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Music Therapy Perceptions And The Status Of Collaboration And Co-Treatment Among Other Disciplines Of Therapy In Pediatric Outpatient Settings

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MUSIC THERAPY PERCEPTIONS AND THE STATUS OF COLLABORATION AND CO-TREATMENT AMONG OTHER DISCIPLINES OF THERAPY IN PEDIATRIC OUTPATIENT SETTINGS

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ABSTRACT

The purpose of this study was to explore perceptions of music therapy as well as the status of collaboration and co-treatment among licensed therapists in the Southeastern region working in pediatric outpatient facilities ($N = 57$), specifically physical therapists ($n = 19$), occupational therapists ($n = 20$) and speech-language pathologists ($n = 18$). The researcher specifically sought to determine whether respondents viewed music therapy as an effective and beneficial form of treatment for pediatric clients, whether they collaborate and/or co-treat with music therapists in their practice, what populations they work with in co-treatment if it does take place, which discipline of therapy co-treats with a music therapist most frequently, which therapeutic goals and assessment/consultation tasks they believe a music therapist is able to address in their treatment, how frequently, and under what circumstances, they refer clients for music therapy and whether they believe music therapy services would benefit any of their current clients. Overall, 30% of respondents indicated they currently worked with a music therapist and 18% indicated they worked with a music therapist in a previous job. Results found that 100% of therapists who either currently worked with a music therapist or worked with one in a previous job found it to be an effective and legitimate form of therapy. In total, 95% of respondents found music therapy legitimate and beneficial. Eighty eight percent of therapists currently working in a facility with a music therapist agreed they collaborate with the music therapist on staff and 59% indicated they co-treat. Reasons for not co-treating included issues with billing, scheduling, perceptions, lack of opportunity and co-treating not being appropriate for clients. Ninety one percent of respondents indicated they believe co-treating with a music therapist would benefit some of their current clients, illustrating the need to continue looking into co-treatment as a more viable option for therapeutic disciplines.

CHAPTER ONE

INTRODUCTION

Music is one of the universal languages and is recognized for the profound effects it has on the human brain. From stimulating memories (Tomaino, 2002) to influencing mood and physiological responses such as heart rate and blood pressure (Byers & Smith, 1997; Krumhansl, 1997), music interventions hold a unique ability to enhance therapeutic aims for people of all ages and abilities. Music could also be used in collaboration with other therapies in order to provide a more holistic and patient-centered approach to treatment. The American Music Therapy Assocation (AMTA) defines music therapy as "an established health profession in which music is used within a therapeutic relationship to address physical, emotional, cognitive, and social needs of individuals" (AMTA, 2005, para. 2). As research continues to emerge on the benefits of music therapy for a variety of populations, the need for improved establishment among other professionals is evident.

In pediatric settings, physical therapy, occupational therapy and speech-language pathology are common therapies necessary to enhance the development of children with a variety of needs. The music therapist may play an important role on a therapeutic treatment team, providing a unique approach to treatment that may motivate and hold the attention of children who demonstrate an enjoyment of music. According to Alley (1977), music therapists are a crucial part of an educational team because of the profession's broad scope of practice, allowing the music therapist to also act as a "service-gap filler, a problem solver, a curriculum support service" (Alley, 1977, p. 54). However, in order for a music therapist to use their unique skills in the best way possible, there must be a clear understanding of their role on the team as well as respect among all disciplines of therapy. The current study explores perceptions of music

therapy as seen from the eyes of licensed physical therapists, occupational therapists and speech-language pathologists who specifically treat children aged 0-21 with various special needs. An overview of the population as well as each individual therapy, followed by an overview on collaborative teams and insurance and reimbursement will be provided.

Overview of Children with Disabilities

The World Health Organization (WHO) identifies "disability" as an umbrella term, which includes impairments, activity limitations and participation restrictions (WHO, 2013). The Centers for Disease Control and Prevention (CDC) list nine different domains that can be affected by a disability: Hearing, vision, movement, thinking, remembering, learning, communicating, mental health and social relationships (CDC, 2010). According to the U.S. Census Bureau, in 2010, about 2.8 million of 53.9 million school-aged children were reported to have a disability (U.S. Census Bureau, 2010). This count did not include children who were institutionalized in juvenile correctional facilities or residential schools for people with disabilities. Because there are a wide variety of disabilities that range from mild to profound, it is important to recognize them all individually and treat them as such. The treatment of people with disabilities has improved vastly throughout history, including the availability of an equal education and special services for these individuals.

Disability Laws

Throughout the 1800s, students with disabilities did not receive public education. Once they did, it was in a segregated environment, allowing no interaction with typically functioning students (Adamek & Darrow, 2010). Currently, students with disabilities receive the proper education and related services they need due to the Individuals with Disabilities Education Act (IDEA 2004), which mandates that students receive education in the least restrictive environment

(LRE). The law is clear in stating eligibility requirements for special education and related services for children ages three and under who are diagnosed with a disability or at-risk (Part C) and school-aged children ages three to twenty-one (Part B). Part B of IDEA gives a detailed explanation of the types of disabilities that render a child eligible for special education and related services once an individual reaches the age of three. Sec. 300.8, paragraph (a)(1) defines a child with a disability as one having "mental retardation, a hearing impairment (including deafness), a speech or language impairment, a visual impairment (including blindness), a serious emotional disturbance (referred to in this part as "emotional disturbance"), an orthopedic impairment, autism, traumatic brain injury, an other health impairment, a specific learning disability, deaf-blindness, or multiple disabilities, and who, by reason thereof, needs special education and related services" (IDEA 2004, Reg. Sec. 300.8). While the law does a thorough job defining eligibility for services, it is important to note that this list is not exhaustive, and that individual needs will play a part in deciding whether or not a child qualifies for special services. Also, state eligibility requirements vary in their terminology, which causes differences in procedures from state to state (Snell, 2006).

The common factor between all of the types of disabilities listed above is that they adversely affect a child's educational performance, causing special education and related services to be necessary. With parental consent, an initial evaluation is done through a public agency in order to assess what services the child will need. Initial evaluations must be conducted within 60 days of receiving parental consent, unless outlying circumstances occur. Initial evaluations will determine a) if a child is considered to be a child with a disability based on information in Sec. 300.8 of IDEA and b) the child's educational needs based on the findings of the initial evaluation (Sec. 300.301 (c) (2), 2004). After evaluations are complete, an

Individualized Family Service Plan (IFSP) is created for individuals covered under Part C of IDEA and an Individualized Education Plan (IEP) is created for those covered by Part B.

There are a variety of related services offered to children with special needs through IDEA. Related services are defined as "transportation and such developmental, corrective, and other supportive services as are required to assist a child with a disability to benefit from special education (Sec. 300.34 (a) 2004). This includes different types of therapies, counseling services, medical services, psychological services, recreation, school health services and parent counseling and training. The utilization of these related services is dependent upon the individual needs of each child. "Related services" does not include services for children with cochlear implants or other surgically implanted devices, including maintenance or replacement of these devices. However, individuals with surgically implanted devices still have the right to any related service necessary in order to receive a Free Appropriate Public Education (FAPE) (Sec. 300.34 (b) (1) (2) 2004). Physical therapy, occupational therapy, speech-language pathology and music therapy are all considered related services under IDEA 2004.

Overview of Physical Therapy

The profession of physical therapy began in 1917 after the polio epidemic in America and World War I. "Reconstruction aides" provided rehabilitation services to injured soldiers, and by 1921, the American Physical Therapy Association (APTA) was formed (Today's Physical Therapist, 2011). Physical therapists are "health care professionals who maintain, restore, and improve movement, activity, and health enabling individuals of all ages to have optimal functioning and quality of life" (Today's Physical Therapist, 2011, Ch. 1). Professional roles of a physical therapist include "providing consulting, education, research, and administration services" (Today's Physical Therapist, 2011, Ch. 2). In addition to providing rehabilitation and

habilitation services, physical therapists are also able to provide prevention services by promoting health and fitness in order to reduce the risk of physical decline. A Doctor of Physical Therapy (DPT) degree will be required for entry-level practice after January 2016, and currently, there are 33,800 entry-level DPT graduates. State licensure is required in every state and must be renewed regularly along with continuing education and competencies. In order to collaborate successfully with other health care professionals, physical therapists use a standard language provided in the World Health Organization's (WHO) International Classification of Functioning, Disability and Health (ICF). It is broken down into two parts: (1) Functioning and disability and (2) Contextual factors. This standardized language ensures that physical therapy is provided based on individual needs in a variety of settings (International Classification of Functioning, Disability and Health, 2001).

Overview of Occupational Therapy

According to the American Occupational Therapy Association's (AOTA) Model Practice Act, occupational therapy "addresses the physical, cognitive, psychosocial, sensory-perceptual, and other aspects of performance in a variety of contexts and environments to support engagement in occupations that affect physical and mental health, well-being, and quality of life" (AOTA, 2004a). Occupational therapists promote health and well-being by enhancing an individual's ability to take part in activities of daily living (ADL). This can be achieved over time by modifying tasks or adjusting environmental factors in order to improve independence in occupational functioning (American Occupational Association, 2013). According to IDEA, all children have a right to a free and appropriate public education, which involves receiving this education in the "least restrictive environment". Occupational therapists' roles in school settings require them to assess the factors preventing a child from reaching their full potential and make

adaptations in order to enhance overall functioning. This may involve teaching life skills and creating adaptations to completing these skills in order to promote independence, working on sensory integration in order to improve a child's functioning in any given environment and most importantly, educating other professionals on the individual needs of each child so that proper measurements for the child's success will be taken during the absence of the licensed occupational therapist (AOTA, 2013). With their specialized knowledge, occupational therapists are a crucial part of a collaborative team in ensuring a free and appropriate public education for each individual.

