Integration of Music Therapy and Child Life Interventions in Clinical Practice:

A Descriptive Study

By Vanessa Talbott, MT-BC

A Thesis Submitted in Partial

Fulfillment of the Requirement

For the Master of Arts Degree

Masters of Arts in Music Therapy Program

In the Departments of Graduate Studies

And Music and Theatre

Saint Mary-of-the-Woods College

Saint Mary-of-the-Woods, Indiana

December 2014

Abstract

While the current literature is helpful in informing the general practice of dual-certified child life and music therapy clinicians, the integration of specific child life and music therapy interventions has not been fully explored. Understanding the specific integration of interventions would help dual-certified clinicians maximize the effective use of available child life and music therapy techniques to meet the needs of the patients they serve. In addition, the study could inform those in the music therapy community interested in the child life profession to increase clinical knowledge and also fill a need in the current literature (Ghetti, 2011a). Therefore, the purpose of this study was to provide a detailed description of the integration of music therapy and child life practices in pediatric settings. The researcher used qualitative content analysis to describe the integration practices of six participants. Detailed descriptions were gleaned from in-depth interviews in the areas of assessment, coping, preparation, procedural support, and anxiety and pain reduction. Participants identified benefits of dual certification such as flexibility and a broader scope. In addition, barriers to integrated practice were described such as hospital culture, leadership's receptivity to integrated practice, clear roles, and professional identity. Barriers contributed to each participant's ability to provide integrated interventions. Participants offered a spectrum of integration use from no integration to full use of both child life and music therapy interventions.

Acknowledgements

I would like to thank Tracy Richardson, Ph.D., MT-BC, Judy Ross, CCLS and Annette Whitehead-Pleaux, MA, MT-BC for providing thoughtful guidance in the development of my thesis. In addition, I would like to thank my husband Steve and my daughters, Ruth and Grace for supporting me through the countless hours it took to write this manuscript.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Introduction

A nine- year old girl is in the hospital after suffering her first seizure. She is feeling fine now and does not understand why she is in the hospital. Later in the day, she will undergo an electroencephalogram (EEG). She does not understand what a seizure is or what an EEG is. The child life specialist helps her cope with the uncertainty by providing developmentally appropriate information about what a seizure is and helps her understand what to expect during the EEG. The child life specialist identifies the stress points and sequence of events of an EEG and shows her the medical materials such as the EEG leads. The child life specialist introduces medical play with a doll and allows her to be the doctor and the doll to be the patient. She places the leads on the doll's head. As a result of the child life preparation, she now understands why she is in the hospital and feels more comfortable with her upcoming EEG.

A three- year old boy sits in his hospital bed with his parents at his side as he deals with the side effects of chemotherapy. He is tired and very frail. The music therapist enters the room and begins to sing. She gives him the choice between a lollipop drum and a shaker. He chooses the lollipop drum and plays along with his dad while his mom takes pictures. He loves playing the drums with his dad. He smiles and tells the music therapist that music helps him to feel better.

The above examples highlight how children may need help in understanding their experiences and in developing ways of coping to minimize medical and psychosocial stressors associated with hospitalization, illness, or medical procedures. Medical and psychosocial

stressors can include: (a) pain related to symptoms of the illness or disease, procedural pain and surgical pain; and (b) anxiety associated with loss of control, choice and competence, change in appearance or abilities, fears that are typical of developmental stage, misunderstanding or lack of information related to hospitalization or illness or both, or separation from family members (Salmela, Salantera, & Aronen, 2010; Visintainer & Wolfer, 1975).

Research highlights the need for children who experience hospitalization or illness or both to develop coping strategies to minimize medical and psychosocial stressors (Li, Chung, Ho, Chiu, & Lopez, 2011; Sutter & Reid, 2012; Thompson, 2009). Li, Chung, Ho, Chiu, & Lopez (2011) and McLeod (2010) highlighted Lazarus and Folkman's (1984) conceptualization of coping strategies into two categories: problem-focused and emotion-focused coping strategies. Problem-focused coping strategies aim at the removal or reduction of the stressor and are demonstrated through information seeking, problem solving, and taking control. Emotion-focused strategies involve the attempt to reduce negative emotional responses caused by a stressor that is typically outside of a person's control and can include strategies such as distraction from the stressor, avoidance of the stressor and the use of self –control to keep calm.

A child's ability to develop problem-focused or emotion-focused coping strategies to handle the external and internal demands of hospitalization is dependent on a child's psychosocial and cognitive development and a child's culture (Li, Chung, Ho, Chiu & Lopez, 2011). Placing emphasis on developing healthy coping strategies not only helps children with a

current stressor but also has implications for future reactions to hospitalization into adulthood (Blount et. al, 2009).

Child life specialists and music therapists are two types of professionals who can help children develop adequate coping strategies to deal with medical and psychosocial stressors and minimize trauma that could impact a child's view of his or her future medical experiences. Child life specialists and music therapists assess a child's coping ability and offer therapeutic interventions to promote effective coping strategies for a child and the child's family.

The therapeutic interventions to promote effective coping that a child life specialist may offer include play, preparation, education, and self-expression activities (Sutter & Reid, 2012). Play interventions can include the use of medical play, therapeutic play, and play for normalization (Li & Lopez, 2008; Kohler, 2007). Preparation interventions are designed to help children and their families to understand and cope with upcoming procedures or surgeries. Education interventions can be used to inform a child and a child's family about a recent diagnosis (Thompson, 2009). Self-expression activities such as art projects or legacy building can help a child be able to express how he or she is feeling, an important component of coping with hospitalization and illness (Froelich, 1984).

To meet the basic needs of hospitalized children, music therapists offer music therapy interventions such as songwriting and improvisation, instrument playing, movement to music, music alternate engagement and music -assisted relaxation. Songwriting and improvisation can help a patient address feelings associated with hospitalization such as isolation, loneliness, and

coping with illness (Aasgaard, 2005; Dileo & Magill, 2005; Froelich, 1984). Instrument playing and movement to music can help decrease anxiety levels and help meet physical goals. Music alternate engagement and music-assisted relaxation help children to cope with the stresses of pain and procedures (Bradt, 2010; Edwards, 1999; Ghetti, 2011a; Klassen, Liang, Tjosvold, Klassen, & Hartling, 2008; Pfaff, Smith, & Gowan, 1989; Tan, Yowler, Super, & Fratianne, 2010; DeLoach Walworth, 2005).

A small number of professionals have chosen to become certified in both child life and music therapy to meet the needs of pediatric patients. Mondanaro (2005) wrote that with dual certification, a variety of interventions are available to the individual clinician that can offer multiple entry points in establishing a therapeutic relationship with patients and their families. Music therapy techniques as well as the use of other arts modalities such as painting, writing, play and movement can offer a child a wealth of opportunities to invite active participation in the hospital environment and facilitate coping skills.

Ghetti (2011a), another dual-certified clinician studied the lived experiences of dual certified child life and music therapy clinicians and found that participants benefited from having both certifications in the areas of clinical flexibility and continuity of care. Rode (1996) provided a descriptive study of the overall structure of a child life/ art therapy program while Leeuwenburgh et al. (2007) highlighted case studies of dual-certified drama therapists and art therapists. Mondanaro (2008) and Froelich (1996) have both described child life/music therapy working models for procedural support and crisis intervention.

While the current literature is helpful in informing the general practice of dual-certified clinicians, the integration of specific child life and music therapy interventions has not been fully explored. Understanding the specific integration of interventions would help dual-certified clinicians maximize the effective use of available child life and music therapy techniques to best meet the needs of the patients they serve and fill a need in the current literature. To provide clarity the definitions for child life, music therapy, and integration are provided below.

Definition of terms

According to the Child Life Council (2014b):

> Child life specialists are trained professionals with expertise in helping children and their families overcome life's most challenging events. Armed with a strong background in child development and family systems, child life specialists promote effective coping through play, preparation, education, and self-expression activities. (Child Life Profession, para.1)

Music therapy, according to the American Music Therapy Association (AMTA, 2013) is the "clinical use and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program" (Definition and Quotes about Music Therapy para.1). In a medical setting, music therapists assist patients with anxiety and stress reduction, non-pharmacological pain management, developing coping strategies to deal with hospitalization,

illness, and medical procedures, and by providing opportunities for emotional expression and active participation in treatment (AMTA, 2014a).

Dual-certified clinicians can choose to integrate the professions of music therapy and child life into their practice in a medical setting. Integration is defined as "the formation, coordination or blending of practices into a functional whole" (Integrate, n.d). The definition informs how a dual certified clinician uses music therapy and child life interventions in his or her practice.

Research Question

To inform the practice of dual-certified clinicians, the overarching research question is: "How are dual-certified clinicians integrating child life and music therapy interventions in clinical practice?"

Although child life and music therapy have both been used effectively to address the medical and psychosocial needs of pediatric patients there is little research to describe the integration of child life and music therapy interventions. Therefore, the purpose of this study is to provide a detailed description of the integration of music therapy and child life practices in pediatric settings.

Literature Review

In the year 2007, 2.1 million children required hospitalization (Hall, DeFrances, Williams, Golosinski, & Schwartzman, 2010). In addition, 1.8 million children required inpatient surgical procedures (Hall, DeFrances, Williams, Golosinski & Schwartzman, 2010) and an additional 3.2 million children experienced ambulatory surgical procedures (Cullen, Hall & Golosinskiy, 2009). The tremendous amount of children experiencing some type of hospitalization illustrates the importance of effective services to address the medical and psychosocial needs of pediatric patients.

Needs of Pediatric Patients

Medical. Infants, children, and adolescents who require medical treatment or hospitalization or both have a variety of medical needs. In 2007, pediatric patients were most commonly hospitalized for:1) diseases of the respiratory system such as acute bronchitis, pneumonia or asthma, 2) diseases of the digestive system such as appendicitis and noninfectious enteritis and colitis, or 3) injury or poisoning (Hall, DeFrances, Williams, Golosinski, & Schwartzman, 2010). While hospitalized, pediatric patients can require inpatient procedures. In 2007, the most common inpatient procedures were: miscellaneous diagnostic and therapeutic procedures and new technologies such as computerized axial tomography (CT scan) and respiratory therapy; operations on the digestive system such as endoscopy of the small or large intestine with or without biopsy or appendectomy; or operations of the nervous system such as a spinal tap (Hall, DeFrances, Williams, Golosinski & Schwartzman, 2010). Increased numbers of

procedures are done in ambulatory facilities with the common procedures being: operations on the ear such as tube insertion; operations to the ear, nose, mouth, and pharynx with the most common being a tonsillectomy with or without adenoidectomy; or operations on the musculoskeletal system such as fracture reduction or operations on muscle, tendon, fascia and bursa (Cullen, Hall & Golosinskiy, 2009). For many procedures, a child can experience the sensory-discriminative dimension of pain which deals with the intensity, duration, location and quality of the pain. Sensory-discriminative pain can be associated with necessary intravenous starts (IV) for anesthesia and physical pain associated with recovery from a procedure (Moayedi & Davis, 2013).

Psychosocial. In addition to sensory-discriminative pain, a child may have additional psychosocial needs associated with a procedure and/or hospitalization. Psychosocial needs can include increased risk of anxiety and depression, dealing with cognitive-evaluative and affective-emotive dimensions of pain and the need for adequate coping skills. A child's psychosocial needs and use of coping skills are based on an individual's developmental age.

Depending on developmental age, patients may experience high levels of anxiety associated with an illness's associated symptoms, pain and possible disability (Edwards, 1999). Feelings of anxiety may increase if the illness or injury has caused a change in appearance or restriction in a patient's autonomy and freedom to make choices (Salmela, Salantera, & Aronen, 2010). Children may feel anxiety associated with the anticipation of an upcoming procedure such as a port access. In addition, patients may experience feelings of anxiety associated with

separation from family members during hospitalization and the resulting changes in routine from the home environment (Brill, Cohen, Fauvre, Klein, Clark, & Garcia, 1987).

Anxiety can be found in children who suffer from chronic illnesses such as irritable bowel syndromes (IBS) or diseases such as cancer and children can also be at risk for depression (Li, Chung, Ho, Chiu, & Lopez, 2011; Reed-Knight, Hayutin, Lewis, & Blount, 2011). For example, adolescents seeking gastrointestinal (GI) care in outpatient clinics exhibited higher internalizing problems, lower adaptive and social skills and 81 % of adolescents suffering from recurrent abdominal pain (RAP) met the criteria for an anxiety or depressive disorder opposed to only 13.2 % in adolescents who did not have RAP (Reed-Knight, Hayutin, Lewis, & Blount, 2011). Li, Chung, Ho, Chiu, and Lopez (2011) also found in their study of 88 children 9-16 years of age diagnosed with cancer that half of the children admitted were at risk for depression.

In addition to anxiety and depression, a child may experience multi-faceted pain. A child can experience not only sensory-discriminative pain but affective-emotive pain and cognitive-evaluative pain. Affective-emotive pain deals with the perception of unpleasantness and the subsequent flight response and cognitive-evaluative deals with appraisal, context, cultural values and cognitive state. Each dimension interacts with each other and exhibits the ability to modulate pain perception (Moayedi & Davis, 2013).

Children who may experience anxiety, depression or multi-dimensional pain associated with procedures or hospitalization or both, need to learn how to develop coping strategies or strengthen existing coping strategies. Coping strategies enable a child to find ways to positively

function and deal with the various stress points associated with procedures and/or hospitalization. Coping strategies are individual to each child and are influenced by a child's developmental age.

Each developmental age is accompanied by psychosocial needs that are based on a child's level of understanding and ability to form adequate coping strategies associated with illness and/or hospitalization (Edwards, 1999). Stanford (2013) provided a developmental overview that explained a child's reaction to the stress of hospitalization, a framework for the developmental conception of illness and common coping strategies. The first age group infants 0-12 months learn and understand about the world based on their five senses and from the trusted caregivers he or she has formed attachments with. An infant does not have an understanding of illness making hospitalization stressful. Changes in routine, separation from caregivers, an unpredictable environment, and discomfort and pain can cause infants to react to feelings of anxiety and pain by protesting, responding in despair and detaching from surroundings. For example infants who do not have fully functioning GI tracts lose out on the benefits of oral feeding which encourages attachment behavior and socialization (Brill et al., 1987). Positive coping strategies for infants can include giving the infant comfort items from home, consistency of caregivers, feeding schedules and routines.

Children ages one to three, are motivated to be self-sufficient and are learning to have control over his or her bodily functions. The hospital environment can be restrictive to a toddler's independence and a toddler's understanding of hospitalization is that pain is a result of

misbehavior. Reactions to stress include the addition of temper tantrums, regression behaviors and negativism. Positive coping strategies for toddlers can include comfort items from home, learning to lie still, playing about separation such as peek-a-boo, establishing routines, and giving simple choices with medical care.

Moving from toddler to preschooler 3-6 years of age, a child desires to complete activities independently but still depends on the caregiver as a secure base. A preschooler's understanding of illness and hospitalization is dominated by an engagement in magical thinking, which means that he or she may believe that if he was near something cold than that is how he got a cold or an illness just happened by chance. A preschooler reaction to stress may include fears such as fear of pain, bodily harm and the emergence of magical thinking that they may have caused the disease to happen. Positive coping strategies for a preschooler can include planning for fears, playing with separation, providing active play to provide a sense of normalcy, use concrete non-threatening developmentally appropriate explanations, and offer a role in his or her care.

