasiali, 2013). These are key elements in strengthening relationships, increasing resilience and building attachment. By securing the bond between parents and their children, the music therapy process can directly facilitate needed family support for the children. Children stated that

comfort and safety are important to them during their treatment. They also reported feelings of rejection, shame, guilt and distrust. By having the parents recognize their feelings and create a new space where the child can feel accepted, loved and heard, these negative feelings can be transformed into a sense of security and acceptance within themselves.

In terms of music therapy practice in a children's hospital, some parents felt uncomfortable participating in family-centered music therapy treatments where the music therapist demonstrated distress in response to their child's terminal illness (Lindenfelser et. al, 2008). Music therapy practice in hospitals can be quite intense and should be implemented by an experienced professional. If family-centered music therapy is not carried out to a professional standard, it may not have the same potential to heal as it would be implemented by a board-certified, experienced music therapist. A main negative aspect of the hospital for parents was the lack of resources, which also points to the need for more music therapists to be available within a hospital setting (Lindenfelser et. al, 2008).

Several connections can be made to themes that Bruscia (2014) points out regarding the social aspects of music making during a session. He describes cooperation as being an important element in fostering a shared musical experience. Bruscia also points out the development of emotions and feelings as a central aspect in certain interpersonal relationships, which ties into the theme of emotional ambiance being explored between parent and child within the music. Along with this, Koelsch (2013) purports that communication plays a central role in development and regulation of young children. This relates back to Erickson's (1963) developmental stages, but also to the benefits of open communication between parent and child during music therapy.

### **Limitations and Future Research**

When considering future research, it is important to recognize the limitations of the published literature, including research studies regarding the needs of parents and children. Overall, there is a need for both quantitative and qualitative data on this topic. As such, mixed-methods is encouraged in order to gather numerical data while also examining the subjective experiences of the participants (Bradt, Burns & Creswell, 2013). The research studies analyzed within this systematic review used a variety of pre-established, reliable scales, as well as semi-structured interviews and questionnaires. This is crucial to demonstrate the benefits of individualized treatment approaches, while also illustrating the objective information. Table 3 represents several scales that were used within the studies included in this systematic review. This can help influence future research to use quantitative instruments, alongside qualitative measures, that are most effective in gathering data from both parents and children before, during and after family-centered music therapy treatment.

Methods of data gathering are important. Nabors and Liddle (2017) pointed out that data from children should be gathered in a way that is not intimidating to the child. These authors used play in order to get accurate data regarding the child's point of view. Semi-structured interviews were considered important but should be implemented preferably by one interviewer to maintain credibility (Salmela, Aronen & Salanterä, 2010). Other considerations include timing of the data gathering. Participants should be studied during hospitalization, rather than after discharge, to truly understand the benefits family-centered music therapy has during the treatment process itself. Board (2005) also noted that there is a lack of research on critically ill children and their families, when these individuals are the most at risk. However, this is a

*Table 3.* Quantitative instruments used within research. This figure shows the instruments and scales used within the research examined in this review.

<b>Authors and Date (As Cited in Reference)</b>	<b>Scale/Instrument</b>
Rennick et. al, 2014	State-Trait Anxiety Inventory (STAI); Behavioral Assessment System for Children (BASC); BASC-2 Self-Report Profile (BASC-2 SRP); Critical Illness Impact Scale (CCIIS); Parenting Stress Index (PSI)
Bronner et. al, 2009	Self-Rating Scale for PTSD (SRS-PTSD); Hospital Anxiety and Depression Scale (HADS); Utrecht Coping List (UCL); Peritraumatic Dissociative Experiences Questionnaire (PDEQ)
Borelli, Rasmussen, St. John, West & Piacentini, 2015	Brief Symptom Inventory (BSI); Multidimensional Anxiety Scale for Children (MASC);
Pereira, Barros, Mendonca & Muris, 2013	Screen for Child Anxiety Related Emotional Disorders-Revised Version (SCARED-R); Children's Negative Cognitive Errors Questionnaire (CNCEQ); Ambiguous Situation Questionnaire for Children (ASQ-C); Anxiety Control Beliefs (ACQ-C); State Trait Anxiety Inventory (STAI); Anxiety and Overprotection Scale (EASP); Eгна Minnen Beträffande Uppfostran for Children (EMBU-C)
Mackenzie, Laskey & Wittkowski, 2013	International Affective Picture System (IAPS); State-Trait Anxiety Inventory for Adults (STAI); The Basic Negative Emotion Scales (BNES)
Board, 2005	School-agers Coping Strategies Inventory (SCSI)
Pasiali, 2012	Devereux Early Childhood Assessment Scale (DECA); Parenting Sense of Competence Scale (PSOC)



difficult time to gather for families to participate in research studies. In general, there is a need for larger sample size, as small numbers were there is a need for larger sample sizes, as small numbers were common in the included studies.

Finally, ethical considerations are important when considering future research with children. Children are considered to be highly vulnerable when involved in research studies, especially children who are hospitalized (U.S. Department of Health and Human Services, 2009). Due to the stressful nature of hospitalization, it may also be challenging for families to participate in a research study. In terms of music therapy in general, it can be considered a standard of practice, so it would be considered unethical to have a control group where music therapy treatment was denied to the individuals participating in the study. The only possible exception to this are NICU babies, where they may serve as their own control. These are all important factors to take into consideration in order to follow music therapy ethical guidelines.

### **Conclusion**

After reviewing and synthesizing current literature regarding the involvement of parents in the development of children, it is clear that parents have a significant effect on their children's emotional, behavioral, and psychological responses and growth. This is especially true in a hospital environment where the child experiences numerous stressors. By examining attachment theory and the influences parents have on child threat interpretation, the role of bonding becomes something that is needed when experiencing crisis. Often, if not addressed early, the negative effects of a traumatic event, such as a hospital admission, can carry into the individual's lives after the event. Parents and children have a variety of needs during a hospital admission, and they report both positive and negative experiences during hospitalization. The positive experiences that were compiled through this review included support, distraction, familiarity, and

positive coping mechanisms. On the other hand, the negative experiences were reported to be fear, negative emotions, pain, unfamiliarity, change, and lack of resources. By understanding these needs and how a parent and child perceive hospitalization, professionals can improve treatment procedures in order addresses the family holistically, rather than only medically.

Music therapy practice is able to address a wide variety of individualized goals during the treatment process. It is carried out by board-certified music therapists who are trained to address a variety of issues presented by clients and patients. Family-based music therapy allows the family of the client or patient to be significantly involved in the treatment process and values the benefits that arise from recognizing the importance of familial bonding, attachment and relationship building as a part of recovery. Because young children are highly dependent on familial relationships in their perceptions of the world and their own sense of self, it is crucial that parents guide them through this time where they experience feelings of unfamiliarity, fear, isolation and uncertainty. In the studies included during the second review, parents were a central part of each music therapy session. After analyzing these studies, themes of mutual cooperation, emotional ambiance, communication, trust and safety, and legacy building were found. This review illustrated that these several components of the music therapy experience inherently address key issues that parents and children reported struggling with during hospitalization.

Efforts should be made in the future to address current limitations and gaps in family-centered music therapy research, and design comprehensive mixed-methods studies to gather quantitative measurements and qualitative descriptions. This research should also influence music therapy practice in hospitals so that health professionals and clinicians can improve current treatment procedures to encompass the needs of parents and children. An understanding

of both the general needs of families and their specific situations, preventative family-centered music therapy can help to improve the well-being of parents and ill children and promote healthy future functioning.

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