Overview of Speech-Language Pathology

The American Speech-Language Hearing Association's (ASHA) scope of practice describes the roles of a speech-language pathologist as engaging in "clinical services, prevention, advocacy, education, administration, and research in the areas of communication and swallowing across the life span from infancy through geriatrics" (American Speech-Language-Hearing Association, 2013). Speech-language pathologists utilize the best available evidence-based practice, which consists of the highest research evidence combined with expertise of practitioners who take into account the preferences and values of the individuals they treat. In order to practice, Speech-language pathologists must hold the ASHA Certificate of Clinical Competence in Speech-Language Pathology (CCC-SLP), which requires a masters or doctoral degree. They also "complete a supervised postgraduate professional experience and pass a national examination" (ASHA Scope of Practice, 2007) and depending on the requirements where they practice, receive state licensure and other necessary certifications. According to the United States Department of Labor's Bureau of Labor Statistics, it is expected that careers in speech-language pathology will grow "23% from 2010 to 2020, faster than the average for all

occupations" (U.S. Bureau of Labor Statistics, 2012). Due to the baby-boom population growing older and experiencing strokes, hearing loss and other injuries, there will be an increase in demand for speech-language pathologists (U.S. Bureau of Labor Statistics, 2012). Because speech-language pathology is such a broad field, speech-language pathologists (SLPs) are able to aim their education, training and experience to specialize in a specific area. ASHA's Code of Ethics supports this by stating in Section II(B) that "individuals shall engage in only those aspects of the professions that are within the scope of their professional practice and competence" (ASHA Code of Ethics, 2010).

Overview of Collaborative Therapy Teams

In the literature, three different team approaches are described: Multidisciplinary, interdisciplinary and transdisciplinary teams. Oftentimes, these three terms are used interchangeably, especially multidisciplinary and interdisciplinary teams. However, each approach is defined individually in literature. A multidisciplinary team approach is one where team-members all deliver services separately, and are only responsible for their discipline. While this team approach likely creates the least amount of conflict within disciplines, it is not necessarily the most beneficial approach for clients (Catlett & Halper, 1992). In an interdisciplinary approach, there is collaboration among team members in forming common goals, but therapy is done separately, with collaboration occurring behind the scenes. In a transdisciplinary approach, different professions work together to reach common goals at the same time, often involving a crossing of disciplines and boundaries (Hobson, 2006). Based on these definitions, co-treatment would be utilized in a transdisciplinary model.

When a child receives an IFSP or IEP, there are many professionals involved in making sure that the program is being implemented properly. Often, these professionals are not all

employed in the same facility, so it is their job to reach out to other professionals when necessary in order to work together to reach common goals (AMTA, 2004). In the treatment of children with special needs as defined by IDEA, a team can consist of physical therapists, occupational therapists, speech-language pathologists, music therapists, art therapists, special education teachers, caregivers, behavioral consultants, assistive technology staff, social workers, paraprofessionals, physicians and of course, the parents or guardians of the child (Allgood, Carnahan, Fahsbender, Grossardt, & Storm, 2003). A multidisciplinary team approach is extremely beneficial for a child because professionals from a variety of disciplines are able to use their specialized knowledge to work toward the overall improvement of a child's functioning. Throughout this team, there are ample opportunities for collaboration of ideas and treatment plans. Combs (2002) defines collaboration as a "voluntary endeavor, in which there is a common goal, shared responsibility for decisions, accountability for outcomes, and a belief that all participants involved have something valuable to contribute" (p. 33). By working together and contributing ideas, a collaborative team approach helps to improve the overall functioning and ability of each individual being served.

Insurance and Reimbursement of Therapy Services

Caring for a child with special needs can be extremely expensive for family members and caregivers. When institutionalization of children with disabilities was the norm, public funding often supported the care and services necessary for children. With deinstitutionalization, the monetary responsibility lies primarily in the parents or caregivers of each individual child (Anderson, Dumont, Jacobs and Azzaria, 2007, p. 4). Insurance plays a major role in whether or not children receive the appropriate services they need in order to properly enhance their development. Weller, Minkovitz and Anderson (2003) found that children with public insurance

were most likely to receive necessary services, more often than those with private insurance. Expectedly, children without insurance were less likely to use services, including health services such as annual physician visits. There are a variety of different insurance options depending on individual situations. The most common are Medicare and TRICARE, which are provided on the federal level, and Medicaid, which is provided on the state and federal level. According to the American Music Therapy Association's 2012 Member Survey and Workforce Analysis, 16% of practicing music therapists indicated receiving third party reimbursement for their services. Currently, Medicaid provides coverage for over 31 million children in the United States. While minimum guidelines are set nationally, states can make changes as they see fit. Physical therapy, occupational therapy and speech, hearing and language disorder services are considered "optional benefits" and are covered based on each individual's needs (Medicaid, 2013). Most states develop contracts with networks and pay providers in order to pay facilities or organizations for their services, including therapies. This method is utilized among about 70% of Medicaid enrollees (Medicaid Financing and Reimbursement, 2013). In order to receive coverage for therapy services, a physician's referral is required along with a Plan of Care written by the therapist along with an initial evaluation and reevaluations when necessary. Progress notes must be kept in order to prove that the therapy services are helping each individual to reach the goals stated on their Plan of Care, as well as render justification for the need of more or less therapy depending on the individual's progress.

Purpose

The purpose of this study was to explore perceptions of music therapy as well as the status of collaboration and co-treatment among licensed therapists in the Southeastern region working in pediatric outpatient facilities. This study aimed to answer the following questions:

Research Questions

Of those surveyed:

1. Do physical therapists, occupational therapists and speech-language pathologists view music therapy as an effective and beneficial form of treatment for pediatric clients?
2. Do physical therapists, occupational therapists and speech-language pathologists in the Southeastern region collaborate and/or co-treat with music therapists?
3. With what populations do therapists work with when co-treating with a music therapist?
4. Which discipline of therapy co-treats with a music therapist most frequently?
5. Which therapeutic goals do the three disciplines of therapy believe a music therapist is able to address in their treatment of pediatric clients?
6. What assessment or consultation tasks do the three disciplines of therapy believe a music therapist should be responsible for?
7. How frequently, and under what circumstances, do physical, occupational and speech therapists refer their own clients for music therapy services?
8. Do physical, occupational and speech therapists believe that co-treating with a music therapist would benefit any of their clients?

Operational Definitions

The following are the operational definitions used for this study:

Pediatric outpatient facility – For the purpose of this study, the researcher defines a pediatric outpatient facility as one that provides physical, occupational and speech-language pathology to children with a variety of special needs. Additionally, therapy is provided in the facility or in the child's home or school. For the purpose of this study, only facilities serving clients aged 0-21 were surveyed.

Physical therapy – "therapy for the preservation, enhancement, or restoration of movement and physical function impaired or threatened by disability, injury, or disease that utilizes therapeutic exercise, physical modalities (as massage and electrotherapy), assistive devices, and patient education and training" (Physical therapy, n.d.).

Occupational therapy – "therapeutic use of self-care, work, and recreational activities to increase independent function, enhance development, and prevent disability; may include adaptation of tasks or environment to achieve maximum independence and optimal quality of life" (Occupational therapy, 2013).

Speech-language pathology – "A speech-language pathologist is responsible for the diagnosis, prognosis, prescription, and remediation of speech, language, and swallowing disorders. A speech-language pathologist evaluates and treats children and adults who have difficulty speaking, listening, reading, writing, or swallowing. The overall objective of speech-language pathology services is to optimize individuals' ability to communicate and swallow, thereby improving quality of life (American Speech-Language-Hearing Association, 2013).

Music therapy – "An established health profession in which the clinical and evidence-based use of music and music activities address and seek to accomplish individualized goals and objectives

within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program and undergone training in multiple populations and settings (American Music Therapy Association, 2005).

Multidisciplinary team – A team where professionals of varying disciplines focus on their area of expertise in order to meet a client's needs. While the team treats the same individuals, they do it through separate modalities, implementing their own goals and interventions in order to treat a client (Hobson, 2006).

Interdisciplinary team – Team members from varying disciplines work together to create common goals for clients, but each discipline uses their area of expertise to treat separately. This approach involves collaboration among professions in sharing ideas in order to enhance the client's overall functioning (Hobson, 2006).

Transdisciplinary team – This approach releases traditional roles of each therapeutic discipline by working together on the same goals at the same time in order to enhance the overall functioning of a client. Often, therapists will use techniques from other disciplines in order to enhance their treatment, putting more of an emphasis on client needs than professional titles (Hobson, 2006).