Moving from preschooler to school age 7-11, children begin to have a sense of self in relation to their peer group, still enjoy fantasy but understand reality and rules, are independent in most self- care and demonstrate an increased need for privacy. School age children understand illness in terms of contamination from an object or that illness enters the body through ingestion or inhalation. School age reaction to stress may include seeking information about their illness, attempt to be brave, passively accepts pain and attempts to communicate about their pain.

Positive coping strategies for school age may include the provision of concrete information related to a procedure or surgery, involvement in their care, opportunities for emotional expression, and addressing their fears.

The final developmental stage for childhood is adolescents 13-18 years old. At this age, adolescents are capable of thinking hypothetically and abstractly, believe that their experience is unique, and have the need to be defined as a unique individual. An adolescent's understanding of illness is both physiological and psycho-physiological. Illness is can be caused by the external but the illness can lie in the internal parts of the body and that illness can be impacted by one's mental state. Adolescent responses to stress can include becoming uncooperative with the health care team, can fear loss of control, can be withdrawn and have fear and anxiety about the unknown. Positive coping strategies for adolescents may include involvement in care and decision making, planning for the future, incorporating peer support, opportunities for emotional expression and helping others.

In addition to the patient experience, families are also affected by pediatric patients' illness and/or hospitalization. In the current environment of family-centered care in pediatric hospitals meeting the needs of a child's parents can have an impact on a child's response to hospitalization (Wells & Schwebel, 1987). In family-centered care, according to Macnab, Thiessen, McLeod, and Hinton (2000), families are recognized as having an essential role in the lives of their children, parental roles are supported and strengths are emphasized, normal family

patterns of living are encouraged at the hospital, and partnerships between professionals and families are promoted.

Despite the emphasis on family-centered care, hospitalization of a child can be stressful and cause parental feelings of anxiety (Johnson, Nelson, & Brunnquell, 1988). For example, parents of children with GI disorders demonstrated increased psychosocial symptoms including depression in the parents of recurrent abdominal pain (RAP) children and depression and anxiety in parents of IBD children (Hommel, McGraw, Ammerman, Heubi, Hansen, Dunlap, & Beidel 2010). The ability of families to deal with the psychosocial needs of their pediatric patients can impact overall wellbeing, quality of life and level of health care seeking by the patient and/or family. How a family copes can impact symptom severity, the course of the disease, and how the health condition affects various aspects of child development (Hommel et al., 2010).

In addition, parental anxiety can be a predictor of a child's adverse reactions to hospitalization (Koller, 2008). Sleep deprivation, lack of control, long hours of waiting and the sounds of the pediatric environment can contribute to parental anxiety (Wolfe & Waldon, 2009). Brill et al. (1987), included that parents with a child with a chronic illness on isolation may feel isolated themselves and parents are often unaware or do not acknowledge their own personal stress and anxiety.

Parental stress and anxiety can be associated with a common feeling of helplessness about not knowing what to do for their child and can cause parental role alteration, which was considered one of the highest stresses according to Johnson, Nelson, and Brunnquell (1988).

Educating parents about what to do to help their child developmentally through play, art and music could help to minimize parental role alteration. Due to the impact that a parent's anxiety can have on the child's hospital experience, an emphasis on supporting parents and equipping parents with tools to help minimize parental anxiety could be beneficial. Support services such as child life and music therapy can help meet the needs of parents during their child's illness or hospitalization or both.

Support Services to meet Pediatric Needs

Child Life. To help address the medical and psychosocial needs of pediatric patients and their families, child life is a support service offered in most pediatric hospital settings to minimize the trauma associated with hospitalization for children and families. The child life profession was created specifically by the American Academy of Pediatrics and considered a necessary service in pediatric healthcare (American Academy of Pediatrics, 2006).

A child life specialist is a content expert on child development for the treatment team and can provide insight into how trauma is experienced developmentally by a pediatric patient and its implications for a child's overall development and attitudes toward future health care experiences (Hicks, 2005). A child life specialist first conducts an assessment of a patient to determine the patient's needs and the needs of his or her family (Koller 2008). Upon determining the needs, a child life specialist offers interventions in three areas of competence; play, preparation, and education (American Academy of Pediatrics, 2006).

Assessment. To best meet the needs of patients Child life specialists first conduct an assessment. Koller (2008) found after an extensive review of the literature on how a child copes with hospitalization that four variables were identified and should be included in the child life assessment. The four variables were *child variables*, *family variables*, *illness variables* and *medical experiences*. *Child variables* that had a direct impact on a child's ability to cope with illness and hospitalization were a child's temperament, coping style and age. *Family variables* included parental anxiety and distress, family characteristics such as marital status, family size and family composition, socioeconomic status and parental presence and involvement. *Illness variables* include whether a child has a chronic or acute illness and the length of hospitalization. Lastly, a child's *medical experiences* were a factor, which included exposure to invasive procedures and previous hospitalizations.

Gaynard, Wolfer, Goldberger, Thompson, Redburn, and Laidley (1998) developed an assessment based on children and families vulnerability for experiencing stress during hospitalization. The assessment measured a patient's stress potential and was comprised of two dimensions; *stress vulnerability* and *health care variables*. *Stress vulnerability* included such factors as chronological and developmental age, response to current and previous healthcare experiences, coping skills and styles, cultural background, current understanding of illness and hospitalization, and family support. *Health care variables* included patient's diagnosis, nature of current and anticipated symptoms, anticipated treatment and procedures, course of child's recovery or deterioration and number and type of healthcare professionals involved in the

patient's care. After review of information from the two dimensions, an overall summary rating between one and five regarding how a child may experience stress in the hospital setting was given. The rating helped the child life specialists to prioritize which patients and their families were high risk and needed additional support.

While having working assessment models is helpful to inform a child life specialist's daily practice, Turner and Fralie (2009), through qualitative interviews, looked at *how* child life specialists were assessing patients in the reality of acute care. Participants responded that assessments were ongoing, informal and are often intertwined with a patient's plan, interventions and evaluation.

***Play*.** A child life specialist uses play as the creative medium to help assess the needs of children and how they are coping with illness and hospitalization. Play has been shown to help reduce anxiety; promote effective coping skills; aid the psychological preparation for children before, during and after medical procedures and promote family-centered care by educating and advocating for the needs of families (American Academy of Pediatrics, 2006). Child life specialists use three types of play; medical, therapeutic, and play for normalization with pediatric patients.

Medical play is child-directed and utilizes real and toy equipment to encourage the sharing of information with a pediatric patient in a developmentally appropriate manner (American Academy of Pediatrics, 2006). For example, for an infant playing peek-a-boo with doctor hats and masks allows an infant to adjust to the new way people look like in the hospital

(Stanford, 2013). A second use for medical play commonly includes the use of dolls. The dolls in conjunction with medical supplies are used as the patient and allow the child to have some control and make choices as to what is happening to the doll. It is an opportunity for a child to role play an adult role such as being a doctor or nurse. It is also an opportunity for a child life specialist to clarify any misconceptions a child may have about a medical procedure, illness, or reason for hospitalization and teach coping strategies (Webster, 2000).

A child life specialist uses therapeutic play to ease a pediatric patient's fear and anxiety (Child Life Council, 2012). Therapeutic play's main goal is to promote emotional wellbeing and a child's continuing development while in the hospital environment (Kohler, 2008). The use of therapeutic play encouraged greater cooperation and willingness to return to the hospital for additional treatment in patients (Kohler, 2008).

Lastly, play for normalization is an activity that is familiar for children and has been shown to promote coping skills in children (American Association of Pediatrics, 2006). Child life specialists are in charge of a hospital playroom, which helps to normalize the environment by offering developmentally appropriate, recognizable choices for children. The hospital playroom is also a place where patients can participate in self- expression activities such as arts and crafts and games. Play can help link a child's home to the medical home and help a child to feel safe (Webster, 2000).

Psychological preparation. Child life specialists provide psychological preparation for procedures. Psychological preparation uses developmentally appropriate nonthreatening

terminology, identifies potential stress points in a procedure and helps a child to plan and practice coping strategies. For example, a common stress point for a child during an intravenous start is the needle insertion or poke. A child life specialist can help a child understand the sensory aspects of the procedure such as the cold from the alcohol swab to clean the skin and then plan and practice a coping strategy during the needle insertion such as count or hold a parent's hand. Child life specialists help children to deal with the stress points of a variety of procedures such as blood draws, intravenous starts, initial anesthesia, and lumbar punctures (Squires, 1995).

Psychological preparation can prevent increases in anxiety (Squires, 1995). Schwartz and Albino (1983) studied the effect of preoperative preparation on stress reduction in children having dental surgery under general anesthesia. Participants were three to four years of age and were randomly assigned to a control group, which received no preoperative preparation, a play therapy group unrelated to hospital or surgical procedures or a group that received a preoperative play session focused on hospital and surgical procedures. Results found from behavioral observation scales for cooperation and upset at seven stress points: admission, nurse's examination, pediatric medical examination, blood test, preoperative injection, transfer to surgery, and induction that the children in the third group experienced less upset and more cooperative behaviors. Results indicate that preoperative play sessions focused on hospital and surgical procedures could help minimize stress and anxiety. Li and Lopez (2008) looked at the effectiveness and appropriateness of a play intervention with 7-12 year old patients needing surgery. Li and Lopez developed a theoretical framework based on Lazarus and Folkman's

approach to Cognitive, Appraisal and Stress, which identified the source of the stress as surgery and how a child perceived the stress of surgery. Did the child after primary appraisal of the surgery find it as a harm or threat or challenge? Then upon secondary appraisal how was the child going to handle the stress of surgery? Li and Lopez determined that a child's appraisal of the stress of surgery was based on a child's psychosocial development based on Erickson's developmental theory and a child's cognitive development based on Piaget's developmental theory. Based on the developmental theories of Erikson and Piaget, a child was able to determine coping strategies either problem focused coping or emotion-focused coping. During the medical play session a week before the scheduled surgery, problem-focused coping was addressed in providing procedural and sensory information through a tour visit and doll demonstration to educate them on the induction process. The demonstration was hands on and allowed the children and their accompanying parents to practice the steps and handle the medical equipment. Emotional-focused coping strategies were addressed by helping the child act out any unpleasant feelings through doll demonstration. The medical play experience lasted one hour and helped reduce anxiety in the children according to results of the State Anxiety Scale for Children (CSAS-C), reduced anxiety in parents according to the State Anxiety Scale for Adults and the Postoperative Parents' Satisfaction Questionnaire (PPSQ).

Following psychological preparation, a child life specialist can offer support during the actual medical procedure. Dependent on the coping strategies determined during psychological preparation, a child life specialist can provide distraction techniques that are either active or

passive. Active distraction can include interactive toys or electronic games, virtual reality (VR), controlled breathing and guided imagery/relaxation. Passive distraction can be listening to a story or music, watching television or a movie. Koller and Goldman (2012) conducted a critical review of available pediatric research involving distraction techniques for children undergoing a procedure to determine best practices for distraction. Koller and Goldman did not find specific distraction techniques either active or passive to suggest best practices for distraction. Instead, additional research was suggested to address the impact of patient choices of distraction techniques, the role of temperament, and the degree of pain and anxiety associated with the procedure. A child life specialist can also provide post processing after a procedure to help a child to talk about what went well and/or what he or she would have done differently if there was to be another procedure.

Education. In addition to play and psychological preparation, a child life specialist can help educate and support pediatric patients and his or her family. A child life specialist can provide education of a recent diagnosis as well as help with educational needs during extended hospitalization as well as provide school visits to help a child who has experienced a recent diagnosis such as cancer transition back home and into the school environment (Thompson, 2009).

Child life specialists can also offer support to siblings by educating a sibling on a patient's recent diagnosis and also can help prepare a sibling to say good bye to a brother or sister who is going to die or help explain a sudden death of a his or her sibling. Child life

specialists help to support family centered care by providing education to families on how their child responds to an illness and hospitalization, help parents to maintain their role as parents in the hospital environment, create opportunities to keep families connected through play sessions with their child, and aid families who need bereavement support (American Academy of Pediatrics, 2006).

Music Therapy. While child life uses play, psychological preparation, and education to reduce the impact of illness and hospitalization on a child and a child's family, music therapy uses the medium of music as a way to reduce the impact of illness and hospitalization on pediatric patients and families. Music therapy is a support service offered in many pediatric settings to minimize trauma for children and families. Music therapy is recognized by the American Academy of Pediatrics as a treatment for anxiety and pain reduction and to help decrease disruptions in a child's development due to hospitalization (American Academy of Pediatrics, 2006; McClafferty, 2011). A music therapist in a medical setting first conducts an assessment of a patient to determine the patient's needs and the needs of his or her family. Upon determining the needs, a music therapist offers musical interventions in four areas of competence; encouragement of coping skills, anxiety and stress reduction, non-pharmacological pain management and the provision of procedural support (before, during, or after a procedure) while fostering healthy development in patients.

Assessment. The specific intervention is determined first by a music therapist's assessment of the patient's needs. An assessment takes into account the environment and how it

can be modified, the affect of the patient, information from the patient's chart, family beliefs about music, patient's musical preferences and music history (Whitehead-Pleaux, 2009). In addition, a music therapist's assessment is tailored to the daily routine of a music therapist in the hospital environment. A music therapist typically has a varied caseload in multiple areas of the hospital and exposure to patients is not as frequent as the Child Life Specialist who typically has 15-20 patients in one area of the hospital. Douglass (2006) developed an assessment, which was comprised of physiological information, physical considerations; cognitive skills; and social and emotional behaviors called the Pediatric Inpatient Music Therapy Assessment Form (PIMTAF) to help music therapists in pediatrics. Standley and Walworth (2010) developed an assessment for music therapists working in the NICU called the NICU Developmental Checklist for when infants are discharged and can be continued during music therapy homecare. Waldon and Broadhurst (2014) conducted research to test the validity and reliability of the Music Attentiveness Screening Assessment (MASA) which is an assessment tool designed to identify appropriate pediatric patients for music alternate engagement for procedures. During the assessment process, a music therapist can also address a child and family's ability to cope.

Coping. Robb (2003) recognized the importance of coping and developed a contextual support model for coping. Within this model, contributing factors that may prevent adequate coping are the stress of the hospital environment, a child's personal attributes such as age, cognitive development and social development. The contributing factors influence a child's appraisal of the stress and therefore affect a child's ability to cope. Music therapy can be offered

as a contextual support intervention that motivates a child to engage, make choices and initiate communication and experimentation. The outcome of the contextual support affords a child positive outcomes in coping and in long term healthy development.

Researchers recognize that the hospital environment can threaten a child's competence, autonomy, and affect a child's ability to cope. Froelich (1984; 1996) emphasized the importance of a child being able to express thoughts and feelings about his or her hospital experience to minimize trauma and promote healthy coping. Being able to put thoughts into words can be challenging for a child. A music therapist can invite children to express themselves in non-verbal ways through improvisation both on instruments and using their voices as well as song writing to encourage the needed expression of feelings by the pediatric patient. Songwriting can help a patient with feelings associated with hospitalization such as isolation, loneliness, and coping with illness (Aasgard, 2005). Songwriting can also help parents communicate coping strategies to their children (O'Callaghan & Barry, 2009). In a study comparing the effects of music therapy to medical play therapy, school age hospitalized patients were able to talk about their hospital experience with increased verbalizations during music therapy sessions (Froelich, 1984).

To facilitate healthy coping skills in children and families, music therapy has also demonstrated the ability to elevate mood with pediatric patients. Hendon and Bohon (2007) found that patients exhibited significantly more smiles during music therapy than during play therapy. Smiling can increase children's positive mood and can assist patient coping. Ayson (2008) offered patients and families individualized music interventions that elevated mood and

contributed to a positive outlook in the hospital environment. Parents as well as patients experienced elevated mood by seeing their children happy which supports the importance of parent involvement to promote healthy coping for patients. Barrera, Rykov, and Doyle (2002) found that the effects of interactive music therapy showed a significant improvement in how children with cancer were feeling before and after music therapy through the use of pre and post-tests. Patients made comments about the music making them feel happy and one patient mentioned that he or she had forgotten how sick he or she was for a moment.