CHAPTER TWO

REVIEW OF LITERATURE

A multitude of research has been conducted to explore the use of music therapy techniques to treat children with a variety of needs. Music therapy as a treatment modality is individual in the fact that it is able to address deficits in a wide variety of domains, including but not limited to: Behavior, cognition, motor, communication, sensory integration and socio-emotional skills (Chase, 2004; Hanser, 1999). In the treatment of children with disabilities, Farnan (2007) projects "music therapists working with this population will need to replicate and standardize intervention techniques, increase knowledge of payment and reimbursement, be able to define intervention length and outcomes, be able to partner with other team members and be able to add value to the team" (p. 85). Due to the broadness of this discipline, there are endless opportunities to collaborate with other professional disciplines in order to enhance therapeutic outcomes of children with special needs, requiring further research to establish evidence-based practice for collaborative treatment.

Music Therapy and Children with Disabilities

Intellectual Disabilities

Children with intellectual disabilities are placed in categories of mild, moderate, severe, or profound. Within this population, a variety of limitations can be present, including deficits in motor skill development, hearing and visual impairments and limitations in at least two adaptive skill areas. These areas include "communication, self-care, home living, social skills, community use, self-determination, health and safety, functional academics, leisure and work" (DeBedout & Worden, 2006, p. 124). Music therapy to enhance functioning of individuals with Intellectual Disabilities emerges frequently in the literature, especially with the addition of music

therapy as a related service in IDEA 2004. It has also been noted in literature that children with intellectual disabilities' emotional responses to music were similar to those of a typically functioning child (Humpal, 2006). Music therapy has also been found to motivate individuals to interact with others and respond to outside stimuli. For example, DeBedout and Worden (2006) compared switch-activated toys and the presence of a live music therapist in interactions with children with severe intellectual disabilities. It was found that interaction with a live music therapist elicited higher movement responses. While the costs of adaptive equipment and assistive technology can sometimes be too much for facilities or caregivers, music therapy can be a cost-effective alternative for motivating children with intellectual disabilities.

Autism Spectrum Disorder

Research investigating treating children with Autism Spectrum Disorder (ASD), has also found statistical significance in the positive effects of music interventions when conducting a meta-analysis of music versus non-music approaches (Whipple, 2004). Standley and Whipple (2003) found an effect size of $d = .64$ through a meta-analysis of pediatric music therapy research, which indicated the effectiveness of music therapy techniques in pediatric medical settings, especially with infants and adolescents.

In an analysis of goals and outcomes of clients with Autism Spectrum Disorder receiving music therapy, Kaplan and Steele (2005) found that 100% of parents and caregivers surveyed responded that skills learned in music therapy treatment were generalized into other environments. Additionally, primarily goal areas included behavioral/psychosocial goals, language/communication goals, perceptual/motor goals, cognitive goals and music goals. Results showed that all initial objectives of those surveyed were achieved within the first year of intervention, indicating positive benefits of music therapy in enhancing a multitude of skills in

children with ASD while also helping them to generalize these skills into non-music therapy environments.

Behavior Disorders

Music therapy techniques have also been found to be useful as a positive reinforcement, which can help to increase a wanted behavior or decrease an unwanted behavior (Hanser, 1999). Music interventions can also provide a wonderful distraction in a group setting. In addition, music therapy can also help decrease behaviors that may hurt the individual. For example, DeBedout and Worden (2006) found music therapy experiences increased motivation and self-determination of individuals who exhibited "self-injurious behavior and learned helplessness" (p. 124).

Collaboration with other Professionals

Collaboration is the "process of working jointly with others in an intellectual endeavor to bring about change, and it implies shared responsibility" (Register, 2002, p. 305). Because music therapy is able to address such a wide variety of domains of functioning, collaboration with other therapeutic disciplines or professionals is not only beneficial, but it is oftentimes necessary in order to provide a cost-effective, holistic approach to treatment. The field of music therapy is made up of a variety of ideologies and philosophies. Therefore, it is the responsibility of the music therapist to educate other professionals of the role they are able to assume on the therapeutic team. Register (2002), who surveyed board-certified music therapists to gain an understanding of collaboration and consultation currently taking place among music therapists and other professionals, implies that it is the responsibility of the music therapist to make their ideologies and principles clear by consulting with other professionals and clearly defining their roles so that collaboration without confusion or conflict may take place. Of those surveyed in her

study, the highest amount of collaboration took place amongst the music therapist and the parent, caregiver or other family member of the patient being treated (Register, 2002). Additionally, 47.2% of music therapists indicated they collaborated with occupational therapists, 44.6% with speech-language pathologists and 40.3% with physical therapists. A large majority (87.5%) of respondents revealed that collaboration takes place when discussing treatment of clients.

Other collaborations included medical personnel, educators, clients, administration and other music therapists. There seems to be a limited amount of research concerning collaboration among music therapists and other professionals, but Register's 2002 study does give a foundation for further research on what types of specific collaboration takes place, as well as whether or not co-treating takes place between therapeutic disciplines. For the purpose of this research, collaboration and co-treatment with physical therapy, occupational therapy and speech-language pathology will be explored.

Music Therapy and Physical Therapy

According to Register (2002), 40.3% of music therapists who completed a survey on collaboration and consultation indicated they have collaborated with a physical therapist. While there seems to be minimal literature on a co-treatment model between music therapy and physical therapy, there is ample research to support the use of music therapy in physical rehabilitation, especially the use of Rhythmic Auditory Stimulation (RAS) to enhance gait training and other motor movements that can be considered biologically rhythmic (Rice, Thaut, McIntosh & Miller, 1995; Hurt, Rice, McIntosh, & Thaut, 1998; Thaut, 1999; Thaut, McIntosh, Prassas & Rice, 1993, Claire & O'Konski, 2006; Kwak, 2007). Hurt, Rice, McIntosh & Thaut (1998) explored the use of RAS with patients with traumatic brain injuries who were no longer progressing with conventional physical therapy, and found that over time, RAS treatment

showed significant increases in stride length, cadence and velocity of gait. Hayden, Clair, Johnson & Otto (2009) explored physical therapy outcomes when RAS was added as a co-treatment to the typical physical therapy treatment protocol to assess the feasibility of RAS as a treatment to enhance gait training following a stroke. Results showed significant improvement in all treatment groups, although the exact effects of the RAS were unclear. However, it was noted that RAS is a cost-effective protocol due to its requirement of minimal equipment and can be "easily nested within conventional physical therapy treatment regimens making it convenient and feasible in the clinical setting" (p. 2193), demonstrating the effectiveness of co-treatment among music and physical therapists.

Rhythmic auditory stimulation also proved to be beneficial for older adults with late-stage dementia by requiring less physical assistance during gait training exercises (Clair & O'Konski, 2006). Rhythmic auditory stimulation is based on the idea of auditory entrainment, which is "the body's ability to synchronize its movements rhythmically" (Kwak, 2007, p. 199). Because RAS is proven to be beneficial with adults in rehabilitation settings, Kwak (2007) aimed to find out whether children with spastic cerebral palsy, who also have difficulty with coordination and muscle control, could benefit from this treatment protocol. Results indicated therapist-guided RAS did influence gait performance of the participants, but individual factors did affect therapeutic gain.

Music therapy in physical rehabilitation presents a multitude of benefits for patients of all ages. Oftentimes, rehabilitation exercises are strenuous and uncomfortable, and music therapists are able to use patient-preferred music to provide distraction and motivation during the completion of exercises (Paul & Ramsey, 2000). This is evident in a case study where recorded music was used during physical therapy to treat an infant with Erb's Palsy. With the addition of

simply listening to music during physical therapy, the child's crying decreased and there was an increase in parent satisfaction of therapy (Rahlin, Cech, Rheault & Stoecker, 2007). There were not significant gains in all aspects of the treatment, but this could be due to the fact that a music therapist was not involved to control the music stimulus in order to enhance the therapeutic experience. Therefore, it seems music therapy conducted by a board-certified music therapist is a viable treatment tool that should be further explored in collaboration with physical therapy in order to enhance rehabilitation and motor goals for clients who are motivated by preferred songs or music interventions.

Music Therapy and Occupational Therapy

Register (2002) found that 47.2% of professional music therapists agreed to have collaborated with an occupational therapist at some point in their career, which is the highest percentage of any other therapeutic discipline. This is likely due to the fact that there are a multitude of implications for collaboration and co-treatment among music therapists and occupational therapists. However, there is minimal research focused on collaboration and co-treatment between the two disciplines. Fortunately, many goals and objectives that can be overlapped amongst the two disciplines are explored in music therapy research, with reference to occupational therapists (Paul & Ramsey, 2000; Farnan, 2007). With proper collaboration of music and occupational therapy, professionals are able to create successful ways for a patient to engage in a musical experience with the involvement of adaptations to the environment or manipulatives used in sessions, while also addressing multi-sensory needs of individuals (Paul & Ramsey, 2000). Successive approximation involves shaping of an environment or behavior. By making a task mistake-proof for a patient, the success will likely motivate them to continue working hard until a desired goal or skill is achieved. With their knowledge, occupational

therapists can assist a music therapist in the adaptation of tasks, creating a positive therapeutic environment for the individual being treated (Paul & Ramsey, 2000).

Music Therapy and Speech-Language Pathology

According to the AMTA Member Survey and Workforce Analysis (2012), 112 out of 1,361 AMTA members that completed an annual members survey indicated they work with clients with speech impairments. Register's 2002 survey of collaboration and consultation among music therapists and other professionals indicated 44.6% have collaborated with a speech-language pathologist. Speech-language pathologists work with clients in a variety of settings with speech impairments, as well as deficits in learning, memory and swallowing. Music therapists are trained to adapt music elements in order to promote communication and motivate therapeutic outcomes, while also adding an element of enjoyment to a typical therapy session (Geist, McCarthy, Rodgers-Smith, & Porter, 2008).

Hobson (2006) outlines effective collaboration among music therapists and speech-language pathologists when working with clients with neurogenic communication disorders (NCD). Hobson points out that in order for proper collaboration to occur, both disciplines must be aware of the scopes of practice and code of ethics of the disciplines they are collaborating with. Research has been conducted to assess the extent to which music therapists work with speech-language pathologists. Upon surveying 847 music therapists on their current or past work with speech-language pathologists, McCarthy, Geist, Zojwala, & Schock (2008) found results that suggested "about 3 out of every 4 MTs can expect to work with an SLP at some point in their career" (p. 412). Of the therapists surveyed, about 45% indicated they have co-treated with a speech-language pathologist (SLP) during an SLP's session and about 55% indicated they co-treat during SLP sessions in their current work. About 55% of music therapists revealed that

a speech-language pathologist has joined their session to co-treat in past work, while 70% revealed a speech-language pathologist has joined their session to co-treat in a current job.

Benefits and challenges of collaboration among these disciplines were also outlined in this McCarthy et al. study. Among common benefits were the following themes: "Enhancing Knowledge, Enhancing Goals, Enhancing Client Progress, Enhancing Professional Support, Enhancing Ingenuity and Once SLPs see the benefit, they keep coming back" (p. 413). Participants also revealed that the multiple modalities used for therapies helped clients to carry over their skills to environments outside of therapy (p. 414). Other benefits indicated were that both disciplines of therapy used more creative approaches in their treatment and speech-language pathologists "took more initiative in fostering partnerships by requesting MT services again or making referrals" (p. 414). The most frequent challenge of collaboration indicated in McCarthy et al.'s study was conflicts of scheduling. A lack of knowledge about music therapy as well as skepticism about the field in general also hindered successful collaboration. This further illustrates the importance of educating other disciplines of therapy on the use and benefit of music therapy within individual settings.

While literature documenting a co-treatment model between music therapy and speech-language pathology is sparse, some literature exists which has positive effects, emphasizing the need for continued research on collaboration and co-treatment among therapists. Bruscia (1982) described collaboration among music therapy and speech-language pathology to decrease an individual's echolalia, and as a result, the subject's echolalia was reduced from 95% to less than 10%. A case study by Geist, McCarthy, Rodgers-Smith, & Porter (2008) illustrated outcomes, procedures and experiences of a collaboration experience between a music therapist and speech-language pathologist when working with a young child with a global developmental delay. With

collaboration of the speech-language pathologist and the music therapist, the child's social and on-task behavior increased in his classroom while unwanted behaviors such as toe-biting and walking away from a task decreased with the addition of motivating music interventions. The authors point out that it is important to conduct assessments in both music therapy and speech-language pathology to ensure a client is a proper candidate for both disciplines.

Perceptions of Music Therapy

While the field of music therapy has grown tremendously and continues to expand, it is expected that misperceptions and lack of knowledge will exist among family members or other healthcare professionals. Research exists in the literature regarding perceptions of music therapy from the viewpoint of parents/caregivers, professionals and patients receiving music therapy services. Allgood (2005) explored parents' perceptions of family-based group music therapy sessions through a pre and post-session interview and focus group. Parents described the music group as an "equal playing field" for their children to "take risks by expressing themselves musically and reaching out to others to interact with their surroundings" (p. 98). Not only were the music groups able to improve social interaction with children and their peers, they were also able to improve interactions between children and their parents, giving them new tools for connecting and engaging with each other through music. The non-threatening atmosphere that can be created by a music group gave the children with autism, their parents, siblings and peers a way to interact in a safe environment. Allgood's study illustrates the importance of family involvement for both benefiting a child's overall improvement and advocating for music therapy as an effective and beneficial treatment tool for children.

In order for jobs in the field to continue growing, it is vital that professionals working in all types of facilities are familiar with the benefits of music therapy. Because parents can often

be involved in the therapeutic experience or can see firsthand the benefits of music therapy through changes in their children's behavior, it seems that positive perceptions and knowledge of music therapy are linked to being exposed to a music therapy experience firsthand. While parent and professional perceptions are important to explore, it also seems helpful to explore perceptions of music therapy from a patient's standpoint, if that patient is at a cognitive level where they are able to express their personal opinions. Choi (1997) surveyed both patients and professionals of psychiatric hospitals about their attitudes and knowledge of music therapy. The study also surveyed music therapists working in these facilities to gain further insight on how they view their role as part of the interdisciplinary team. Choi's study yielded interesting results concerning perceptions and attitudes about music therapy from the staff members of the psychiatric hospitals. As expected, it was found that music therapy received more positive responses when participants had observed a music therapy session firsthand. Additionally, it was found that "psychologists and social workers responded relatively negatively to treatment goals that they considered to be 'their' treatment areas, and that they valued music therapy primarily as therapeutic recreation" (p. 286).

The Choi 1997 study brought to attention the issues of the expected and perceived roles of a music therapist on a treatment team as well as the importance of clearly defining roles among all professionals within an interdisciplinary team before beginning treatment in any population. Hilliard (2004) surveyed hospice administrators on their knowledge of music therapy over a six-year period and found that the majority of administrators were familiar with music therapy and its benefits. However, his findings uncovered the need for "education regarding potential funding sources, clarification of professional roles, and the business benefits to adding a music therapy program to the hospice" (p. 107). It was also mentioned that the roles

of the music therapist on staff would need to be clearly established so as not to confuse them with a volunteer musician. Additionally, Ropp, Caldwell, Dixon, Angell, & Vogt (2006) surveyed special education administrators in the state of Illinois and found a significant correlation between positive perceptions of music therapy and personal experience with it, as well as learning about the field during graduate studies (p. 90). Due to the fact that many administrators are responsible for deciding how to utilize funding for programs in their facilities, their perceptions of music therapy are vital. Ropp et al. point out that because personal experience or observation of music therapy plays a large role in positive perceptions, that it may benefit the field for music therapists to provide sessions in which administrators are able to observe, even if they do not charge for these sessions. Another suggestion is to organize workshops that administrators and other faculty members can attend in order to further their education in the field of music therapy (p. 92).

While it is extremely important that administrators of programs are well aware of the field of music therapy, how it is used to treat clients and why it is beneficial, it is equally, if not more important that staff members in a facility are aware of the role a music therapist plays on an interdisciplinary or multidisciplinary team. In order for a team to work together successfully, it is important that all roles are clearly defined. AMTA Professional Competencies clearly states the importance of defining the role of music therapy on a treatment team as well as understanding the roles of other disciplines on the treatment team and using an interdisciplinary approach in order to collaborate with them and best serve clients (AMTA, 2004, pp. 27-29).

Research on perceptions of music therapy is also useful because it uncovers how music therapy sessions can affect the work environment of other professionals. A recent study has shown that music therapy sessions can give paraeducators in classrooms opportunities to learn

new information about what motivates their students as well as what they are capable of. Abbott and Sanders (2012) surveyed twenty paraeducators working in a special education center where music therapy group services were provided 2.5 days per week. During focus group interviews, researchers found that the music therapy sessions had a positive impact on the paraeducators' daily interactions with their students as well as their ability to connect with them. Paraeducators reported that music therapy group sessions helped to uncover skills and preferences of their students. The sessions also demonstrated the students' abilities to self-regulate and calm disruptive behaviors and elicit positive responses with the help of a structured session, allowing them to know what was coming next. The study also revealed that paraeducators noticed "students would extrapolate learning from music therapy sessions to other environments" (p. 147). Being able to generalize information or coping techniques used in music therapy sessions to other environments are important when considering the effectiveness of music therapy as a treatment. Therefore, allowing paraeducators and other professionals to see students make generalizations firsthand will be helpful in continuing to demonstrate the effectiveness and legitimacy of the field of music therapy.

Misperceptions of the roles of any member of a team will naturally cause problems in the collaborative process (Register, 2002). Therefore, the understanding of the roles and responsibilities of all members of a multidisciplinary team of therapists is crucial to the success of the team in reaching individual and group goals. In research regarding role ambiguity and conflict, there is a negative relationship between role ambiguity and job performance (Tubre & Collins, 2000). Darsie (2009) explored the topic of role ambiguity by surveying interdisciplinary team members in a pediatric oncology/hematology outpatient clinic to explore their perceptions of the role music therapy plays on their interdisciplinary team. Darsie explains "Role ambiguity

often occurs when the expected behaviors of a role are unclear, leading to role conflict, which occurs when the individual performing the job task has a different perception of the expected role than other team members" (p. 48). Pretest surveys were administered directly before a video in-service of a music therapy session was presented, and then participants completed a posttest survey. Results indicated that there was a significant difference between pretest and posttest responses as well as significant differences among responses of different professions, demonstrating the presence of role ambiguity and conflict among the interdisciplinary team. A prominent example of this was the role of providing distraction during a procedure, which many professionals viewed as a role of a music therapist. While this is something that a music therapist is able to do in a hospital setting, it is also considered a primary role of a child life specialist. Darsie points out that this "overlapping of roles could possibly create feelings of role conflict, justifying the need for identifying measures so that future education and collaboration can be put in place" (p. 53). In Darsie's study, the areas where the most significant changes occurred between pretest and posttest survey responses were "assessment, goal setting and procedural support" (p. 53), indicating that a video in-service was an effective way to educate professionals about the roles and responsibilities a music therapist is able to have as part of an interdisciplinary team.