Anxiety, stress and pain reduction. Music therapy's ability to elevate mood not only helps a patient cope with hospitalization and illness but also elevates mood and reduces physiological arousal to reduce anxiety (Ghetti, 2011b). According to the American Academy of Pediatrics, recommends expressive therapies such as music therapy for anxiety reduction (American Academy of Pediatrics, 2006). A reduction in anxiety addresses the affective-motivational dimension of pain and can directly impact the way a child perceives pain and the opposite is also true; the fear and experience of pain can result in a higher level of anxiety (Klassen, Liang, Tjosvold, Klassen, & Hartling, 2007). Music therapy interventions can address patient anxiety with music that is culturally developmentally appropriate, facilitates self-expression, choice and control, offers comfort and has the ability to quickly establish rapport with patients and families (Edwards, 1999; Ghetti & Walker, 2008; Whitehead-Pleaux, 2009). Chetta (1981) found preoperative anxiety levels can decrease for patients when music therapy is

used in conjunction with verbal information prior to surgery. Music was used in the form of relevant songs that reviewed the information covered in the informational session.

Preparation, procedural support and post-procedural support. A reduction in anxiety through music therapy can help a patient in preparation for a procedure. Music-assisted relaxation (MAR) and music alternate engagement (MAE) have been effective music therapy interventions for procedural preparation (Ghetti, 2011b). MAR uses specific music selected for its properties to illicit relaxation in patients. Tempo, predictability of melody, and dynamics offers the patient a safe musical container to learn deep breathing, progressive muscle relaxation and to evoke imagery (Ghetti, 2011b). The music in MAR can slow heart rate and/or respiration rate by entrainment to the music. Slowing physiological systems can promote relaxation and decreased muscle tension can help in reduction of pain perception (Ghetti, 2011b). Robb, Nichols, Rutan, Bishop, and Parker (1995) found a significant decrease in preoperative anxiety in twenty pediatric burn patients, ages 8 to 20 years prior to surgery. MAR interventions included music listening, deep breathing, progressive muscle relaxation, and imagery. Pelletier (2004) performed a meta-analysis on the effect of music on decreasing arousal due to stress which included MAR and found the group that benefited the most were patients under the age of 18. The literature, which highlighted some success with MAR has found that MAE demonstrates higher success rates in the pediatric population (Waldon & Broadhurst, 2014).

MAE is an intervention that emphasizes engagement with the therapist and the music using patient preferred music. The goal of MAE is to provide active music making as alternate

engagement for the patient to decrease pain and anxiety (Tan, Yowler, Super, & Fratianne, 2010). MAE has five choices for the patient: 1) active music listening to familiar music choices, 2) therapeutic singing to familiar songs with the therapist, 3) cued response either original or created response to a song phrase, 4) music with a deep breathing exercise and 5) therapeutic instrument playing (Tan et al., 2010). In MAE, the iso-principle can be used to match the patient's mood and gradually modulate the patient's mood to a desired state (DeLoach Walworth, 2005). MAE can address the cognitive-evaluative dimension of pain allowing a patient to makes choices and take ownership of his or her experience.

After the reduction of anxiety during preparation, a music therapist can also assist a patient during a procedure. A music therapist can either continue to provide relaxation if the goal is anxiety reduction or focusing opportunities if the goal is to reduce pain perception (Edwards, 1999). Ghetti (2011b) developed a working model for music therapy use during procedural support. The model emphasized the music therapist's constant assessment of the patient responses and how the music therapist can respond by refocusing the intervention lens to meet a patient's needs in the moment. Music therapy used in procedural support is especially effective with children age birth to four (Darcy Walworth, personal communication, 2010). According to the American Academy of Pediatrics (2006) there are almost twice as many children who are hospitalized in the birth to four-year old range than in the five to fourteen -year old -range. While Walworth found procedural support especially effective with children age birth to four, Whitehead-Pleaux, Zebrowski, Baryza, and Sheridan (2007) found that subjects 15 years and

older experienced the greatest decrease in behavioral distress from music therapy during procedural support for burn dressing changes versus the youngest in the study of 7 years.

In addition to burn dressing changes, a music therapist can successfully provide music therapy assisted procedural support for echocardiograms, computerized tomography scans (CT), intravenous starts, ventilation, injections, heel sticks, extubation, EEG's, echocardiograms (ECG), lumbar punctures and immunizations (DeLoach Walworth, 2005; Loewy, Hallan, Psych, Friedman, & Martinez, 2006; Malone, 1998; Nguyen, Nilsson, Hellstrom, & Bengtson, 2010; Swedberg, 2011).

If procedural support were implemented nationwide as it is implemented at Tallahassee Memorial Healthcare in Florida, the demand for music therapists would increase significantly due to the money saved on sedation and recovery costs. In a year of using music therapy for procedural support for 92 ECGs with a 100% success rate led to a total savings of $7,005.80. The savings for a large hospital such as The Children's Hospital of Pittsburgh who averages 600 ECGs could be roughly $228,450.00 a year. The money saved in procedural support could fund music therapy positions in pediatric hospitals nationwide (Deloach Walworth, 2005).

Following a procedure or surgery, a music therapist can address anxiety and pain related to recovery. The research base demonstrates efficacy in the use of music therapy interventions as a method of pain management for patients who experience the multidimensionality of pain (Mondanaro & Sara, 2013). Bradt (2010) studied the use of music entrainment on postoperative pain perception with pediatric patients and found large decreases in pain intensity. In addition to

pain reduction, the music therapy sessions seemed to have mood enhancing effects by self-report from participants. In children with cancer undergoing lumbar puncture, music therapy in the form of music listening lowered pain as well as heart and respiratory rates during and after the procedure (Nguyen, Nilsson, Hellstrom, & Bengtson, 2010).

Fostering healthy development and relationships. In addition to helping patients through the anxiety and pain that can be associated with procedures, illness and surgeries, music therapists can also help foster healthy development and family relationships through normalizing the environment and developmental support. Music therapy can normalize the hospital environment for children by providing therapeutic interventions that encourage sensory and motor development, expression and social interaction. When considering appropriate music interventions, a music therapist is aware of patient's current developmental level, a patient's music abilities, and any special needs that may be a result of illness (Barrickman, 1989). Kennelly (2000) discussed how pediatric patients find music engaging and as a result music is an effective tool to stimulate developmental skills. Music also can have a specialized role in meeting the needs of developmentally delayed patients.

Due to frequent or extended hospitalizations, pediatric patients may need educational support to continue healthy development. Music can help reinforce pre-academic activities (Gfeller, 1992). In addition, music therapy can naturally promote social interaction and bonding between patients and families (O'Callaghan & Jordan, 2011).

Both child life professionals and music therapy professionals address the psychosocial needs of pediatric patients and aid in minimizing the trauma associated with hospitalization. Due to the similarity in roles with child life using the medium of play and music therapy using music as a medium, overlapping roles can occur.

Overlapping Roles of a Child Life Specialist and a Music Therapist

Similar roles can lead to overlapping role expectations and misunderstandings in areas of scope of authority and responsibility, which can lead to tension among members of the treatment team. Darsie (2009) found in particular, an area of potential role conflict for music therapists in the area of distraction for procedural support, which was considered one of the primary job components of a child life specialist. Perceptions from additional staff such as nurses and doctors differed in level of importance from the perceptions of music therapists in the areas of provision of music for entertainment, importance of music therapy assessment, goals and procedural support.

Cole, Diener, Wright, & Gaynard (2001) studied the perceptions of child life specialists and found that child life professionals viewed their responsibilities differently than other members of the interdisciplinary team. Among discrepancies were the value placed by staff on child life specialists' ability to amuse and entertain patients and the value child life specialists placed on providing family support. Due to the possible overlap, it is important that role definition for music therapists and child life specialists be established, communicated and accurately perceived (Darsie, 2009). Being, Kemper, Martin, and Woods (2006) found that when

the role of music therapy is clearly defined, staff attitudes are not barriers to the provision of music therapy services. In addition to overlapping roles, both professions share similar educational backgrounds and training (see Table 1)

Table 1

Education and Training of Child Life Specialists and Music Therapists

	Child Life	Music Therapy
Bachelor Degree Programs	40	73
Minimum Clinical Internship hour	480	900
Clinical Internship Sites	109	23*

*Does not include University Affiliated Sites

Degree programs and internship numbers highlight the access to training in music therapy versus child life and offer some interesting numbers that may pose a challenge to being able to increase music therapy's presence in the pediatric hospital setting. At this time, music therapy is offered in almost twice as many colleges as child life but the access to internship opportunities is significantly less. There are 23 music therapy internships available for the pediatric hospital setting and there are 109 internships available in child life (AMTA, 2013; Child Life Council, 2013).

Although MT and CL shared similar backgrounds and training requirements, they differ in the overall prevalence of each in pediatric healthcare (see Table 2). It is apparent that the child life profession has a larger prevalence with 450 Child Life programs versus 77 music therapy programs.

Table 2

Overall Prevalence and Programs in Pediatric Hospital Settings

	Child Life	Music Therapy
Number of professionals	4570	5653
Prevalence in hospital	450 CL Programs	77 MT Programs

Prevalence in Pediatric Healthcare

When looking at child life versus music therapy in the pediatric hospital setting, it is important to note that the child life profession was created specifically for the pediatric healthcare environment. The child life profession began in the 1920's and is recognized by the American Pediatric Association as a necessary service for patients in pediatric healthcare (American Academy of Pediatrics, 2006). Child life specialists are prevalent and accepted in pediatric hospital settings with currently 450 child life programs nationwide (Ghetti, 2011a). The child life profession, while having a smaller number of undergraduate degree programs, has five times more available internships than the music therapy profession. Child life specialists also are

larger in numbers in pediatric hospitals with a patient to child life specialist ratio of 15-20 patients to one child life specialist (Ghetti, 2011a).

Music therapy, however, does not seem to have gained this level of acceptance. While the field of music therapy is larger in numbers, music therapy serves a wider patient population. After an extensive Internet search, 77 pediatric programs were located in hospital settings. For the music therapist who is interested in working in the pediatric healthcare setting, the challenge of a much smaller identity and presence is a reality in the field. For example, Cincinnati Children's Hospital Medical Center has 75 child life specialists and only five music therapists with the department managed by child life specialists. Children's National Medical Center in Washington, DC has 20 child life specialists and only one music therapist. These numbers highlight that while music therapy as a profession is larger, its presence is substantially smaller in the pediatric hospital setting.

Dual certification: Integration of music therapy and child life

Due to the prevalence of the child life profession in pediatric healthcare and the current variety of related college degrees accepted to become a child life specialist, music therapists interested in pediatric healthcare can benefit from the presence of the already established profession of child life and choose to pursue dual certification. Currently, there is a small cohort of dual certified clinicians.

Ghetti (2011a) looked at the lived experiences of dual certified clinicians and found that most agreed that having both certifications offered flexibility and continuity in their practice of

music therapy. Participants agreed that the child life certification and music therapy certification shared a similar philosophy and interaction and having both certifications provided an increased range of tools to meet patient needs. Participants also commented that having the child life certification increased comfort in the delivery of family centered education, improved their professional marketability and increased job opportunities. Though the number of dual certified is small in relation to the body of music therapists, it is an option for a music therapist who seeks employment in a pediatric hospital.

In Ghetti (2011a), the recommendation for further study of the dual certified music therapists/child life specialists was discussed with particular emphasis on the specific ways that dual certified music therapists/child life specialists integrate both practices in their clinical work. Limited research and literature has been written on how clinicians integrate practice specifically. Due to the similar and potentially overlapping roles, it is relevant to look at specific integration practices of dual certified clinicians.

Integration of clinical practice

To *integrate* is defined as "to form, coordinate, or blend into a functioning or unified whole" (Integrate, n.d). At Beth Israel Hospital, a clinical internship in child life is offered to music therapists pursuing dual certification. The internship is music therapy- based within the framework of child life theory and participants are eligible to become certified in child life. The internship integrates child life and music therapy practices. Mondanaro (2008) coordinates the internship and has written on the integration of practices. His working model has three domains;

psycho-education, procedural support, and psychotherapeutic support. The working model includes child life psycho-education and verbal processing during the psycho-education and music therapy interventions for procedural support and psychotherapeutic support. The working model was successful when implemented with 800 pediatric epilepsy patients. Mondanaro (2005) also wrote on the use of integrated practice in the area of bereavement where within child life philosophy, a dual certified clinician has the malleable use of music therapy interventions as well as the use of other arts modalities such as movement, painting, writing, and play to aid a bereaved child to actively express feelings. Lastly, Mondanaro and Needleman (2011) highlighted the dual certified role when working in conjunction with social work in family-centered care. Social work focused on the psychosocial assessment of the family while the music therapist focused on the pediatric patient and his or her siblings. The assessment stage of treatment was discussed as a creative approach that emphasized a patient's understanding of illness and hospitalization using verbal and non-verbal expression through the use of music, art, dance-movement, drama, and play therapies to encourage active participation and positive coping in his or her care.

Froelich (1996) is a pioneer in the field of dual certified music therapists/child life specialist. Froelich outlined a crisis intervention model, the effect that crisis can have on a child and his or her family, and how a creative arts approach can help to encourage verbalization and minimize the trauma associated with illness and hospitalization. The crisis intervention model was built on the premise that life can be enhanced by crisis.

Leeuwenburgh et al. (2007) wrote about the incorporation of child life and creative arts into one service. Case studies of dual certified art therapists and drama therapists are highlighted. For example, a dual certified drama therapist held a weekly psychosocial group addressing the needs of children with diabetes. The children entered a world of imagination and travel to Diabetes Island where they learn to cope and treat their disease.

Lastly, Rode (1995) highlighted an art therapy and child life program and the importance of meeting the psychosocial needs of pediatric patients through creative means. This program was comprised of 80% dually certified staff in art therapy and child life. The program was developmentally focused, and included family centered care that encouraged creativity from patients to address psychosocial needs. In offering a variety of creative arts and play, the dual-certified therapist offered the possibility of multiple entry points in the therapeutic relationship.

Further study of integrated practices could inform the practice of current dual certified clinicians and could address an increasing interest from the music therapy community in the child life profession to increasing clinical knowledge and to best meet the needs of pediatric patients in pediatric healthcare settings (Ghetti, 2011a). The purpose of this study is to describe the integration of music therapy and child life practices in pediatric settings.

Methods

Design

The design of this investigation is a qualitative descriptive research study. Qualitative descriptive study is a method of choice when the desire of the researcher is to provide straight descriptions of phenomena (Sandelowski, 2000). Sandelowski (2000) coins the term *basic* or *fundamental descriptive design*, which uses a level of description that is low-inference in interpretation in comparison to phenomenological or grounded theory description. The presentation of the description is given in everyday language and offers a comprehensive summary of the phenomena studied. Individual interviews will be utilized to study the clinical practice of dual-certified clinicians.

Participants

Participants were dual-certified child life/music therapists currently practicing in pediatric healthcare. Dual certified participants carry both the music therapist board certified (MT-BC) credential and the certified child life specialist (CCLS) credential. Purposive sampling of participants was used. Participants were recruited from the list of MT-BCs available from AMTA (2014b) *Find a music therapist* on the AMTA website and from the list of current CCLS's from the Child Life Council (2014a). In addition, an extensive Internet search of pediatric hospital websites was conducted to locate dually certified clinicians who were not current members of AMTA. Once identified, participants were individually contacted via email or the Inmail feature of LinkedIn on the individual's profile. Interested participants were emailed

informed consent and the interview guide questions to view before scheduled interview. Out of nineteen participants invited to participate in the study, six participants accepted.