While the roles of physical therapists, occupational therapists and speech-language pathologists are specifically defined in the realm of pediatric therapy, continued research is needed in order to better define the role of a music therapist on a treatment team that includes these disciplines.

CHAPTER THREE

METHODOLOGY

Participants ($N = 57$) for this study were licensed physical therapists ($n = 19$), occupational therapists ($n = 20$) and speech-language pathologists ($n = 18$) that serve clients aged 0-21 in outpatient facilities in the Southeastern region of the United States. All participants were found through an internet search of outpatient facilities that employ all three disciplines of therapy (OT, PT and SLP) in states in the Southeastern region. Participants were contacted through their e-mail addresses listed on their facility's website, or they were contacted by their office manager, who forwarded the survey to the therapists whose e-mail addresses were not listed on their company's website. Licensed physical therapists, occupational therapists and speech-language pathologists who work in outpatient facilities serving clients aged 0-21 were eligible for participation. There were no other stipulations for participation.

Dependent Measure

The dependent measure of this study was a survey created by the researcher via Qualtrics®, a free survey engine available to the researcher at her university. The first section of the survey included five demographic questions that asked the participants their gender, occupation, years of experience, whether they serve populations aged 0-21 and whether they have heard of music therapy. Following the demographic section, the survey was programmed to direct participants to specific questions depending on whether they had heard of music therapy. If yes, participants were asked the following questions (1) Is there currently a music therapist on staff at your facility?; (2) Do you ever discuss treatment goals and plans with the music therapist(s) on staff when working with mutual clients?; (3) Do you ever co-treat with the music therapist(s) on staff when working with mutual clients?; (4) If not, please briefly explain

why you have not co-treated with a music therapist; (5) With what type of clients do you co-treat with a music therapist?; (6) Have you ever referred a client for music therapy?; (7) Why have you referred a client for music therapy?; and (8) Do you believe that music therapy is a legitimate and effective form of therapy? If respondents indicated they had heard of music therapy but did not currently have a music therapist on staff at their facility, they were then asked if they had ever worked with a music therapist at a previous job. If yes, participants were brought to the questions listed in the previous paragraph, but worded in the past tense (e.g. Have you ever discussed treatment goals and plans with the music therapist(s) on staff when working with mutual clients?). For questions one, two, three, six and eight, the survey provided yes/no check boxes and participants were asked to check one. Question five listed choices of populations (early childhood, physical disabilities, developmental disabilities, autism spectrum disorder or other pervasive developmental disorder, terminal illness, mental health, rehabilitation, hearing impaired, visually impaired, other), and participants were asked to check all that apply. For question four, the survey provided space for the participants to write free response answers, and finally, for question seven, participants were asked to check all that apply or provide a free response if "other" was selected.

If respondents indicated they had never heard of music therapy, they were given a general definition which read: Music therapy is a research-based health profession in which a board certified music therapist (MT-BC) uses music-based interventions to reach individualized therapeutic goals with clients of all ages and abilities. Participants were then brought to a list of goals and objectives and asked to check all options they felt could be covered by music therapists in treatment plans. The goals and objectives listed on the survey were as follows: Increase range of motion, increase physical endurance, increase gait skills (cadence, rhythm, stride), increase

cognitive skills, increase sensory integration, increase fine motor coordination, increase self-care skills, increase gross motor coordination, increase receptive language skills, increase expressive language skills, increase sequencing skills, increase fluency of speech, increase oral motor skills, increase decision-making skills, decrease unwanted behaviors, increase attention span, increase pre-academic and academic skills, increase musical ability, increase knowledge of music theory, increase ability to read music, increase pleasantness of voice, increase independence in completion of activities of daily living, increase self-expression, increase social skills, increase memory-recall skills, increase coping skills, increase breath support, increase verbal communication, increase nonverbal communication and increase musical repertoire. Goals listed were from domains of motor, communication, cognitive, music and socio-emotional functioning. A similar question was also used to evaluate perceptions of assessment and consultation tasks that a music therapist is responsible for. Tasks listed were as follows: Writing out measurable goals and objectives to facilitate each client's development, making written developmental assessments of each individual, consulting with all therapists on a treatment team, consulting with parents or legal guardians, consulting with teachers or counselors, assessing musical skills and assessing knowledge of music theory. At the end of the survey, all respondents were asked if they believed co-treating with a music therapist would benefit any of their current clients, and were provided a yes/no checkbox.

Procedure

Approval to conduct this research was granted by the researcher's Institutional Review Board (see Appendix E) prior to the start of the study. Upon approval, participants were found through an internet search of pediatric therapy clinics in the southeastern region. Phone numbers of each facility along with e-mail addresses of therapists (if listed) and administrators were

gathered, and each facility was contacted individually by phone or e-mail. If therapists' e-mail addresses were not listed on the facility's website, a phone call was made to the office manager asking that individual if they would be willing to forward the online survey to their therapy team.

Upon compliance, individual introductory e-mails were sent to all therapists whose e-mail addresses were listed on their facility's website as well as the office managers who agreed to forward the online survey to the therapy team at their facility. Office managers and administrators who agreed to forward the e-mail were asked to also send the forwarded e-mail to the researcher in order to ensure that they were received by the therapy teams.

The introductory email letter briefly explained the study (see Appendix A) and requested the therapist's permission to take part in the survey. This email also included a link to the Qualtrics® survey. The first page of the survey was the letter of consent form, which stated participation is voluntary, the participant may opt out at any time, the responses are anonymous, and they may contact the researcher if they have any further questions regarding the research (see Appendix B). Participants who gave their consent at the bottom of the first page were directed to the first question of the survey, while those who did not give consent were exited out via a thank you page. The duration of the survey lasted approximately 3-5 minutes. See Appendix C for a copy of the survey.

Two weeks after the initial e-mail was sent, a follow-up e-mail (see Appendix D) was sent to all individuals as well as office managers who had not yet responded. The survey remained open for one month after secondary e-mails were sent.

CHAPTER FOUR

RESULTS

The purpose of this study was to gather information regarding the perceptions of music therapy and the status of this therapy in collaboration and co-treatment with physical therapists, occupational therapists and speech-language pathologists in pediatric settings. This study examined how other professionals view the role of a music therapist on a collaborative team treating pediatric clients, aged 0-21. Specifically, the study investigated the following questions:

1. Do physical therapists, occupational therapists and speech-language pathologists view music therapy as an effective and beneficial form of treatment for pediatric clients?
2. Do physical therapists, occupational therapists and speech-language pathologists in the Southeastern region collaborate and/or co-treat with music therapists?
3. With what populations do therapists work with when co-treating with a music therapist?
4. Which discipline of therapy co-treats with a music therapist most frequently?
5. Which therapeutic goals do the three disciplines of therapy believe a music therapist is able to address in their treatment of pediatric clients?
6. What assessment or consultation tasks do the three disciplines of therapy believe a music therapist should be responsible for?
7. How frequently, and under what circumstances, do physical, occupational and speech therapists refer their own clients for music therapy services?
8. Do physical, occupational and speech therapists believe that co-treating with a music therapist would benefit any of their clients?

Data Analysis

Pediatric therapists ($N = 57$) in the Southeastern region, which included physical therapists ($n = 19$), occupational therapists ($n = 20$) and speech-language pathologists ($n = 18$), completed the survey. Because a large majority of online surveys were sent to therapists from a second party (i.e., office managers or therapy administrators), the researcher was unable to determine how many surveys were sent, deeming it impossible to calculate a response rate. All participants indicated they were female and worked with clients aged 0-21. Of these respondents, 18% had worked in their field 0-3 years, 21% had worked 4-6 years, 18% had worked 7-9 years and 44% had worked for 10 or more years. Additionally, 100% of respondents indicated they had previously heard of music therapy (see Table 1).

Table 1.

Percentage of Number of Years Worked in Field

Years	All (N=57)	PT (n=19)	OT (n=20)	SLP (n=18)
0-3	18	11	25	17
4-6	21	16	30	17
7-9	18	5	10	39
10+	44	68	35	28

Note. PT = physical therapists; OT = occupational therapists; SLP = speech-language pathologists

Research Question 1

Participants were asked if they believed that music therapy is a legitimate and effective form of therapy using yes or no check boxes. Overall, 95% of respondents (n = 54) indicated they viewed music therapy as a legitimate and effective form of therapy. Data was also analyzed by participants who (1) had a music therapist currently on staff, (2) did not have a music therapist currently on staff but had worked with a music therapist previously, and (3) did not have a music therapist currently on staff and had never worked with a music therapist previously. For those respondents who indicated they currently had a music therapist on staff at their facility (n = 17), 100% agreed that music therapy was legitimate and effective. For those respondents who indicated they did not currently have a music therapist on staff at their facility, but had worked with one in a previous job (n = 10), as well as those who did not have a music therapist currently on staff and had never worked with a music therapist previously (n = 30), 93% agreed that music therapy was legitimate and effective. Overall, 100% of physical therapists, 86% of occupational therapists and 94% of speech-language pathologists agreed that music therapy was legitimate and effective (see Table 2).