Procedures

Potential participants were contacted by email and were asked to respond within seven days. Within the initial email, a detailed description of the purpose and requirements of the study were included. Upon acceptance of participation, a document for informed consent and confidentiality was sent via email to sign and return. Each participant completed a recorded 20-45 minute phone interview. Interviews were scheduled at the convenience and time availability of the participant and researcher.

Data Collection

The data collection method was qualitative personal in-depth interviews. The personal interviews were semi-structured following a topic guide so that each participant was asked the same questions (see Appendix A). Each interview conducted was audio recorded over the telephone. The participants' interview responses informed the analysis of the research question "How are dual-certified clinicians integrating child life and music therapy interventions in clinical practice?"

Data Analysis

Qualitative content analysis was used to analyze the data. Qualitative content analysis is a method that systematically describes the meaning of the data studied. Qualitative content analysis is concerned with the underlying content of data. Data were categorized in a coding

frame comprised of several main categories from the topic interview guide and corresponding subcategories. The subcategories were data driven and were added after interviews were completed. The data were put into units of coding which underwent a process of revisions of the coding frame (Schreier, 2012) (see Figure 1).

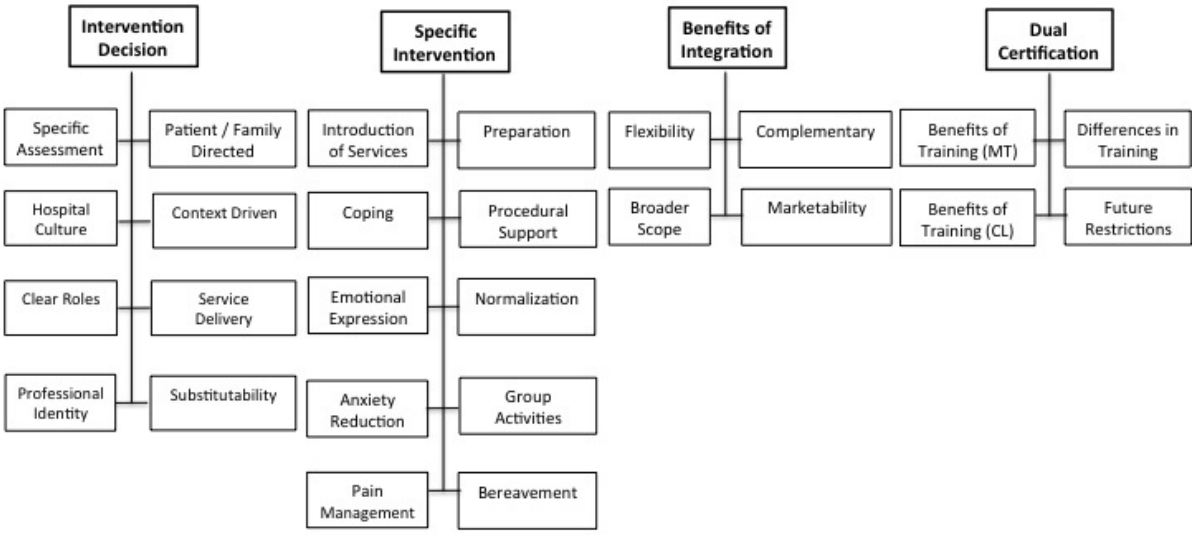

Figure 1. Finalized main coding frame represents the data collected from the in-depth interviews. The main coding frame highlights four categories and each category's respective subcategories.

Qualitative content analysis was comprised of four steps (Schreier, 2012). Step one *selecting*, allowed the researcher to identify data that were relevant and irrelevant to the research question. Relevant and irrelevant were clearly defined before assigning data to either category. Step two, *structuring and generating*, provided direction for how data were analyzed. Data analysis could be concept-driven or data- driven or both. The coding frame was structured using the interview topic guide as a framework and used both concept-driven and data- driven analysis.

Step three, *defining,* required the researcher to clearly define the categories that were determined in step two. Clear definitions made analysis reliable. A clear definition included three parts; a name, a description, and examples of the category derived and quoted from the data. The final step, *revising and expanding,* allowed the researcher to revise the coding frame to make sure main categories are not overlapping and that subcategories continue to be mutually exclusive. Data were then segmented into units of coding to put on the coding frame.

Ethical Considerations

Participants were informed of the purpose of the study. Participants were given the choice to give verbal or written consent. Each participant maintained anonymity by having a researcher-assigned number. During the in-depth interviews the researcher avoided leading questions, withheld sharing personal impressions, and adhered to the questions in the interview protocol. The researcher received IRB approval by applying for an exempt status through Saint Mary-of-the-Woods College and received approval. Only the researcher has access to the completed interview transcriptions and the transcriptions will be stored on a zip drive for a period of five years after final submission of the current study.

Researcher Bias

The researcher is currently seeking dual certification in child life and is a board certified music therapist and therefore is interested and believes in the benefit of dual certification and integrated practice. As a result, the researcher's bias could impact how data is interpreted from

participant interviews. Researcher attempted to minimize bias using qualitative content analysis to analyze data.

Results

The six participants came from a variety of current job positions (see Table 3). The variety of current job positions provided a spectrum of integration practices from full use of integration (e.g., Participant 1) to no use of integration (e.g., Participant 6). The concept of a spectrum will give a framework to the results found through data analysis.

Table 3

Current Job Position of Participants

Participant 1	Participant 2	Participant 3	Participant 4	Participant 5	Participant 6
Hired for dual certification as a child life specialist	Hired as child life specialist	Hired as child life and creative arts director	Hired as a music therapist	Hired as a music therapist	Hired as an administrator and educator

Data analysis was conducted on each interview question from the topic interview guide (see Appendix A). Each interview question provided a starting point to the generation of categories and subcategories based on interview responses. Through the use of segmenting each participant's transcripts, codes were assigned to each participant. For example, participant one's first segment of text was assigned the code 1.1 (see Table 4). Each unit of coding was then assigned to a subcategory on the coding frame. The coding frame is separated into four different categories; 1) intervention decision, 2) specific intervention, 3) benefits of integration and 4)

dual certification. For definitions of each category and each category's subcategories see Appendix B.

Table 4

Coding units onto coding frame

Category 1 - Intervention Decision

Unit number	Subcategory 1	Subcategory 2	Subcategory 3	Subcategory 4	Subcategory 5	Subcategory 6
1.1			1.1			
1.2		1.2				
1.3		1.3				

Category 1 – Intervention Decision

Category 1 entitled intervention decision was defined by the act of the clinician deciding how to intervene. There were a number of subcategories that were discovered when participants were asked the question "In your daily work, how do you make the decision about what intervention (MT or CL or combined) to use with a child?"

When making an intervention decision, a dual-certified clinician does an assessment of the situation and then generates options to provide the most appropriate intervention. When a participant was conducting an assessment of the situation, there were subcategories that impacted the degree of integration a participant would use. Subcategory 1 (specific assessment) and subcategory 2 (hospital culture) were common themes among participant 1 through 5.

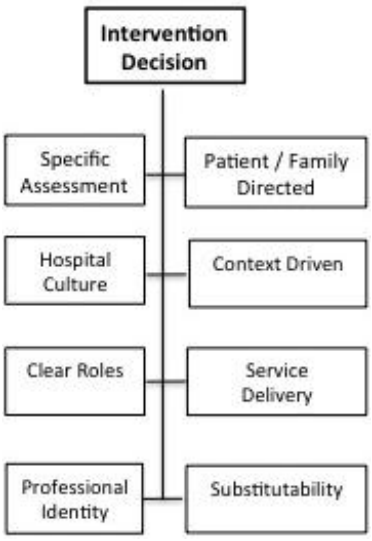

Figure 2. Coding frame for category 1 - intervention decision represents the themes that emerged from the data that influenced the participants' decision making.

Specific assessment. During the specific assessment of the patient and family, dual certified clinicians assessed patient and family coping and understanding of their hospitalization. Assessment of patients was ongoing and daily. When assessing patients, participants were asked if they use both child life and music therapy during assessment. Participants 1 through 5 responded yes to using both child life and music therapy to assess patients. Participant 4 stated the following:

> It is really a mixture of asking the appropriate questions that find out what they understand in terms of their hospitalization and their illness, which is that child life side then the music therapy side is incorporating the music and seeing how they interact through our music therapy interventions so I integrate both pretty much all the time for assessment. (Participant 4)

When asked if participants were using a specific assessment tool, Participant 1, 2, 4, and 5 were not using specific assessment tools. Participant 3 used an assessment developed at the hospital stating:

> There are things that we assess for that nobody else on the medical team is looking at so that's why we've sort of developed our own homegrown assessment. In part because we're acute care and so when you get into the average length of stay, it's relatively short turnaround and so that's one that we do want to make sure we are picking up this information but we don't want to have something that's so intensive that we can't complete in a time sensitive manner.

Hospital culture. Hospital culture was a theme among all six participants that influenced the intervention decision. The hospital culture and how the staff understands and values the role of a dual certified clinician were reflected in the data analysis. For example, Participant 1 described her experience with staff and their perception of her role. "More people approach me as a child life specialist except when it comes to developmental delay. I am often referred to our patients with severe developmental delay for auditory stimulation and also often referred to for autistic patients."

Participant 2 described the challenge of being called by nursing when a child's pain has escalated. "It is obviously not helpful if you get paged while a child is screaming and your nursing cohort says fix it." Participant 2 also described the benefit of staff seeing her work and the positive impact it can have on staff's perception of her role:

> It is really cool to hear the feedback from the anesthesiologist. I had one anesthesiologist one day, a child was really calm and relaxed and was drifting off to sleep and the anesthesiologist turned to me and said "music therapy is better than Ativan. Can you come back with me to my other OR?"

Within the hospital culture is the leadership and how open the leadership is to the integration of both practices can also encourage or inhibit the use of a truly integrated approach to intervention. Participant 6 discussed the impact of hospital leadership and how the leadership made the intervention decision for her:

> I would say leadership to be open to integrating the two practices. It is a little controversial in child life to have someone dual certified because of territory and because most often child life departments are run by child life specialists not someone who is dual certified who is saying, let's do the whole package and we want to use the scope of all your skills…Originally, I got child life certification because I really wanted to use the concept of integration, this idea of this full skill set and for whatever reason it never looked that way. It was typically not up to me I can tell you that much.

Participant 6 introduced the idea of integration in terms of a spectrum where she was on one end with little or no integration. Her data generated the subcategory 3, clear roles, established by hospital leadership that influenced her ability to provide integrated interventions.

Clear roles. Clear roles for Participant 6 prevented her from making integrated intervention decisions:

> For the most part in my career for whatever reason most of my career both in child life and music therapy; it was really wearing one hat or the other. There was a very clear distinction when I was doing music therapy and when I was doing child life. For example, I worked at a pediatric hospital for about three and half years and my job title was child life specialist and there was a music therapist on staff so it was very rare that I integrated specifically music therapy.

After initial assessment of the situation, there were a number of factors that appear to have influenced the options that a participant had in choosing the best intervention. The subcategories that emerged from data analysis were professional identity, patient and family directed, context driven, service delivery and substitutability.

Professional identity. Professional identity was defined as the process by which a person integrates his roles as well as diverse experiences when looking at making an intervention decision. For example, Participant 1 stated, "I do feel I am hired as a child life specialist first and I am hired under a child life program. My supervisor is an art therapist as well. She is dual so she also wanted somebody for the position who was a dual certification."

Participant 2 was hired as a child life specialist mentioned her struggle with her professional identity after receiving her child life credential:

> I think it becomes almost I don't know going back to thinking about when I was just beginning and had just become dually certified, I kind of had an identity crisis and I was

like, what am I doing, am I a music therapist or am I a child life specialist and then it occurred to me that I do not have to choose. (Participant 2)

Participant 4 was hired as a music therapist. “I am the only music therapist but there are other child life specialists. My first go to would be music therapy and then if necessary I would bring in the child life intervention.”

Participant 5 was hired as a music therapist. “I have been a music therapist far longer than I have been a child life specialist and so that is more ingrained in my being.”

Patient and family directed. When generating options to make an intervention decision, the patient and/or family can direct and influence a participant’s decision. Participant 5 mentioned that it was the child that made the decision about what intervention she would choose and whatever the child brought to her was how she decided what to do. “It’s a progression that evolves from the child using the resources that I have.” The analysis revealed that participants focused on the needs of the patient and family and honored their autonomy as much as possible.

Context driven. Each participant’s options were also context driven. Participants mentioned that: “It really depends on the situation.”; “Whatever the situation calls for.”; “Sometimes it even had to do with being caught in the moment and sort of what I had on me.”; “If it is specific to child life and a child life specialist is not available then I will go with the child life outlet specifically”.

Service delivery. Service delivery was a subcategory that emerged from Participant 3 who discussed the impact of the deployment of services on intervention decisions. Depending on how a participant is hired can affect their intervention decision:

> Music therapy tends to be in my experience with children's hospitals tends to be that you will have significantly more child life specialists then you will have music therapists. And so if you are deploying music therapists sort of in a traditional music therapy program you may have two or three but they cover a great deal of areas and are not necessarily assigned to a particular area but they provide to a lot of different places. As a child life specialist you tend to be anchored to a unit so I think from a practitioner perspective it comes as a challenge balancing the opportunities in the entire hospital versus the specific set of patients and really going back and forth with the two. (Participant 3)

Substitutability. Substitutability was reflected in the analysis as a common theme that music therapy and child life interventions can be substituted for each other in a seamless fashion. Substitutability was mentioned in the areas of preparation, procedural support, and bereavement. Regarding preparation, Participant 3 stated "It was a little bit like co-treating with one person so being able to pull that sort of back and forth made a big difference." In the area of procedural support, Participant 3 stated:

> So there's a lot that sort of what the blended looks like is going from in the midst of a painful procedure. It maybe everything from sort of preparing the child, but if you're

> going to provide a distraction or diversion it may be that these are the things that this kid responds to and if that's really jumping in where having that song or that activity, whatever, but also having the blended going to be able to jump out the music is not really what is capturing his attention so jumping to sort of the next piece or the next tool, you know whether that be *I spy*, something like that, that quick jump back and forth between the two. (Participant 3)

Participant 4 gave an additional statement about procedural support:

> I might start with music and then I will switch to bubbles and then I will go back to music and then we will play a game then we will go back to music so it is integrating the different interventions during support especially on the burn unit is where I do it the most. (Participant 4)

Finally, participants also addressed bereavement. Participant 5, after helping seven grandchildren say goodbye to their grandfather in the ICU, reflected on the experience. “I think it was very integrated and it was really lovely to be able to do something and it seemed looking back it seemed so easy and natural because it evolved so naturally.”

Category 2 – Specific Interventions

Specific interventions were defined as the actual application of formation, coordination or blending of practices into a functional whole. Specific interventions help address the variety of needs patients and families have in the hospital environment. The generated subcategories were

introduction of services, coping, emotional expression, anxiety reduction, pain management, preparation, procedural support, normalization, group activities, and bereavement.