Table 2

Percentage of Respondents who Believe Music Therapy (MT) is Effective and Legitimate

	All		PT		OT		SLP	
	Σ	%	Σ	%	Σ	%	Σ	%
MT on staff (n=17)	17	100	5	29	4	24	8	47
No MT on staff (n=40)	37	93	14	38	14	38	9	24

Note. PT = physical therapists; OT = occupational therapists; SLP = speech-language pathologists

Research Question 2

Respondents were given a yes/no check box to indicate whether they have collaborated with a music therapist. Data was analyzed by respondents who (1) currently had a music therapist on staff at their facility (n = 17) and (2) did not currently have a music therapist on staff, but had worked with one previously (n = 10). For those respondents who currently work with a music therapist, 88% indicated that they collaborate with a music therapist (n = 15). For those respondents who have worked with a music therapist in a previous job, 70% (n = 7) indicated they have collaborated with the music therapist by discussing treatment goals and plans. Respondents were also given a yes/no check box to indicate whether they have co-treated with a music therapist. Data was once again analyzed by participants who (1) currently had a music therapist on staff at their facility and (2) did not currently have a music therapist on staff, but had worked with one previously. For those respondents who currently work with a music therapist, 59% (n = 10) indicated that they have co-treated with the music therapist on staff. Of those respondents who have worked with a music therapist in a previous job, 50% (n = 5) indicated they have co-treated with a music therapist. Table 3 presents the data regarding collaboration and co-treatment responses from each therapeutic discipline.

Additionally, 44% of respondents (n = 12) indicated they have not co-treated with a music therapist. The survey provided a free response space asking these participants to give explanations of why they have not co-treated with a music therapist. These free response statements (n = 11) were categorized into the following: billing issues, scheduling issues, the perception that music therapists only do group sessions, misperceptions of music therapy, the opinion that co-treating is inappropriate for their current clients and a lack of opportunity to co-treat with a music therapist (see Table 4).

Table 3

Percentage of Respondents who Currently Collaborate or Co-treat with a Music Therapist or Have in a Previous Job

	All		PT		OT		SLP	
	Σ	%	Σ	%	Σ	%	Σ	%
MT on Staff								
Collaborate	15	88	4	27	4	27	7	47
Co-treat	10	59	3	30	4	40	3	30
Previous Job								
Collaborate	7	70	2	29	3	43	2	29
Co-treat	5	50	2	40	1	20	2	40

Table 4

Sums and Percentages of Reasons for not Co-treating with a Music Therapist

Reasons	All (n = 11)	
	Σ	%
Billing	3	27
Scheduling	3	27
Group vs. Individual Sessions	2	18
Misperceptions of MT	1	9
Co-treating not Appropriate	1	9
Lack of Opportunity	1	9

Research Question 3

Respondents who currently have a music therapist on staff at their facility (n = 10) were asked to select the populations with which they co-treat with a music therapist. Respondents were asked to choose all populations with which they co-treat; therefore, totals are higher than 100%. Of these respondents, 100% (n = 10) indicated they co-treat with children with developmental disabilities, 90% (n = 9) indicated they co-treat with the early childhood population, 80% (n = 8) indicated they co-treat with children with autism spectrum disorder or other pervasive developmental disorders, 50% (n = 5) indicated they co-treat with children with physical disabilities, 50% (n = 5) indicated they co-treat with children who are visually impaired and 10% (n = 1) indicated they co-treat with children with terminal illnesses, hearing impairments and rehabilitation patients.

Research Question 4

Of all respondents (N = 57), 26% (n = 15) currently co-treat or have co-treated with a music therapist in a previous job. Data was analyzed by: (1) respondents who currently have a music therapist on staff and (2) respondents who have worked with a music therapist in a previous job. Of those respondents who currently have a music therapist on staff (n = 17), 59% (n = 10) indicated they co-treat with the music therapist: 30% (n = 3) physical therapists, 40% (n = 4) occupational therapists and 30% (n = 3) speech-language pathologists. Of those respondents who have worked with a music therapist in a previous job (n = 10), 50% (n = 5) indicated they have co-treated with a music therapist: 40% (n = 2) physical therapists, 20% (n = 1) occupational therapists and 40% (n = 2) speech-language pathologists. Of all respondents combined who have co-treated with a music therapist (n = 15), 33% were physical therapists,

33% were occupational therapists and 33% were speech-language pathologists, making the number of individual respondents who have co-treated with a music therapist equal.

Research Question 5

All respondents ($N = 57$) were given a list of thirty therapeutic goals and were asked to choose those they felt a music therapist could cover in their treatment. Goals in the domains of physical, cognitive, sensory, communication, behavior, music and socio-emotional functioning were listed. Data was analyzed using sums and percentages. The goals chosen most frequently by respondents were as follows: increasing attention span ($n = 48$), increasing sensory integration ($n = 46$), increasing receptive language skills ($n = 46$), increasing cognitive skills ($n = 44$) and increasing expressive language skills ($n = 44$). The goals chosen least frequently by respondents were as follows: Increasing self-care skills ($n = 12$), increasing independence in activities of daily living ($n = 14$), increasing ability to read music ($n = 15$), increasing knowledge of music theory ($n = 18$) and increasing decision-making skills ($n = 19$). All goals in order from most frequently chosen to least frequently chosen are listed in Table 5, with breakdowns of each therapeutic discipline.

Table 5

Perceptions of Goals that Music Therapists Address in Treatment Plans (%)

Goal	Total		PT		OT		SLP	
	Σ	%	Σ	%	Σ	%	Σ	%
Attention span	48	84	17	35	16	33	15	31
Sensory integration	46	81	16	35	18	39	12	26

Table 5 - continued

Goal	Total		PT		OT		SLP	
	Σ	%	Σ	%	Σ	%	Σ	%
Receptive Language skills	46	81	15	33	17	37	14	30
Cognitive skills	44	77	15	34	16	36	13	30
Expressive language skills	44	77	14	32	16	36	14	32
Self-expression	43	75	14	33	17	40	12	28
Nonverbal communication	43	75	13	30	17	40	13	30
Social skills	41	72	12	29	16	39	13	32
Verbal communication	41	72	13	32	15	37	13	32
Decrease unwanted behaviors	39	68	16	41	12	31	11	28
Fluency of speech	38	67	10	26	15	39	13	34
Sequencing skills	37	65	11	30	14	38	12	32
Breath support	35	61	12	34	12	34	11	31
Memory-recall skills	34	60	11	32	14	41	9	26
Musical ability	34	60	9	26	12	35	13	38
Gross motor coordination	33	58	14	42	12	36	7	21
Gait skills	32	56	14	44	9	28	9	28
Fine motor coordination	31	54	12	39	12	39	7	22

Table 5 - continued

Goal	Total		PT		OT		SLP	
	Σ	%	Σ	%	Σ	%	Σ	%
Coping skills	29	51	11	38	11	38	7	24
Academic skills	29	51	9	31	9	31	11	38
Oral motor skills	25	44	9	36	11	44	5	20
Range of motion	25	44	9	36	10	40	6	24
Musical repertoire	24	42	6	25	11	46	7	29
Physical endurance	23	40	10	43	9	39	4	17
Pleasantness of voice	20	35	7	35	11	55	2	10
Decision-making skills	19	33	7	37	8	42	4	21
Music theory	18	32	5	28	7	39	6	33
Ability to read music	15	26	5	33	6	40	4	27
Independence in ADL	14	25	6	43	5	36	3	21
Self-care skills	12	21	6	50	3	25	3	25

Research Question 6

Participants ($N = 57$) were asked to select all assessment or consultation tasks that they felt a music therapist addressed throughout their treatment from a non-exhaustive list of seven tasks. Of those respondents who answered the question ($n = 56$), 93% chose "consult with parent or legal guardian" as a task a music therapist is responsible for, which was the task chosen most frequently ($n = 52$). 25% of respondents ($n = 14$) believed a role of a music therapist was to assess a client's knowledge of music theory. This task was chosen the least frequent by respondents. Music theory is not something that is typically assessed in music therapy treatment, but it was included as an option on the survey in order to assess perceptions of music therapy and the assessment and consultation responsibilities of a music therapist.

Table 6

Assessment and Consultation Tasks a Music Therapist is Responsible For

Task	All		PT		OT		SLP	
	Σ	%	Σ	%	Σ	%	Σ	%
Consult with parent or legal guardian	52	93	18	35	18	35	16	31
Consult with therapists on treatment team	51	91	18	35	17	33	16	31
Consult with teachers or counselors	50	89	18	36	16	32	16	32
Write out measurable goals and objectives	46	82	15	33	18	39	13	28

Table 6 – continued

Task	All		PT		OT		SLP	
	Σ	%	Σ	%	Σ	%	Σ	%
Write out assessments for each individual	40	71	15	38	13	32	12	30
Assess musical skills	26	46	9	35	9	35	8	31
Assess knowledge of music theory	14	25	7	50	3	21	4	29

Note: Because participants were asked to "choose all that apply, total percentages are > 100

Research Question 7

Participants were asked to choose a yes/no check box to indicate whether they have ever referred a client for music therapy ($N = 17$). Data was analyzed by (1) respondents who currently have a music therapist on staff ($n = 17$) and (2) respondents who have worked with a music therapist in a previous job ($n = 10$). Of those respondents who currently work with a music therapist, 53% indicated they have referred a client for music therapy ($n = 9$). Respondents who have referred clients for music therapy were asked to choose all reasons for referring a client for music therapy. One hundred percent of these respondents indicated they referred a client because they seemed to be motivated by music ($n = 9$), 89% of respondents indicated the client or parent/caregiver expressed a client's interest in music ($n = 8$) and 44% indicated that they referred a client for music therapy because they did not qualify for their services ($n = 4$). Of those respondents who have worked with a music therapist in a previous job ($n = 10$), 70% indicated they have referred a client for music therapy ($n = 7$). Of those respondents, 100% indicated they referred a client because they seemed motivated by music ($n =$

7), 57% indicated the client's parent or caregiver expressed a client's interest in music (n = 4) and 14% chose "other" but did not provide a free response (n = 1).