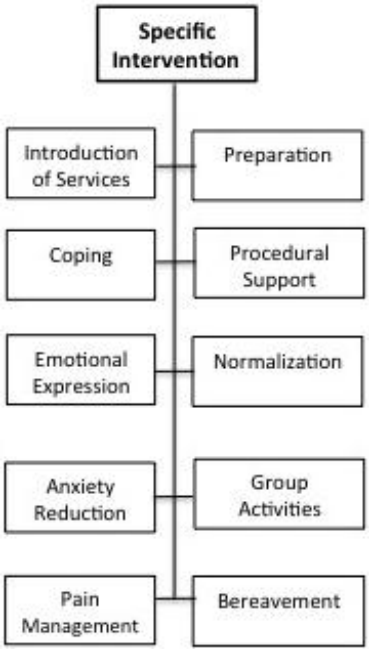

Figure 3. Coding frame for category 2- specific interventions highlights where dual-certified clinicians are implementing integrated practice.

Introduction of services. Introduction of services was an opportunity for participants to explain their dual role and what services they provided both child life and music therapy to help a patient and a patient's family. Each participant highlighted key points such as focusing on how child life and music therapy services can help and being careful to not provide too much information initially when introducing services to families. Participant 2 discussed the process of introduction of services when carrying two certifications:

> That can be a little tricky when you have two certifications. One thing that I often do because families will when I say I am a child life specialist and a music therapist sometimes they look at me like a what and a what? So I'll explain to them that in the hospital environment we play close attention to child development and how they are coping and explain to them sort of the duality of my role so after establishing that I am a child development specialist in the hospital who also uses music. I then explain this is child life and this is music therapy and these are how they can help you. It is an orientation to services and sometimes having to repeat yourself a few times because families who are under a lot of stress tend to not take in information as easily so being prepared to reinforce and provide them with some ideas of how we can help along the way. I guess that is why I kind of focus on this is why being present can help your child, they are more concerned with how can you help my child. Why are you here?

Participant 4 commented on the introduction of the child life department first:

> When I introduce services to a family it is generally for my department, which is Child Life and Creative Arts so I usually start off introducing child life as a whole and for that I will say "we" because there are other people doing it. We are here to support you, we can teach you, we can prepare you for surgery or for a procedure and we can provide recreational activities that whole part of it and then I go into the "I" so then I say also I am a music therapist and then I will explain what music therapy is so they have the gamut of both of them.

Coping. During introduction of services, there is an opportunity for a dual-certified clinician to assess how a patient and family are coping with hospitalization. It is also an opportunity to address questions from siblings and family:

> For coping I think it integrates pretty seamlessly. Again it is a lot the conversation what they are going through and making sure that the child and the family understands the illness and how they are understanding it and if there are questions and from there I can gauge what my interventions may be music therapy wise. (Participant 4)

In addition, Participant 4 discussed addressing sibling questions:

> Similarly if something comes up in the session like this might happen with our EEG patients and one of the kids is like 'they have one of those funny hats on their head' then I can provide education during it so it comes up during the music therapy session whether they are asking 'oh, doesn't that hurt on his arm?' well then I can help them understand what is going on and help them understand in the middle of the session what is happening.

Participant 5 mentioned the importance of a positive focus to promote coping for patients and patient's siblings:

> Well, I think the way that it looks is providing a positive focus whether that focus may be bubbles or pinwheels or the aquarium or singing a song but it is a way to cope and be less anxious and a way to cope, cooperate so that they are not so resistant and it may be to redirection or refocusing their attention on music, games… And it just really whatever it

> is music, play, toys or whatever, it is providing that positive focus for the child and helping them be able to cope…If the sibling is there and needs some support it might be just giving them a positive focus. Nothing terrible is happening, their sibling is not dying, they're not overly anxious, they are just there and they don't understand what is going on and they don't understand where they are, it might be a different place so offering a positive focus for them so it might be introducing the option of playing music with me or the option of painting with me or playing a board game or playing a video game by themselves if the mom and patient are busy at the bedside. So it is integrating options for the sibling.

Emotional expression. Dual certified clinicians offer an outlet for emotional expression for patients, siblings and families. A powerful tool is the use of songwriting for emotional expression. Participant 2 told a story of a sibling of one of her patients and the power of nonverbal expression. "I think it was a really nice experience for him, he got to put his feelings in a place that he could really use music to help him work out his emotions and work through what he was going through in a nonverbal way."

Participant 4 discussed how thoughts and feelings could come out for patients during a music therapy session and how she was able to integrate music therapy and child life interventions:

> A child had been newly diagnosed with diabetes and he was writing a song with me just really improvising it and he started to talk about a doll who went for a walk and he started

> getting shots because he was bad and this was all in the song so that was clearly was a child life that I picked up on and alright you are getting shot and are bad let's follow up on that so it was question after that but it came through the music.

Anxiety reduction. Anxiety reduction for patients and families is an important intervention for the dual-certified clinician. High levels of anxiety can impede the provision of effective integrated practice. "I would say that anytime that anything is least effective is when a child is already in a high state of anxiety, it makes it very difficult to break through that barrier" (Participant 2). In addition, Participant 2 discussed the importance of anxiety reduction in a variety of areas relevant for integrated practice; implementation of integrated practice, prior to procedures, pain reduction and during relaxation experiences. Regarding the implementation of integrated practice, Participant 2 stated, "I think that the best possible way to use the two modalities is to intervene prior to a medical intervention to establish a baseline of decreased anxiety and increase comfort which you can help contain that." Participant 2 mentioned the importance of intervening prior to procedures:

> …and the child engaged so readily in music and engaged so readily in medical play as a result of decreasing that anxiety that after that procedure and after things had wrapped up, the mother was like "oh my gosh, that was so great. I am so glad that we are here." And seeing that really kind of says it all.

In relation to pain reduction, Participant two mentioned, "…really decreasing that level of anxiety can decrease perceptions of pain so trying to redirect a child through intervention I think

is extremely helpful and often really effective especially if you can begin prior to the procedure." Finally, Participant discussed anxiety reduction during relaxation experiences, "…and if they are anxious then I will play something to try and contain them to a more comfortable state."

Pain management. Patients in the hospital can experience varying degrees of pain both acute and chronic dependent on the severity and type of illness. Dual-certified clinicians offer specific interventions to aid in pain management.

Table 5

Pain Management Responses

Intervention	Participant example
Guided imagery	"…sometimes it will also be with music…recorded, sometimes guitar."
Breathing exercises	"…do a breathing exercise may be with the color as the imagery as well or just do a guided imagery."
Singing songs	"…very often with younger kids especially from babies up to preschool may be I go into the known hit chart for kids songs list."
Alternate engagement	"I think engagement…in something other than focusing on the pain…"
Music assisted relaxation	"I use it often for kids who are going in for induction …So generally I will do guitar and humming with very little words or no words"
Lyric analysis	"…long term it becomes especially with pain and discomfort it becomes sort of talking through... doing some lyric analysis that specifically looks at pain..."
Passive music	"…passive music is really what I find to be the most effective…using the iso principle…using voice and guitar to bring them down."
Use of iPads	"…we do also have iPads and sometimes the kids want to use that for distraction…"
Offer a different focus	"Same thing with the pain management kind of redirects the focus."
Playing an instrument	" …using a glockenspiel…or using ukulele to refocus with a soft melody."

Preparation. When a child is getting ready for a procedure, preparation is a tool to help prepare a patient for what to expect and to clear up any misconceptions that a patient may have. Preparation focuses on the provision of information that includes sensory information such as

what a patient will see, hear, feel, smell or taste (Goldberger, Mohl, & Thompson, 2009). In addition, modeling using medical play can help a patient see what is going to happen. Steps of preparation (see Table 6).

Table 6

Steps for Preparation

Steps for preparation	Type of intervention	Examples of Participant's responses
1. Determine patient understanding and clear up any misconceptions	Child life	"I feel like preparation is very specific…So why are you here to today? What do you understand about what is going on? And find out what is going on from their point of view before proceeding with any education."
2. Provide the sequence of events and identify stress points during the procedure	Child life	"So I might explain in the case of a suture removal, we have some little tiny strings (the suture is on the child's hand) on your hand and you don't need them anymore because your booboos are healed. The nurse's job is going to be to help you…the job of the child is to be as still as they can and in most cases I invite them to participate in some sort of diversion activity."
3. Develop a coping plan to address potential stress points	Child life and/or music therapy	"and then we would talk about coping strategies and if music is appropriate… we decide we want to try we would probably choose a preferred song together… and we could take it for instance to the treatment room"
4. Rehearse coping plan and reinforce patient's knowledge of upcoming procedure	Child life and/or music therapy	"…this child who we knew responded very well to music, wanted to make sure the knowledge was really there and wrote a sort of simple piggyback song to talk about the steps of the surgery... using music as a reinforcer, a way for the child to demonstrate understanding of the points of it…"

Participants were asked the kinds of procedures for which they were providing preparation and procedural support. Participants were providing preparation and procedural support for surgery, suture removal, echocardiograms, blood draws, intravenous (IV) starts, lumbar punctures, magnetic resonance imaging (MRI), hydrotherapy room and tank room for burns, voiding cystourethrogram (VCUG), electroencephalography (EEG) lead placement, ultrasound, and x-ray.

Procedural support. While the focus for preparation was child life- based, participants placed an emphasis on integrated practice using music therapy and child life- based interventions during procedural support. Procedural support uses the coping strategies determined during the preparation stage to help a patient cope with a procedure (Thompson, 2009). Procedural support interventions (see Table 7).

Table 7

Procedural Support Interventions

Procedural Support Interventions	Participant example
Music with a visual component	"I do think for procedural support….music but very often I will use music with a visual component especially when it is a younger kid."
Integrating music into medical play	"…and then I pulled the music into the session immediately following the medical play… then as we continued with the music session we transitioned right into the procedure using music therapy to help contain and really support her for the whole intervention."
Supporting a patient's coping style	Information seeking – "Some children cope best through watching and that's ok to do so at which point I might offer some supportive music" Avoidant coping – "But I have had kids who have had pin removals and suture removals who have played guitar with me throughout the procedure and have looked up and they say "What do you mean it is time to go?"
Using the preparation song	"…because then you can even use the reinforcing song as a way to sort of focus them back to know what's going on….as a point of focus…"
Moving between music and play	"I might start with music…switch to bubbles and then I will go back to music…so it is integrating the different interventions during support..."
Music with child life teaching	"So again I think that is where I use it (child life) the most is in procedural support to explain what is happening, what is going on."
Establish a calmer environment	"…establish a calmer environment by adding music just playing music and not even talking."
Active engagement or distraction	"If I integrated music it was very specific for active engagement or distraction"

Normalization. Normalization is a way for the dual certified clinician to help patients and families make the hospital environment as 'normal' as possible. A dual-certified clinician can offer both play and music opportunities that can help. To determine the most appropriate intervention, Participant 1 interviews the patient. "I interview them on what they like to do when they don't feel good and if art comes up or if it turns out that they love to play UNO then I may start there. So it depends."

Participant 2 found that most children respond to music and music is normalizing for them:

> I would say most of the children that I encounter are fans of music, they enjoy dancing, they like singing and they like playing instruments so in and of itself participating in music and music therapy interventions are pretty normalizing for them.

Participant 2 and 3 mentioned siblings who come to the hospital that music can also be a way to normalize the hospital environment:

> So definitely creating small groups for the siblings, providing them with a music therapy intervention with their sibling I think can be really normalizing for them. It shows them that the hospital is not a place full of scary things but there are also normal things that they enjoy doing outside of the hospital environment. (Participant 2)

Participant 3 helped normalize the environment for siblings who were meeting their baby brother or sister in the NICU. "Again, it's a new baby so universally lullabies tend to be you know such a normal experience that it gives them something that is normal and it's a nice thing for the babies all too."

In addition, Participant 3 mentioned the use of music to normalize the sound environment. "Music can be used as a masking agent too especially if what is stressing this child out is the beeps and all the sounds there's an opportunity there."

Participant 5 discussed the importance of the hospital playroom for normalization:

> I believe integration of both because I have great resources where I work I have a wonderful playroom so if they are mobile and they can get out of the room, they are going to walk down there and they are going to see a huge sandcastle. I also have my office, which has tons of instruments and resources there...more music based. So I think offering a place that is safe no procedures are done in the playroom, they can come in and read, paint, play Fuze ball, they can play instruments with me. So introducing and making the children aware of what we have that is normal that isn't hospital specific, we are not talking about IVs, we are talking about music, we are talking about crayons, we are talking about Xbox 360 games, things that they know that are fun.

Group activities. Participants were asked if they provided group activities for patients and if the groups were child life, music therapy groups or both. One participant attempted to provide group activities weekly co-treating with a child life specialist in the playroom. Another participant expressed restrictions to group activities. "We have children from all over the world and then all different ages so I think one of those contributing factors can be challenging but two of those factors make it nearly impossible." Participants if group activities were not possible provided group music therapy for family members at bedside. One participant who provided

primarily music therapy groups based on the census occasionally used child life education to inform patients when it was appropriate.

Bereavement services. In the area of bereavement, participants offered a variety of interventions both child life and music therapy to help support families before, during and after the loss of their child. Participant 1 mentioned an annual memorial, playing music after a child's death, preparing memories for the family by offering music to families and making a memory box:

> We have an annual memorial in which we do music and me and a colleague of mine collaborate on a song list, between reading and provide appropriate music and I will provide backdrop music for the reading that is chosen as well.

In addition, Participant 1 discussed playing music after a child's death:

> One time when I did think it was appropriate, where I asked there was extended family here in the PICU and the child had passed away and it was appropriate for me to kind of hold the emotional eruption that's happening in such a severe situation with very quiet back drop music because they have known me and they knew that I played music so in that case I felt that it was appropriate and that is what I did and it went fine.

Finally, Participant 1 spoke about how to prepare memories for the family:

> We prepare the memories for the family and one of us talks to them and if it is appropriate then I will play music but very often when we don't know them then the music is…. we ask but if it is not wanted then it doesn't happen…In the situation where

> we do have a family whose child is passing away, it is typically a really difficult type situation. Mainly because we don't deal with it a whole lot but we do offer support for the family members. We offer if they would like music, we offer to play specific music for them as even part of memorials for the child, we offer recordings for them to take with them as part of their bereavement…We have what is called a memory box so we'll put things like that in there. We try to work with families to get as meaningful for them as possible.

Participant 3 discussed the natural team approach in bereavement situations and legacy building in the case of an anticipated death:

> So, obviously when you get into bereavement and this is really one of the big things is that it is, especially with bereavement, it gets into a team approach so you know between looking at child life and music therapy and our spiritual care department, social work, all that team.
>
> If it's an anticipated death being able to work with the child in advance, doing some legacy building things too. Some kids building a scrapbook, things that they want to leave. Let's talk about what sort of songs would you want at your funeral. Talking through some of those elements and sort of getting to that point as well too.

Participant 4 highlighted using music for connection during bereavement, the use of handprints and footprints and helping siblings cope with the death of a loved one. Regarding connection, Participant 4 said:

> Bereavement in general what I do for family support again is very music therapy based with the patient involved even if I play passive music as the patient is dying or throughout that process right before so that the family has something to connect with.

Participant 4 spoke about the use of handprints and footprints:

> And then our hospital also offers handprints and footprints so that is a part that child life does that does not involve music therapy at that point so we will do prints of the infant or child for the parents to keep so we will talk to the parents about favorite color choices and what we can do there.

Lastly, Participant 4 shared a story about preparing siblings for a sibling's death:

> I did a bereavement support prior to the patient passing away for a young cousin and a younger brother and they weren't sure how to talk to them and wanted to be with them so I talked to the family first and that was just verbal child life intervention talking about how to talk to the kids, what to tell them, how much information to give them, they didn't know if they should visit with their sister so we had that conversation and then when we actually had the session, these were little guys, they were more toddler age, they wanted them to remember so they were concerned that they wouldn't remember their family member when they got older so we wanted to create some sort of legacy, some sort of remembrance so I asked them what they loved about her, what kinds of things they liked to do with her, and created a song out of that and started singing it and they were dancing with their family members along to it and a family member videotaped that so they got to

create a song about the child's favorite memories so they had some visualization of her and memory of what they loved about her at that time even if they probably won't remember it.

Participant 5 who worked both in the pediatric and adult hospital where her job was split between the two, spent time in the adult ICU helping children say goodbye to adult loved ones:

In particular, an example would be to help a group of grandchildren whose grandfather is dying and we started with drawings and talking about the grandfather, sharing memories about him, sharing their experiences with him and part of what he liked was music so we transitioned to that. "What kind of music?" "What songs"" and then we talked about that and then we talked about may be it would be nice to take these pictures and hang them up in his room and asked them if they wanted to do that and they also wanted to sing a song for him. It evolved based on what they gave me, what they shared with me about their grandfather, a wide range of ages, there were seven grandchildren from ages four to seventeen year olds so a wide mix so we did it all together and we all went in together and their parents were in the room and so was grandmother and grandfather in the bed. We shared the song with the grandfather, hung up pictures, answered questions initially about what this was and what that was and what was in the room. We had already talked about it but when we saw it, they had more questions and then we sang the song and hung up the pictures.

Category 3 – Benefits of Integration

The Benefits of Integration category developed from question 2 on the interview guide. "What are the benefits of integrating the two practices?" Four subcategories were identified; flexibility, broader scope, complementary and marketability.

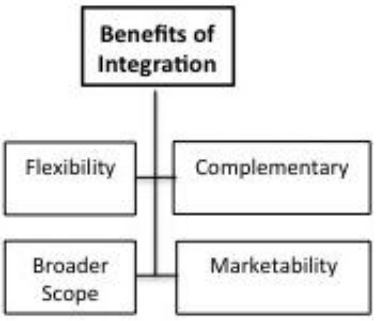

Figure 4. Coding frame for category 3 - benefits of integration, displays 4 benefits of integration.

Flexibility. Participant 2 spoke of flexibility in terms of *service delivery.* "I think it allows a great deal of flexibility in how I can deliver developmentally appropriate psychosocial services." Participant 3 shared how the benefit of flexibility in *being able to wear the hat of play and music* which made interventions interesting for the patient:

> And it set a really good tone so even post-surgery, really watching the kid just to see developmentally where certain things are there, what they were, pulling in all kinds of information and being able to go back and forth because being able to wear the hat of play and music help tremendously in the times that I would spend with a patient it would be going from play to music and even musical play at bedside so it was a way to really change gears so quickly.

Participant 4 discussed flexibility in terms of being able to *address questions* that may come up during a music therapy session and it provided her flexibility in the variety of interventions she can provide:

> For example, in the past, prior to my certification in child life if I went into a room and they started asking questions about a procedure during the music therapy session I really couldn't do anything about that and I would have to refer out but now with my dual certification I can handle that right on the spot and not interrupt the therapy session…. So that it where it really comes in handy to be able to vary what type of intervention you are doing.

Broader scope. Participant 1 described having *more tools and approaches* to working with a family:

> I would say having more tools you can gain from helping the entire family having more tools when thinking about interventions in particular…. Again I think it affords you many ways in different approaches how to think about working with a family and working with a patient.

Participant 4 mentioned the ability to *offer more well rounded interventions* and *being able to address all aspects of a patient's care.* "I think it enhances what you are doing and you can have more well -rounded interventions…. Be able to deal with all aspects of their care in terms of music therapy and child life."

Participant 5 spoke of *the range of resources and services* a dual certified clinician could offer. “I think it really gives us the opportunity to provide a wide range of resources to the children and a wide range of services. It gives us a broader scope.”

Participant 6 mentioned the *benefit of the child life credential* and the opportunities it has afforded her during her career:

> I had teaching experience from the school of education. I am teaching child development and family development courses, which is really awesome and really cool. I have to say that the package has worked for me professionally. Yeah, based on my experience I don’t know that I would encourage a whole lot of music therapists to become child life specialists but for me it has given me a really rich career. It has given me opportunities to do things and see things from both sides that would not have had otherwise and it’s opened a lot of doors for me.

Complementary. Participant 2 introduced the concept of *smooth transitions*. “And so really integrating I feel like it is almost a complement when things go so smoothly that you may not notice that they’re two things are going on at once.”

Participant 3 mentioned figuring out *how to use the knowledge base of both*. “Being able to use the knowledge and figure out how they complement each other which ended up being fantastic.”

Participant 5 spoke at length on the *concept of music and play* and how they complement each other:

> I think music and play are the two components of both of those disciplines and they complement each other very well. I think that singing is pretty natural for children generally and that is a big part of music as well as playing instruments and I think that the comfort that children have with play and playing games and making things up and imagination I think that is all pretty natural to them where they are comfortable and I think all of those things work together and complement each other very nicely. You can sing while playing and you mix and match everything and it all fits.

In addition, Participant 5 discussed *how the professions of music therapy and child life complemented each other*:

> I think our professions fit nicely together and I think that I just think that what you bring to the patient comes from a lot of different areas. You may have had lots of experience with death and dying, may be you have never had experience with that. That's a part of who you are when you come to this environment and you are in a hospital and you are going to acquire it in one way or another. I think the music background, the play background, the child development background, the grief and bereavement background training that we get, it really fits together.

Marketability. Participant 3 and Participant 6 mentioned how having the dual certification can increase a clinician's marketability in the eyes of employers:

> I can think of one program in particular who said they would love to have all their music therapists who are dual certified even if they were primarily hired for music therapy just

having that extra training that they really considered that the prize and made that sort of sought after in the field so it is sort of interesting that you do see the benefit of it. (Participant 3)

Participant 6 shared the importance of the CCLS credential in regards to employment:

About three years ago, I was going to let me CCLS lapse because I wasn't using it. I was working for a nonprofit in pediatrics specifically delivering music therapy services. I wasn't using the child life piece and when they hired me for an advanced clinical position and they really liked that I had the CCLS and that it gave them more credibility in terms of a third party that provided services in the pediatric hospital. I wasn't using it and I wasn't attached to it and I was going to give it up and I went to them and I said I am not attached to my CCLS and I can let it lapse or if you feel strongly that you want me to have it basically you are welcome to pay for it. If you want the CCLS behind my name then pay for it and they were like ok. So there you have it, they did pay for my renewal for a number of years until I left.

The CCLS credential also opened up opportunities for Participant 6 in the area of teaching:

So one of the things that I am doing now, one of my positions now is mostly is program coordination and program management so it is more administrative at this point I am not doing a lot of clinical work but I also teach so I am teaching music therapy at a university, I am an adjunct. I teach for a university here. I also teach for an online

university and the reason this online university hired me was because I had a CCLS…. So now that they have the requirement in child life that you have to have at least one class that was taught by a child life specialist in order sit for the exam so this university is wanting to develop a child life specific curriculum for people who need that requirement. Who want to go into child life and meet that requirement and that they can have me as one of the people who can teach the class because I have the certification.

Category 4 – Dual certification

Category 4 highlights the benefits of training that a dual-certified clinician possesses with both music therapy and child life as well as some of the challenges that were brought up by Participants 3 and 6 regarding the future of a dual-certified MT-BC, CCLS clinician. The subcategories were benefits of music therapy training, benefits of child life training, differences in training, and future restrictions.

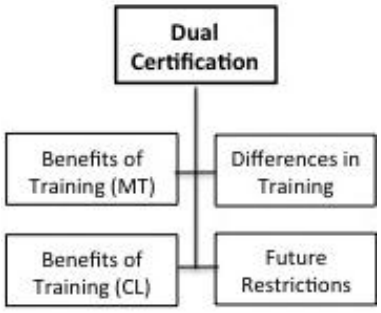

*Figure 5.*Coding frame for category 4 – dual certification illustrates the benefits of both MT and CL training, how the training differs between the two and possible future restrictions for dual certification.

Benefits of music therapy training. Participants offered a variety of benefits of music therapy training. Participant 1 mentioned *an insight into abnormal psychology* ("I think that the music therapy training may have afforded me insight into abnormal psychology and into psychosocial aspects.")

Participant 2 highlighted the benefits of *increased sensitivity* ("…so using my therapy background which is my primary education and my bachelor's degree I think really helped me in terms of…. My therapy background increases my sensitivity") and *provide family centered care* ("I think the concept of family centered care is really important in my work and how do I incorporate my music therapy interventions to include the family as much as possible, things like that.")

Participant 3 mentioned that music therapists are *trained as generalists* ("Well, you know, it's interesting because one thing in music therapy training is we're trained as generalists. We're trained from birth to death and anywhere in between.")

Participant 4 discussed the benefit of *more outlets to work with a patient:*

> I think it gives more outlets to work with a patient through songwriting, emotional expression for support and procedural support when we go in especially with the young kids and the kids with developmental delays the child life intervention can't necessarily do the job alone and I think that the music therapy adds to it that you can really connect with them to help them calm down, distract and support them through that, so I think that there are some kids that it is really hard to reach them without the music.

Participant 6 mentioned four benefits of music therapy training; *understanding of the therapeutic relationship, understanding long term goals and assessment, in depth understanding of how to support a patient* ("I feel like in terms of the actual therapy piece and the supportive piece as the music therapy goes is more in depth than child life."), and lastly *developing a therapeutic relationship* ("but in terms of depth of service I think really in the depth of the relationship with the child I really thinks that comes from the therapy.")

Benefits of child life training. Participants discussed the benefits of the child life training. Participant 1, 2 and 6 said that it provided *deeper insight into child development and family aspects.* "The developmental piece of the child life education really helped me to best meet the needs of the child and family in the moment" (Participant 2). In addition participant 2 mentioned the *benefit of integrating distraction techniques* and how if a music intervention is not working that child life techniques gave her the option to switch to another technique.

Participant 3 mentioned the child life training helping understand the *impact of illness and hospitalization on child development.* Participant 4 highlighted the benefit of *providing education for procedures:*

> Child life has really given me that extra ability to educate during procedures and be able to know how to explain it and have a child know what is going on. Prior to the certification I knew, okay, an IV, it is not a needle in your arm, it's a straw but I didn't know that right terminology. I feel better equipped to do that now.

Participant 5 talked about how the training gave *additional options* to the services provided to families. Participant 6 mentioned that the child life training helped increase awareness of how to *communicate with pediatric patient* and *increased understanding of medical aspects:*

> So it really helped have an understanding of specific medical things that were going on and if in the course of doing music therapy there was a question that came up in terms of their particular treatment then I definitely would have the skills to address those questions using appropriate language, a sort of understanding of the bigger picture in terms of the medical side of things.

Participant 6 finished with that child life added another perspective to music therapy practice ("And the child life piece has really enhanced my marketability and my flexibility as a clinician and being able to look at things not by just one lens but multiple lenses.")

Differences in training. At the end of each interview participants were asked if there was anything that they would like to add. Based on participant responses two additional subcategories of *differences in training* and *future restrictions* were added to the category of dual certification. Included in the *differences in training* subcategory were the difference between MT and CL practicums and internships, the challenges of the Child life certification exam, and the difference when looking to hire an individual who is a child life specialist versus a music therapist.

Regarding the training in practicum and internships, one participant discussed the training differences between music therapy and child life and felt that the music therapy education process and training opportunities in terms of practicums and internships better prepared students to be a professional. One of the biggest differences in training was the practicums in music therapy are hands on and the practicums in child life are designed to primarily have students observe to learn and then have more hands on experiences during the internship.

In addition to differences in practicum and internships in child life and music therapy, one participant mentioned the need for improvements in the child life certification exam, which at this point focuses on the book answer and not what a professional would do. The participant feels that changes need to be made so the exam matches actual professional application. The Child Life Council is working with a team to make changes to the certification exam questions for future testing.

Finally, being hired as a professional was discussed. One participant spoke about how the training and education differences between music therapy and child life can affect whether an individual is hired. The participant mentioned that with a new music therapy professional versus a new child life professional that a music therapy professional would be better prepared and more marketable in the job market based in the strong education and training background of the profession. The child life profession is making changes by increasing practicum and internship hours and adding a master's degree requirement to strengthen professional competence.

Future restrictions. In addition to the challenges mentioned previously, there are future restrictions that may inhibit a music therapist to obtain the child life credential. Those include *educational restriction* and *hiring dual-certified clinicians*. One participant wrote about *educational restrictions*:

> Well, one of the things especially about the dual certification right now is in the next couple of years it is going to get significantly more difficult to be dual certified. Where in the past, where it was much more easy especially since the Child life council is starting to change its educational requirements and tends to be the big thing right now and even starting in 2013 with needing the one child life class taught by a child life specialist so that was the first thing that a music therapist would need that was different.

Another participant highlighted future certification requirements:

> and they have really changed their certification requirements so it is going to be much harder as time goes on for those of us who were able to use parts of our music therapy education to become certified in child life. It is going to be much harder to do that in the future. They are going specifically to Masters only in the next years or so or less, 2020 or 2019.

When looking at *hiring dual-certified clinicians*, one participant discussed shared:

> In the long run, one of the things I have started to do is to make sure that I have music therapy positions that are named credentialed positions specifically. It is sort of a way that after I leave that the hybrid if I was to do a music therapist/child life specific position

wouldn't just be changed entirely to a child life position so it is sort of a way to guarantee services.

Conclusion

The intent of the current research was to answer the following question: "How are dual-certified clinicians integrating child life and music therapy interventions in clinical practice?" Through in-depth interviews six participants provided descriptions of integrated interventions that are helpful to the current practice of dual-certified clinicians and to those individuals who are interested in becoming dual-certified.

Benefits of dual certification

The current integration practices of the participants support the benefit of dual certification offering multiple entry points into a therapeutic relationship with pediatric patients and families (Mondanaro, 2005). Participants used a variety of creative modalities including music, art, and play in their integration practices to help patients and families understand and cope with illness and hospitalization. The creative integration practices of the participants were supported in the child life, music therapy and dual certified literature base in the areas of assessment, coping, preparation, procedural support, education, and pain management.

In the area of assessment, participant responses supported Koller (2008) and Turner and Fralie (2009). Assessments highlighted child and family coping and level of understanding related to illness and/or hospitalization. Assessments were ongoing, informal and integrated both child life and music therapy interventions. The integration of both practices supported dual-certified clinician, Mondanaro and Needleman (2011) who discussed a creative approach to assessment that focused on a patient's understanding and coping with illness and hospitalization.

Helping a patient cope with illness and hospitalization, participants highlighted a variety of integrated interventions that focused on anxiety reduction. Integrated interventions included songwriting with child life education to promote emotional expression, integration of play, music, art and games to provide a positive focus and normalizing the environment, engaging in medical play and singing to reinforce learning and understanding, use of relaxation techniques such as guided imagery and guitar playing for pain and anxiety reduction, and songwriting and art to address bereavement for patients and siblings.

Having multiple entry points through creative modalities afforded participants flexibility to address a variety of patient and family needs but so did the child life preparation and education training that participants received through child life certification. Child life preparation and education training afforded a dual-certified clinician the flexibility to provide seamless serviced delivery during preparation for a procedure, during a procedure and following a procedure. With the child life education training, participants were equipped to address patient's questions about illness, hospitalization or medical procedures and provide the necessary education to promote understanding. While most participants did not integrate music therapy and child life interventions during preparation, one participant used songs to reinforce the steps of a procedure and to help a patient demonstrate knowledge. Sometimes, the songs would be used during the actual procedure to remind the patient of what to expect. This strategy was supported in the literature. Chetta (1981) found that songs reinforced a patient's understanding of a procedure.