Research Question 8

Respondents (N = 57) were asked to select from a yes/no check box to indicate whether they believed co-treating with a music therapist would benefit any of their current clients. Of those respondents who answered the question (n = 56), 91% agreed that co-treating would benefit clients on their caseload (n = 51). Of those respondents, 35% (n = 18) were physical therapists, 33% (n = 17) were occupational therapists and 31% (n = 16) were speech-language pathologists.

CHAPTER FIVE

DISCUSSION

The purpose of this research study was to explore perceptions of music therapy among other therapeutic disciplines, specifically physical therapists, occupational therapists and speech-language pathologists. This study also examined the status of collaboration and co-treatment among therapeutic disciplines with music therapy. Due to a low response rate, no generalizations can be made from results of this particular study; however, it may act as a pilot for further research on this topic, as there is a paucity of literature concerning music therapy perceptions of physical therapists, occupational therapists and speech-language pathologists on a large scale who work with pediatric clients aged 0-21.

While there are a number of ways in which a multidisciplinary team can function in a professional setting, it is evident that teamwork and collaboration can enhance therapeutic outcomes, especially when working with mutual clients. In order for a collaborative relationship to work, mutual respect of each discipline is necessary (Register, 2002). Based on the results of this study, there seems to be an overall respect and general understanding of music therapy, as only about 5% of total respondents (n = 3) believed that music therapy is not a legitimate and effective form of therapy. These respondents indicated they did not currently have a music therapist on staff at their facility and had never worked with one in a previous job, supporting Ropp et al.'s (2006) and Choi's (1997) conclusion that personal experiences have a significant effect on perceptions.

While only a small pool of respondents indicated having a music therapist currently on staff, it was reassuring to see that 88% of them discuss treatment goals and plans with the music therapist, illustrating the music therapist on staff is viewed as a viable and beneficial part of the

treatment team. It was also reassuring to see that the majority of respondents with a music therapist on staff have co-treated with the therapist. Of all respondents, 91% believed that co-treating with a music therapist would benefit their current clients, illustrating the need for facilities to find solutions for issues that are preventing therapists from being able to co-treat. Of course, proper assessments to ensure that co-treatment is clinically appropriate and necessary should also be conducted, as this model is not always the best approach for an individual. Billing, scheduling, misperceptions and lack of opportunity are all reasonable issues, but also ones that can likely be solved over time. While there does not seem to be a billing code for co-treatment, one possible solution is for each therapist to bill for half of the session, ultimately splitting the session. For example, in a 30-minute session, a physical therapist may bill for one unit (15 minutes) and a music therapist may bill for the other unit.

Respondents were asked to select goals and tasks they felt a music therapist was responsible for in their treatment. Concerning goals, respondents chose those in the domains of music and self-care least frequently. Music goals listed such as "increase knowledge of music theory", "increase musical repertoire", "increase pleasantness of voice" and "increase musical ability" were given as options in order to assess whether misperceptions existed concerning the role of a music therapist. While learning a musical instrument or completing a musical task can be used as therapeutic interventions (i.e., to increase attention span or task completion), teaching music is not a primary aim of a music therapist. Furthermore, increasing knowledge of music theory is not a typical objective when working with an individual with a disability, unless these skills could be generalized into other academic areas. Therefore, seeing a low amount of responses for these goals was reassuring to the researcher, demonstrating the belief that music therapists address non-music goals more frequently than music goals.

It was also encouraging to see that most respondents chose goals and objectives that would also be assessed and addressed in their sessions. For example, of the three therapeutic disciplines surveyed (PT, OT, SLP), physical therapists chose "increasing gait skills", "increasing physical endurance" and "increasing gross motor coordination" most frequently. Additionally, higher frequencies of speech-language pathologists selected communication goals such as "increasing expressive language skills" and "increasing fluency of speech" as ones they felt a music therapist addressed in their treatment. Low responses in the categories of self-care and independence in activities of daily living could be due to the perception that music therapists do not address goals specific to teaching life skills. While this is usually considered to be under the umbrella of occupational therapy, opportunities for collaboration and co-treatment to work on certain life skills should be considered, especially for a child who demonstrates positive responses to music interventions. The fact that the highest amount of therapists chose "increasing attention span" as a goal achieved by a music therapist demonstrates a wonderful way music therapy could be used in collaboration with another therapy. For example, a child completing a strenuous or painful physical therapy exercise may cooperate better with a music therapist in the room using preferred interventions to motivate and distract them from their discomfort. Additionally, music interventions to work on speech-language pathology or occupational therapy goals could be used in order to better hold a child's attention, therefore enhancing the therapeutic experience.

Regarding assessment and consultation tasks of a music therapist, it was reassuring to see that 91% of overall respondents believed it was a music therapist's responsibility to consult with other therapists on the treatment team. Eighty two percent of therapists believed that music therapists write out measurable goals and objectives to facilitate each client's development. This

demonstrates the need for music therapists working in facilities with other therapeutic disciplines to educate them of their responsibilities in order to avoid confusion or misperceptions. Only 71% of therapists believed that music therapists make written developmental assessments of clients, again demonstrating the need for education.

In any online survey, gathering participants is a challenge. It is especially difficult when participants needed are professionals working with large caseloads of clients in therapy facilities. Therapists included in this survey were licensed physical, occupational and speech therapists that worked in outpatient clinics providing all three disciplines of therapy to clients aged 0-21 in the Southeastern region of the United States. Due to the specificity, searching for respondents was difficult, especially given the task of contacting each facility individually, as most email addresses were not listed on the facilities websites. It was also a challenge to verbally convince office managers over the phone to forward along a survey to their therapy team, as both the office managers and the therapists at their facilities were extremely busy. The researcher also received feedback from potential respondents that the online survey link did not work. In order to solve this issue, future participants were asked to copy and paste the link onto a different browser. While this seemed to solve the issue, it is likely that this caused the researcher to lose a large amount of potential participation. Due to the constant growth of the field of music therapy, it is important to continue research regarding perceptions, especially among other disciplines of therapy whom a music therapist will likely work with at some point in their career. In future research, finding a more efficient way to gather participants should be considered. While the discipline's national associations were unable to sell or provide e-mail addresses of their members, some did provide home addresses. Therefore, it might be beneficial to send surveys

via mail in future research in order to gather a larger amount of responses from this particular population.

The purpose of the current study was to gather general perceptions of music therapy as viewed by licensed physical therapists, occupational therapists and speech-language pathologists. Overall, there are positive perceptions of music therapy, especially when therapists have worked with a music therapist in a current or previous job. In future research, more specific questions regarding collaboration should be considered, such as how often they collaborate and in what context (individually, during team meetings, etc.). Additionally, it would be interesting to learn which types of goals are addressed during co-treatment among music therapists and other disciplines, as well as whether or not it improved overall functioning of their clients. Due to the small number of participants, this may act as a pilot study for further research into perceptions of music therapy. If this study were conducted on a larger scale and yielded similar results, it may act as further proof that music therapy is beneficial in pediatric therapy facilities for children with disabilities, which may open more jobs for music therapists as well as increase the number of music therapists working to receive insurance reimbursement in the facilities they currently work in.

APPENDIX A

INTRODUCTORY EMAIL

Dear Therapist,

My name is Alyssa Monas and I am currently pursuing a Master's Degree in Music Therapy from Florida State University. I am writing to you today to request your participation in a survey study I am conducting for my thesis.

The purpose of my study is to examine perceptions of music therapy as well as the status of collaboration and co-treatment among music therapists and other therapeutic disciplines. You have been chosen as a participant in my survey because you are a licensed occupational therapist, physical therapist or speech-language pathologist, and I was able to access your contact information through the information provided on your facility's public website.

For your convenience, I have made the survey available electronically through the Florida State University Qualtrics survey engine, which will allow you to answer anonymously. The survey should take approximately 5 minutes of your time to complete. A consent form will be located on the first page of the survey. Please follow the link provided below to access it:

https://fsu.qualtrics.com/SE/?SID=SV_3fmQBgwE5hzXLbT

If you have any further questions, please feel free to e-mail or call me. You may also contact my faculty advisor, Kimberly VanWeelden, at Kvanweelden@fsu.edu.

I would sincerely appreciate your participation in this survey. Thank you for your time!

Sincerely,
Alyssa Monas, MT-BC
NICU Music Therapist

APPENDIX B

LETTER OF CONSENT

You are invited to participate in a research study examining perceptions of music therapy as well as the status of collaboration and co-treatment among music therapists and other therapeutic disciplines. You were selected as a possible participant because you are a licensed occupational therapist, physical therapist or speech-language pathologist, and your contact information was found on your facility's website, making it free to the public.

This study is being conducted by Alyssa Monas, a Graduate Music Therapy student at Florida State University.