Moving from preparation to procedural support, participants spoke about the seamless transition, flexibility and interchangeability that music therapy and child life interventions provided. Having a variety of creative modalities from both disciplines gave participants more options to offer patients during procedures. Participants were asked what procedures they provided procedural support for and the types of procedures were supported in what has been done in the literature (Deloach Walworth, 2005; Loewy, Hallan, Friedman, & Martinez, 2006; Malone, 1998; Mondanaro, 2008).

Education training afforded participants the ability to address medical questions that may arise during a session and may therefore aid a child in understanding his or her illness. For example, a participant mentioned being able to address questions from patients or siblings that may come up during music therapy groups or help a child understand a new diagnosis during a songwriting experience. Integrated practice of the provision of education within a creative context is supported by Leeuwenburgh et al. (2007).

In the area of pain management, participants used both music therapy techniques such as MAE and MAR as well as child life techniques of active and passive distraction such as guided imagery, iPad apps, bubbles, and games. Integrated practices mentioned by the participants were the use of guided imagery and guitar, incorporating breathing exercises with music listening or singing, and verbal processing with lyric analysis for chronic pain.

Barriers to integrated practice

While the participants found a number of benefits to integrated practice, there were also barriers that impacted the participants' ability to provide integrated interventions. Barriers such as hospital culture, the challenge of establishing clear roles, receptivity of hospital leadership to integrated practice and establishing a professional identity as a dual-certified clinician were highlighted by participants as well as by Darsie (2009) and Cole, Diener, Wright, and Gaynard (2001). Further barriers for becoming dual-certified may exist in the future with changes being made to the requirements for child life certification such as adding a child life class taught by a child life specialist and the child life profession's move to a master's degree.

In addition to the barriers mentioned, each participant's implementation of integrated practice varied and followed a spectrum of integration. On the spectrum of integration, how a dual-certified clinician was hired impacted his or her use of integration as well as how each participant viewed his or her own role and professional identity. Within the group of six participants, one participant used very little integration and represented for the group how barriers can limit integration. On the opposite end of the spectrum, one participant was hired because of being dual-certified. With integrated department leadership, the participant was able to fully integrate both practices. This spectrum of integration was supported in Ghetti's (2011a) results of the lived experiences of dual-certified clinicians.

Limitations

While the researcher was able to describe specific intervention practices of dual-certified clinicians, limitations were found in the researcher's interview questions and inexperience in the interview process. Additional questions could have been asked to encourage more in depth responses and some questions could have been tied to current literature to compare research with actual current practice from participants. In addition, the sample size of the study is limited therefore minimizing the ability to generalize the results. Having a larger percentage of participation would have given the study additional validity.

Recommendations for Future Research

Additional research would be beneficial to determine evidence- based practices that integrate both music therapy and child life interventions. Developing evidence-based integrated practice could in turn reinforce a clinician's decision to pursue dual certification and demonstrate to the music therapy and child life community that there is a place for integrated practice.

In addition to research on evidence- based practices, it is the recommendation of the author to research the possible future educational restrictions that may present a barrier to dual-certified practice.

Reflection

It is important to note that the researcher is currently seeking dual certification in child life and music therapy and therefore is interested and believes in the benefit of dual certification and integrated practice. Throughout child life practicum training and child life internship

training, the researcher observed and participated in experiences that could have been enhanced through integrated practice. It was through the child life training that the researcher learned and saw how integrated practice could benefit patients and their families. It is possible that this belief could have biased the way the researcher interpreted the participants' interview responses and also how the resulting data was coded during data analysis.

Summary

The purpose of this study was to provide a detailed description of the integration of music therapy and child life practices in pediatric settings by dual-certified clinicians. Detailed descriptive research is one way to inform the practice of both music therapy and child life clinicians with the ultimate goal of finding innovative ways to help children and families cope with the challenges of illness and hospitalization. Both music therapists and child life specialists need to continue to work toward care that is integrated, innovative and can offer multiple entry points in establishing a therapeutic relationship with pediatric patients and their families. In the future, clinicians may choose to work toward providing integrated care as a dual-certified clinician in music therapy and child life. The decision to pursue dual certification is supported and justified by the benefits highlighted in this study.

References

Aasgaard, T. (2005). Assisting children with malignant blood diseases to create and perform their own songs. In F. Baker & T. Wigram (Eds.), *Songwriting: Methods, techniques and clinical applications for music therapy clinicians, educators and students* (pp. 154-179). London, Great Britain: Jessica Kingsley Publishers.

American Academy of Pediatrics. (2006). Child life services. *Pediatrics, 118*(4), 1757-1761.

American Music Therapy Association (2014a). Music therapy and medicine. Retrieved from: http://www.musictherapy.org/assetts/1/7/MT_Medicine_2006.pdf

American Music Therapy Association (2014b). Retrieved from: https://netforum.avectra.com/eweb/DynamicPage.aspx?Site=amta2&WebCode=IndSearch

American Music Therapy Association (2013). Definitions and quotes. Retrieved from: http://www.musictherapy.org/about/quotes/

Ayson, C. (2008). Child-parent wellbeing in a paediatric ward. *Voices: A World Forum for Music Therapy,* 8(1).

Barrera, M., Rykov, M. & Doyle, S. (2002). The effects of interactive music therapy on hospitalized children with cancer: A pilot study. *Psycho-Oncology 11,* 379-388.

Barrickman, J. (1989). A developmental music therapy approach for preschool hospitalized children. *Music Therapy Perspectives, 7,* 10-16.

Being, A., Kemper, K., Martin, K. & Woods, C. (2006). Staff attitudes and expectations about music therapy: Pediatric oncology versus neonatal intensive care unit. *J Soc Integr Oncol, 4*(2), 71-74. doi: 10.2310/7200.2006.006

Blount, R., Zempsky, W., Jaaniste, T., Evans, S., Cohen, L., Devine, K., Zeltzer, L. (2009). Management of pediatric pain and distress due to medical procedures. In M. Roberts & R. Skele (Eds.) *Handbook of Pediatric Psychology* (4th Ed) (pp. 171-188). New York, NY: Guildford Press.

Bradt, J. (2010). The effects of music entrainment on postoperative pain perception in pediatric patients. *Music and Medicine 2*(3). 150-157.

Brill, N., Cohen, S., Fauvre, M., Klein, N., Clark, S., & Garcia, L. (1987). Caring for chronically ill children: An innovative approach to care. *CHC, 16*(2), 105-113.

Chetta, H. (1981). The effect of music and desensitization on preoperative anxiety in children. *Journal of Music Therapy, 18*(2), 74-87.

Child Life Council. (2014a). Retrieved from http://www.childlife.org/Membership/MemberDirectory.cfm

Child Life Council. (2014b). Retrieved from: http://www.childlife.org/The%20Child%20Life%20Profession/

Child Life Council (2013). Retrieved from http://www.childlife.org

Cole, W., Diener, M. & Wright, C. & Gaynard, L. (2001). Health care professionals' perceptions of child life specialists. *Children's Health Care, 30*(1), 1-15.

Cullen KA., Hall MJ., & Golosinskiy A. (2009). Ambulatory surgery in the United States, 2006. *National Health Statistics Reports 11*, 1-28. Retrieved from http://www.cdc.gov/nchs/data/nhsr/nhsr011.pdf

Darsie, E. (2009). Interdisciplinary team members' perceptions of the role of music therapy in the pediatric outpatient clinic. *Music Therapy Perspectives*, 27(1).

DeLoach Walworth, D. (2005). Procedural-support music therapy in the healthcare setting: A cost-effectiveness analysis. *Journal of Pediatric Nursing, 20*(4). 276-284.

Dileo, C. & Magill, L. (2005). Songwriting with oncology and hospice adult patients from a multicultural perspective. In F. Baker & T. Wigram (Eds.), *Songwriting: Methods, techniques and clinical applications for music therapy clinicians, educators and students* (pp. 224-245). London, Great Britain: Jessica Kingsley Publishers.

Douglass, E. (2006). The development of a music therapy assessment tool for hospitalized children. *Music Therapy Perspectives, 24,* 73-79.

Edwards, J. (1999). Anxiety management in pediatric music therapy. In C. Dileo (Ed.), *Music therapy and medicine: Theoretical and clinical applications* (pp.69-76). Silver Spring, MD: AMTA.

Froelich, M.A. (1984). A comparison of the effect of music therapy and medical play therapy on the verbalization behavior of pediatric patients. *Journal of Music Therapy, XXI* (1), 2-15.

Froelich, M. A. (Ed.). (1996). *Music therapy with hospitalized children: A creative arts child life approach*. Cherry Hill, NJ: Jeffrey Books.

Gaynard, L., Wolfer, J., Goldberger, J., Thompson, R., Redburn, L. & Laidley, L. (1998). *Psychosocial care of children in hospitals: A clinical practice manual form the ACCH child life research project.* Rockville, MD: Child Life Council.

Gfeller, K. (1992). Music therapy in the treatment of medical conditions. In M. Morgan (Ed.), *An introduction to music therapy theory and practice* (pp. 238-244). Dubuque, IA: Wm. C. Brown Publishers.

Ghetti, C. (2011a). Clinical practice of dual-certified music therapists/child life specialists: A phenomenological study. *Journal of Music Therapy*, 48(3), 317-345.

Ghetti, C. (2011b). Music therapy as procedural support for invasive medical procedures: Toward the development of music therapy theory. *Nordic Journal of Music Therapy*, 1-33. doi: 10.1080/08098131.2011.57127

Ghetti, C. & Walker, J. (2008). Hematology, oncology, and bone marrow transplant. In Hanson-Abromeit, D. & Colwell, C. (Eds.). *Medical music therapy for pediatrics in hospital settings: Using music to support medical interventions* (pp. 147-193). Silver Springs, MD: American Music Therapy Association.

Goldberger, J., Mohl, A. & Thompson, R. (2009). Psychological preparation and coping. In R. Thompson (Ed.), *The handbook of child life: A guide for pediatric psychosocial care* (pp. 160-198) Springfield, IL: Thomas Publisher.

Hall MJ., DeFrances CJ., Williams SN., Golosinskiy A, & Schwartzman A. (2010). National Hospital discharge survey: 2007 summary. *National Health Statistics Reports, 29*, 1-28.

Retrived from: http://www.cdc.gov/nchs/data/nhsr/nhsr029.pdf

Hendon, C. & Bohon, L. M. (2007). Hospitalized children's mood differences during play and music therapy. doi:10.1111/j.1365-2214.2007.00746.x

Hicks, M. (2005). The expanding practice arenas of child life specialists. *Child Life Focus, 7*(1), 1-4

Hommel, K., McGraw, K., Ammerman, R., Heubi, J., Hansen, M., Dunlap, E., & Beidel, D. (2010). Psychosocial functioning in children and adolescents with gastrointestinal complaints and disorders. *Journal of Clinical Psychology in Medical Settings, 17,* 159-166. doi: 10.1007/s10880-010-9193-4

Integrate. (n.d.). *Merriam-Webster.com*. Retrieved September 20, 2013, from http://www.merriam-webster.com/dictionary/integrate

Kennelly, J. (2000). The specialist role of the music therapist in developmental programs for hospitalized children. *J Pediatr Health Care, 14,* 56-59.

Klassen, J., Liang, Y., Tjosvold, L., Klassen, T., & Hartling, L. (2008). Music for pain and anxiety in children undergoing medical procedures: A systematic review of randomized controlled trials. *Ambulatory Pediatrics, 8,* 117-128.

Johnson, P., Nelson, G., & Brunnquell, D. (1988). Parent and nurse perceptions of parent stressors in the pediatric intensive care unit. *CHC, 17*(2), 96-103.

Koller, D. (2008). Child life assessment: Variables associated with a child's ability to cope with hospitalization. Retrieved from: http://www.childlife.org/files/EBPAssessmentStatement-Complete.pdf

Koller, D. (2007). Therapeutic play in pediatric health care: The essence of child life practice. Retrieved from: http://www.childlife.org/files/EBPPlayStatement-Complete.pdf

Koller, D. & Goldman, R. (2012). Distraction techniques for children undergoing procedures: A critical review of pediatric research, *Journal of Pediatric Nursing, 27*, 652-681.

Leeuwenburgh, E., Mondanaro, J. E., Omens, S., Fogel, A., Kanazawa, M.., Lynch, T., & Goldring, E. (2007). Child life and creative arts therapies. In S. Chisolm (Ed.), *The health professions: Trends and opportunities in U.S. health care* (pp. 397-424) Sudbury, MA: Jones and Bartlett

Li, HC., Chung OK., Ho, KY., Chiu, SY., & Lopez V. (2011). Coping strategies used by children hospitalized with cancer: An exploratory study. *Psychooncology, 20*(9), 969-76.

Li, HC. & Lopez, V. (2008). Effectiveness and appropriateness of therapeutic play intervention in preparing children for surgery: A randomized controlled trial study. *Journal of Specialists in Pediatric Nursing, 13*(2), 63-73.

Loewy, J., Hallan, C., Friedman, E. & Martinez, C. (2006). Sleep/sedation in children undergoing EEG testing: A comparison of chloral hydrate and music therapy. *Am. J. END Technol, 46*, 343-355.

Malone, A. (1998). The effects of live music on the distress of pediatric patients receiving intravenous starts, venipunctures, injections, and heel sticks. *Journal of Music Therapy, 33*(1), 19-33.

McClafferty, H. (2011). Complementary, holistic, and integrative medicine: Mind-body medicine. *Pediatrics in Review, 32*(5), 201-203.

McLeod, S.A (2010). Stress management – problem focused coping with stress. Retrieved from http://www.simplypsychology.org/problem-focused-coping.html.

Macnab, A.J., Thiessen, P., McLeod, E., & Hinton, D. (2000). Parent assessment of family-centered care practices in a children's hospital. *Children's Health Care, 29*(2), 113-128.

Mondanaro, J. (2008). Music therapy in the psychosocial care of pediatric patients with epilepsy. *Music Therapy Perspectives, 26,* 102-109.

Mondanaro, J. (2005). Interfacing music therapy with other creative arts modalities to address anticipatory grief and bereavements in pediatrics. In C. Dileo (Ed.), *Music therapy at the end of life* (pp. 25-32). Cherry Hill, NJ: Jeffrey Books.

Mondanaro, J. & Needleman, S. (2011). Social work and creative arts therapy services. In T. Altilio & S. Otis-Green (Eds.), *Oxford Textbook of Palliative Social Work* (pp. 465-469). New York, NY: Oxford University Press.

Mondanaro, J. & Sara, G. (2013). *Music and medicine: Integrative models in the treatment of pain*. New York, NY: Satchnote Press

Moayedi, M., & Davis, K. (2013). Theories of pain: From specificity to gate control. *J Neurophysiol, 109*, 5-12.

Nguyen, T., Nilsson, S., Hellstrom, A., & Bengtson, A. (2010). Music therapy to reduce pain and anxiety in children with cancer undergoing lumbar puncture: A randomized clinical trial. *Journal of Pediatric Oncology Nursing, 27*(3), 146-155. doi: 10.1177/1043454209355983

O'Callaghan, C. & Barry, P. (2009). Music therapists' practice-based research in cancer and palliative care: Creative methods and situated findings. *Voices: A World Forum for Music Therapy, 9*(3).

O'Callaghan, C. & Jordan, B. (2011). Music therapy supports parent-infant attachments: In families affected by life threatening cancer. In J. Edwards (Ed.), *Parent-infant bonding* (pp. 190-208). New York, NY: Oxford University.