The purpose of this study is to examine perceptions of music therapy as well as the status of collaboration and co-treatment among music therapists and other therapeutic disciplines on a multidisciplinary treatment team.

I am requesting your participation in this brief survey, which should take approximately 5-7 minutes of your time. The survey will involve

1. Completing a demographic section, which will ask you to indicate your gender, occupation and years of experience in your field.
2. Answering questions regarding your perceptions of music therapy as well as identifying any personal experiences you have in collaborating or co-treating with a music therapist. If you have not worked with a music therapist previously, your participation is still encouraged.

Your participation in this study is voluntary. If you choose not to participate or withdraw from the study at any time, there will be no penalty. To withdraw at any time after beginning the survey, simply close your web browser. Your name or other identifying information will never be used in any written or oral presentation pertaining to this study. All data collected will only be used to the extent allowed by law and for the purpose of the study as it is described above.

There are no known risks or benefits to you for participating in this research study. If you have any questions concerning this research study, you may e-mail me. You may also contact my faculty advisor, Dr. Kimberly VanWeelden by phone at (850) 644-4042 or e-mail at Kvanweelden@fsu.edu

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the Vice President for the Office of Research at (850) 644-8633

APPENDIX C

SURVEY

Music Therapy Perceptions and the Status of Collaboration and Co-treatment Among Other Disciplines of Therapy in Pediatric Outpatient Settings

You are invited to participate in a research study examining perceptions of music therapy as well as the status of collaboration and co-treatment among music therapists and other therapeutic disciplines. You were selected as a possible participant because you are a licensed occupational therapist, physical therapist or speech-language pathologist, and your contact information was found on your facility's website, making it free to the public.

This study is being conducted by Alyssa Monas, a Graduate Music Therapy student at Florida State University.

The purpose of this study is to examine perceptions of music therapy as well as the status of collaboration and co-treatment among music therapists and other therapeutic disciplines on a multidisciplinary treatment team.

I am requesting your participation in this brief survey, which should take approximately 5-7 minutes of your time. The survey will involve

1. Completing a demographic section, which will ask you to indicate your gender, occupation and years of experience in your field.
2. Answering questions regarding your perceptions of music therapy as well as identifying any personal experiences you have in collaborating or co-treating with a music therapist. If you have not worked with a music therapist previously, your participation is still encouraged.

Your participation in this study is voluntary. If you choose not to participate or withdraw from the study at any time, there will be no penalty. To withdraw at any time after beginning the survey, simply close your web browser. Your name or other identifying information will never be used in any written or oral presentation pertaining to this study. All data collected will only be used to the extent allowed by law and for the purpose of the study as it is described above.

There are no known risks or benefits to you for participating in this research study. If you have any questions concerning this research study, you may e-mail me at awm08c@my.fsu.edu. You may also contact my faculty advisor, Dr. Kimberly VanWeelden by phone at (850) 644-4042 or e-mail at Kvanweelden@fsu.edu

If you have any questions about your rights as a subject/participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human

Subjects Committee, Institutional Review Board, through the Vice President for the Office of Research at (850) 644-8633

If you are willing to complete this survey, please click “yes” below. By clicking “yes”, you will be providing your consent for participation and will be brought to the beginning of the online survey.
Yes, please take me to the survey
No, I would not like to participate in this study

Are you a male or female?

Female
Male

Occupation

Physical Therapist
Occupational Therapist
Speech-Language Pathologist
Other

How many years of experience do you have in your field?

0-3
4-6
7-9
10+

Do you work with clients between the ages of 0 and 21?

Yes
No

Have you heard of music therapy?

Yes
No

Is there currently a music therapist on staff at your facility?

Yes
No

Do you ever discuss treatment goals and plans with the music therapist(s) on staff when working with mutual clients?

Yes
No

Do you ever co-treat with the music therapist(s) on staff when working with mutual clients?

Yes
No

Please briefly explain why you have not co-treated with a music therapist

With what type of clients do you co-treat with a music therapist? (Check all that apply)

Early Childhood
Physical disabilities
Developmental disabilities
Autism Spectrum Disorder or other Pervasive Developmental Disorders
Terminal Illness
Mental Health
Rehabilitation
Hearing impaired
Visually impaired
Other

Have you ever referred a client for music therapy?

Yes
No

Why have you referred a client for music therapy?

Client seems motivated by music
Client or client's parent/caregiver expressed client's interest in music
Client does not qualify for your services
Other

Do you believe that music therapy is a legitimate and effective form of therapy?

Yes
No

Have you ever had a music therapist on staff in a previous job?

Yes
No

Have you discussed treatment goals and plans with the music therapist(s) on staff when working with mutual clients?

Yes
No

Have you ever co-treated with a music therapist?

Yes
No

Please briefly explain why you have not co-treated with a music therapist

Have you ever referred a client for music therapy?

Yes
No

Why have you referred clients for music therapy?

Client seems motivated by music
Client's parent or caregiver expressed client's interest in music
Client does not qualify for your services
Other

Do you believe that music therapy is a legitimate and effective form of therapy?

Yes
No

Music therapy is a research-based health profession in which a board certified music therapist (MT-BC) uses music-based interventions to reach individualized therapeutic goals with clients of all ages and abilities

Please select which general goals or tasks you feel a music therapist covers in their treatment of pediatric clients (Check all that apply)

Increase range of motion
Increase physical endurance
Increase gait skills (cadence, rhythm, stride)
Increase cognitive skills
Increase sensory integration
Increase fine motor coordination
Increase self-care skills
Increase gross coordination
Increase receptive language skills
Increase expressive language skills
Increase sequencing skills
Increase fluency of speech
Increase oral motor skills
Increase decision-making skills
Decrease unwanted behaviors
Increase attention span
Increase pre-academic and academic skills
Increase musical ability

Increase knowledge of music theory
Increase ability to read music
Increase pleasantness of voice
Increase independence in completion of activities of daily living
Increase self-expression
Increase social skills
Increase memory-recall skills
Increase coping skills
Increase breath support
Increase verbal communication
Increase nonverbal communication
Increase musical repertoire

Check the following assessment or consultation tasks that you believe a music therapist completes in the treatment process (Check all that apply)

Writing out measurable goals and objectives to facilitate each client's development
Make written developmental assessments of each individual
Consult with all therapists on a treatment team
Consult with parent or legal guardian
Consult with teachers or counselors
Assess musical skills
Assess knowledge of music theory

Do you believe that co-treating with a music therapist would benefit any of your current clients?

Yes
No

APPENDIX D

REMINDER EMAIL

Dear Therapist,

My name is Alyssa Monas and I am currently pursuing a Master's Degree in Music Therapy from Florida State University. I am writing to you today to remind you to complete a brief study I am conducting for my thesis if you have not already done so.

The purpose of my study is to examine perceptions of music therapy as well as the status of collaboration and co-treatment among music therapists and other therapeutic disciplines. You have been chosen as a participant in my survey because you are a licensed occupational therapist, physical therapist or speech-language pathologist, and I was able to access your contact information through the information provided on your facility's public website.

For your convenience, I have made the survey available electronically through the Florida State University Qualtrics survey engine, which will allow you to answer anonymously. The survey should take approximately 5 minutes of your time to complete. A consent form will be located on the first page of the survey. Please follow the link provided below to access it:

https://fsu.qualtrics.com/SE/?SID=SV_3fmQBgwE5hzXLbT

If this link does not send you directly to the survey, please copy and paste it onto a different browser. This should bring you to the survey successfully (I apologize for any inconvenience this may cause).

If you have any further questions, please feel free to e-mail or call me. You may also contact my faculty advisor, Kimberly VanWeelden, at Kvanweelden@fsu.edu.

I would sincerely appreciate your participation in this survey. Thank you for your time!

Sincerely,
Alyssa Monas, MT-BC
NICU Music Therapist

APPENDIX E

FLORIDA STATE UNIVERSITY IRB APPROVAL

The Florida State University
Office of the Vice President For Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 4/5/2013

To: Alyssa Monas

Dept.: MUSIC SCHOOL

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
: Music Therapy Perceptions and the Status of Collaboration and Co-treatment Among Other Disciplines of Therapy in Pediatric Outpatient Settings

The application that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and one member of the Human Subjects Committee. Your project is determined to be Expedited per per 45 CFR § 46.110(7) and has been approved by an expedited review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 4/4/2014 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol

change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the Chair of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is FWA00000168/IRB number IRB00000446.

Cc: Kimberly VanWeelden, Advisor

HSC No. 2013.10206

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BIOGRAPHICAL SKETCH

ALYSSA MONAS

Education

August 2006 to May 2008	Partial fulfillment of Bachelor of Arts in Music, Florida Atlantic University, Boca Raton, Florida
August 2008 to December 2011	Bachelor of Music in Music Therapy, Florida State University, Tallahassee, Florida

Professional Experience

July 2012 to Present	Music Therapist, Progressive Pediatric Developmental Center, Tallahassee, Florida
March 2012 to Present	Music Therapist, Healing Hearts Music Therapy, Tallahassee, Florida
June 2011 to December 2011	Music Therapy Intern, United Cerebral Palsy of Greater Birmingham, Birmingham, Alabama

Certification and Training

2012	Board Certification in Music Therapy (MT-BC) Certification Number: 10304
2012	Neonatal Intensive Care Unit Music Therapist Certification (NICU Music Therapist)