Pelletier, C. (2004). The effect of music on decreasing arousal due to stress: A meta-analysis. *Journal of Music Therapy, 61*(3), 192-214.

Pfaff, V., Smith, K. & Gowan, D. (1989). The effects of music-assisted relaxation on the distress of pediatric cancer patients undergoing bone marrow aspirations, *CHC, 18*(4), 232-236.

Reed-Knight, B., Hayutin, L., Lewis, J., & Blount, R. (2011). Factor structure of the pediatric symptom checklist with a pediatric gastroenterology sample. *Journal of Clinical Psychology in Medical Settings, 18,* 299-306.

Robb, S. (2003). Coping and chronic illness: music therapy for children and adolescents with cancer. In S. Robb (Ed.) *Music therapy in pediatric healthcare: Research and evidence-based practice* (pp. 101-136). Silver Spring, MD: American Music Therapy Association.

Robb, S., Nichols, R., Rutan, R., Bishop, B., & Parker, J. (1995). The effects of music assisted relaxation on preoperative anxiety. *Journal of Music Therapy*, *22*(1), 2-21.

Rode, D. (1995). Building bridges within the culture of pediatric medicine: The interface of art therapy and child life programming. *Art Therapy: Journal of the American Art Association*, *12*(2), 104-110.

Salmela, M., Salantera, S., & Aronen, E. (2010). Coping with hospital-related fears: experiences of pre-school-aged children. *Journal of Advanced Nursing, 66*(6), 1222-1231.

Sandelowski, M. (2000). Focus on research methods whatever happened to qualitative description? Retrieved from http://www.wou.edu/~mcgladm/Quantitative%20Methods/optional%20stuff/qualitative%20description.pdf

Schreier, M. (2012). *Qualitative content analysis in practice*. Los Angeles, CA: Sage

Schwarz, BH. & Albino, JE. (1983). Effects of psychological preparations on children hospitalized for dental operations. *Journal of Pediatrics, 102*(4), 634-638.

Squires, V. (1995). Child-focused perioperative education: Helping children understand and cope with surgery. *Seminars in Perioperative Nursing, 4*(2), 80-87.

Standley, J. & Walworth, D. (2010). *Music therapy with pediatric infants: Research and developmental interventions* (2nd ed.). Silver Spring, MD: American Music Therapy Association.

Stanford, E. (2013) Developmental overview. Child life practicum training. Children's National Medical Center. Washington DC.

Sutter, C. & Reid, T. (2012). How do we talk to children? Child life consultation to support the children of seriously ill adult inpatients. *Journal of Palliative Medicine 15*(12), 1362-1368.

Swedberg, O. (2012). Music therapy as procedural support for young children undergoing immunizations: A randomized controlled study. *Electronic Theses, Treatises and Dissertations.* Paper 5292. Retrieved from http://www.diginole.lib.fsu.edu/cgi/viewcontent.cgi?article=6808&context=etd

Tan, X., Yowler, C., Super, D., & Fratianne, R. (2010). The efficacy of music therapy protocols for decreasing pain, anxiety, and muscle tension levels during burn dressing changes: A prospective randomized crossover trial. *Journal of Burn Care & Research, 31*(4), 590-597.doi: 10.1097/ BCR.0*b*013*e*3181*e*4*d*71*b*

Thompson, R. (2009). *The handbook of child life a guide for pediatric psychosocial care*. Springfield, IL: Charles C. Thomas Publisher.

Turner, J. & Fralic, J. (2009). Making explicit the implicit: Child life specialists talk about their assessment process. *Child Youth Care Forum, 38,* 39-54.

Visintainer, M.A, & Wolfer, J.A (1975). Psychological preparation for surgical pediatric patients: The effect on childrens' and parents' stress responses and adjustment. *Pediatrics, 56,* 187-202.

Waldon, E. & Broadhurst, E. (2014). Construct validity and reliability of the music attentiveness screening assessment (MASA). *Journal of Music Therapy*, *51*(2), 154-170.

Webster, A. (2000). The facilitating role of the play specialist. *Paediatric Nursing*, 12(7), 24-26.

Wells, R., & Schwebel, A. (1987). Chronically ill children and their mothers: Predictors of resilience and vulnerability to hospitalization and surgical stress. *Developmental and Behavioral Pediatrics, 8*(2), 83-89.

Whitehead-Pleaux, A. (2009). Ismaee il musika – Listen to the music. *Voices: A World Forum for Music Therapy, 9*(3).

Whitehead-Pleaux, A., Zebrowski, N., Baryza, M J., Sheridan, R. (2007). Exploring the effects of music therapy on pediatric pain: Phase 1. *Journal of Music Therapy*, *64*(3), 217-241.

Wolfe, D., & Waldon, E. (2009). *Music therapy and pediatric medicine*. Silver Spring, MD: American Music Therapy Association.

Appendix A

Topic Interview Guide

The purpose of this interview is to explore your experience with the integration of music therapy and child life interventions.

For purposes of this descriptive study, integration will be defined as the "formation, coordination or blending of practices into a functional whole" (Webster, 2013).

Integration

1. In your daily work, how do you make the decision about what intervention (MT or CL or combined) to use with a child?

2. What are the benefits of integrating the two practices?

3. What does it look like to integrate both practices? Can you give an example of when you found integration to be the most effective? Least effective?

4. How do your music therapy skills complement your child life skills? How do your child life skills complement your music therapy skills?

Integration specific interventions

At this point in the interview let's highlight when and how you choose to integrate both practices within the context of specific job duties.

5. Assessment:

What does it look like to integrate both practices in the area of assessment?

Are you using MT, CL or both for assessment?

Are you using any specific assessment tools?

6. Introduction of services:

How are you introducing services to families?

What services do you tell families that you provide as a dually certified clinician?

7. Normalization:

In what ways are you providing normalization with your patients?

What interventions have you found to be the most effective MT, CL or integration of both?

8. Group Activities:

What types of group activities are you providing?

What does integration of both practices look like with groups?

9. Coping skills:

What does it look like to integrate both practices when helping children and families cope with hospitalization?

10. Pain and anxiety management:

When a patient is in pain or has high levels of anxiety, how are you addressing his or her pain/anxiety needs through the integration of both practices?

11. Preparation for procedures:

What does integration of both practices look like in the area of preparation for procedures?

What types of procedures are you currently providing preparation for or have provided preparation in the past?

Please give an example of the integration of both practices during preparation for procedures.

12. Procedural support:

What types of procedures are you currently supporting or supported in the past?

What does integration of both practices look like in the area of procedural support?

Please give an example of the integration of both practices during procedural support.

13. Sibling support:

How are you integrating both practices when addressing the needs of siblings who come to the hospital?

Can you give an example?

14. Bereavement:

What does integration of both practices look like when you offer bereavement services in your hospital?

Can you give an example?

Interview closing

Is there anything you would like to add before we finish this interview?

Appendix B

Coding Frame

Category and subcategory definitions

Category 1 – Intervention Decision

Definition – The act of making up one's mind about how to intervene

Subcategory 1 – Specific Assessment

Definition – Evaluation

Example - "Daily assessment of individual needs" (Participant 1)

Decision Rule - If a participant uses the words assessment, plan of treatment, goal development include here

Subcategory 2 – Hospital Culture

Definition – the interactions between staff and the impact it has on patient care

Example – "getting staff to realize that I have two certifications and that I do both" (Participant 4)

Decision Rule – If a participant speaks about staff, hospital leadership, or hospital policy that influences intervention decision include here

Subcategory 3 – Clear Roles

Definition – the delineation of a participant's work responsibilities

Example – "And then the music therapy piece where I had that hat on, it was specific in terms of which referral I had and what patients I worked with so it was pretty clear in that way." (Participant 6)

Decision Rule – If a participant uses the word ‘role’ or implies that his or her role influenced his or her ability to make an intervention decision include here

Subcategory 4 – Professional Identity

Definition – The process by which a person integrates his roles as well as diverse experiences

Example – “Hired as a dual certified CLS by a dual certified CLS.” (Participant 1)

Decision Rule – If a participant includes how he or she is hired, training or words that describe professional identity that influence how an intervention decision is made include here

Subcategory 5 – Patient and Family Directed

Definition – Patient and/or family has control

Example – “Child makes the decision.” (Participant 5)

Decision Rule – If a participant refers to a child, patient, or family as reason for intervention decision include here

Subcategory 6 – Context Driven

Definition – Dependent on circumstances in the moment

Example – “Caught in the moment and what I had on me.” (Participant 3)

Decision Rule – In a participant includes situation information that does not include child, patient or family include here.

Subcategory 7 – Service Delivery

Definition – how a participant is hired impacts his or her delivery of services

Example – “I think that the challenge that comes up for the practitioner though is often times it has to do with the deployment of services.” (Participant 3)

Decision Rule – If a participant mentions service delivery or deployment of services as having an impact on intervention decision include here

Subcategory 8 – Substitutability

Definition – Both child life and music therapy interventions are capable of being put or used in place of each other

Example – “I guess more or less it is interchangeable.” (Participant 2)

Decision Rule – If a participant includes words meaning substitutability include here.

Category 2 – Specific Interventions

Definition –The actual application of formation, coordination or blending of practices into functional whole

Subcategory 9 – Introduction of Services

Definition – how a participant educates a patient and family about what he or she has to offer

Example – “When I first meet a family I do introduce what child life is and what we provide as a child life program and then I add that I am a music therapist as well and that I provide what kind of appropriate music intervention I can provide for the family so I will mention age appropriate interventions that I could provide.” (Participant 1)

Decision Rule – If a participant uses the words introduction of services include here

Subcategory 10 – Coping

Definition- cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person (Thompson, 2009, p. 164)

Example- "And it just really whatever it is music, play, toys or whatever, it is providing that positive focus for the child and helping them be able to cope."

Decision Rule- When a participant uses the words cope or struggle include here

Subcategory 11 – Emotional Expression

Definition- A participant facilitates an intervention that encourages patients or families to express how they feel

Example- "I think an example might be I am working with a child in their room in a hospital setting we're singing a song and it might be songs that they know and they are sharing something with me" (Participant 5)

Decision Rule- If a participant uses the words emotions, feelings, expression, sharing include here

Subcategory 12 – Anxiety Reduction

Definition- Integration practice aids in the reduction of an individual's mood state characterized by worry, apprehension and somatic symptoms (www.psychologydictionary.org)

Example- "I think that the best possible way to use the two modalities is to intervene prior to a medical intervention to establish a baseline of decreased anxiety and increase comfort which you can help contain that." (Participant 2)

Decision Rule-

Subcategory 13 – Pain Management

Definition- integrated practice aids in the reduction of an individual's unpleasant sensation occurring in varying degrees of severity as a consequence of injury, disease, or emotional disorder (www.dictionary.search.yahoo.com)

Example- "An example of integration would be maybe I use pain management sometimes guided meditation, every now and then this would be done normally by talking and guiding the patient but sometimes it will also be with music sometimes recorded, sometimes guitar." (Participant 1)

Decision Rule- If a participant uses the words pain include here.

Subcategory 14 – Preparation

Definition- Preparation consists of making a procedure less threatening by the provision of information using developmentally appropriate language that focuses on sensory information. In addition, "help a child to identify, practice and implement strategies that will be effective during the procedure". (Thompson, 2009, p. 165)

Example- "I can use child life to educate about what is going to happen. I can go in and say that blue thing is a tourniquet or a rubber band and tie it around your arm and give them that preparation." (Participant 4)

Decision Rule- If a participant uses the words preparation, information, education, coping strategies focused on preparation for procedures include here.

Subcategory 15 – Procedural Support

Definition- the use of strategies to promote effective coping during a procedure

Example- “And then I pulled the music into the session immediately following the medical play so we integrated some of the medical play into the music session and then as we continued with the music session we transitioned right into the procedure using music therapy to help contain and really support her for the whole intervention.” (Participant 2)

Decision Rule- If a participant uses the words procedure, support, distraction, alternate engagement include here

Subcategory 16 – Normalization

Definition- Engagement in activities that a patient experiences outside of the hospital environment

Example- “It shows them that the hospital is not a place full of scary things but there are also normal things that they enjoy doing outside of the hospital environment.” (Participant 2)

Decision Rule- If a participant uses the word normal or normalization include here

Subcategory 17 – Group Activities

Definition- a group consists of at least one patient and a family member

Example-”Yes, in the playroom yes. I do a music group in the playroom fairly regularly especially for younger ones.” (Participant 1)

Decision Rule- If a participant uses the word group include here

Subcategory 18 – Bereavement services

Definition- services provided when there is a patient death

Example- “Bereavement in general what I do for family support again is very music therapy based with the patient involved even if I play passive music as the patient is dying or throughout that process right before so that the family has something to connect with.” (Participant 4)

Decision Rule- If a participant uses the words bereavement, loss, pass away, memorial include here.

Category 3 – Benefits of Integration

Definition – A good and helpful result of formation, coordination or blending of practices into a functional whole

Subcategory 19 – Flexibility

Definition- Allows an individual to make changes to the manner of how he or she works

Example- “I think it allows a great deal of flexibility in how I can deliver developmentally appropriate psychosocial services.” (Participant 2)

Decision Rule- If a participant includes words that include how he or she can adapt and/or make decisions as a benefit of integration include here

Subcategory 20 – Broader Scope

Definition- Has a larger range of responsibility and boundaries

Example- “It gives us a broader scope.” (Participant 5)

Decision Rule- If a participant refers to a lager range of tools or services he or she can offer as reason for benefits of integration include here

Subcategory 21 – Complementary

Definition- Either of two parts complete the whole (www.thefreedictionary.com)

Example- “I think music and play are the two components of both of those disciplines and they complement each other very well.” (Participant 5)

Decision Rule- If a participant uses the word complement include here

Subcategory 22 – Marketability

Definition- in demand by employers (www.dictionary.search.yahoo.com

Example- “I can think of one program in particular who said they would love to have all their music therapists who are dual certified even if they were primarily hired for music therapy just having that extra training that they really considered that the prize and made that sort of sought after in the field so it is sort of interesting that you do see the benefit of it.” (Participant 3)

Decision Rule- If participant discusses marketability related to child life credential include here

Category 4 – Dual Certified Training

Definition – A participant’s training in music therapy and child life practices

Subcategory 23 – Benefits of music therapy training

Definition- Advantages of music therapy training

Example- “I think that the music therapy training may have afforded me insight into abnormal psychology and into psychosocial aspects.” (Participant 1)

Decision Rule- If a participant uses the words training, education or skills in conjunction with music therapy include here

Subcategory 24 – Benefits of child life training

Definition- Advantages of child life training

Example- “the developmental piece of the child life education really helped me to best meet the needs of the child and family in the moment” (Participant 2)

Decision Rule- If a participant uses the word training, education or skills in conjunction with child life include here

Subcategory 25 – Differences in music therapy and child life training

Definition- instances of disparity or unlikeness in training (www.dictionary.search.yahoo.com)

Example- “I said in school our practicums were providing services and so it is not just observing something happening so when I got to my internship I was fine tuning, I wasn’t necessarily learning some of these things.” (Participant 3)

Decision Rule-

Subcategory 26 – Future restrictions

Definition- future limits (www.dictionary.search.yahoo.com)

Example- “and they have really changed their certification requirements so it is going to be much harder as time goes on for those of us who were able to use parts of our music therapy education to become certified in child life. It is going to be much harder to do that in the future. They are going specifically to Masters only in the next years or so or less, 2020 or 2019.” (Participant 6)

Decision Rule- If a participant speaks of the future of dual certification include here