

INTERDISCIPLINARY COLLABORATION BETWEEN MUSIC THERAPY AND  
THERAPEUTIC RIDING: FEASIBILITY AND DESIGN

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by

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## **DEDICATION**

I dedicate this thesis to my family who has always stood behind me in my efforts in completing this study. To my sister, who has always shared my love for all of God's creatures and my vision in how animals can serve humans through their presence. To my grandfather, who has endlessly supported my efforts in pursuing an education that fuels my dreams. To my mother and father who have helped me every step along the way as I continue to move forth in my passion as an equestrian and music therapist. My family has always made my ideas and efforts feel worthwhile.

## ABSTRACT

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In order to determine the design and feasibility of collaboration between music therapy and therapeutic riding, the researcher/ music therapist collaborated with three therapeutic riding instructors, eight volunteers, six riders, and six of their caregivers over a six-week period. This involved the planning and implementation of collaborative sessions that were led by a music therapist and therapeutic riding instructor with assistance from volunteers and caregivers with instruction and treatment that was geared towards riders with a variety of special needs. Data was gathered through voice recordings of interviews as well as written feedback through email correspondences and questionnaires that were completed by participants. Throughout the collaborative process the functions of music that were most commonly used included task analysis, transitions, physical cuing, memory aid/mnemonic device, social interactions, and relaxation. After clearly defining the roles of each team member, an environment of collaboration and communication resulted in experimentation of new and different approaches. After considering the results, the collaborative efforts were determined to be feasible for the short term timeline that was chosen for the methodology of this study. The collaborative efforts were determined to be feasible based on the successful discoveries that were made regarding functional approaches to communication and collaboration between team members, which resulted in common functions of music within therapeutic riding session. Although, future research is needed to determine methods of how to secure long term funding that is needed to hire a music therapist at a therapeutic riding facility as well

as to explore long term effects that music therapy can have on progress towards a rider's goals/objectives in order to support the longevity of these collaborative efforts.

**KEY WORDS:** Collaboration, Interdisciplinary collaboration, Music therapy, Therapeutic riding, Equine assisted activities and therapies, Feasibility

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I want to acknowledge the therapeutic riding instructors, volunteers, riders, caregivers, and horses who shared their time and knowledge with me throughout the collaborative process. I want to also acknowledge the many equestrians who have invested their time and patience in furthering my knowledge of horsemanship and riding. To Mrs. Karen Miller, who started me off on my journey as a music therapist and oversaw my development through my time at Sam Houston State University, and who was always there to lend an ear. To Sister Ann Frances Thompson who was the first person to open my eyes to the possibilities of adding music therapy in the riding arena while remaining my steadfast friend and mentor in supporting my pursuits to further research in this area. To Dr. Carolyn Moore, who was on board with my research ideas upon our first meeting, and who shared her expertise and patience that guided me every step of the way with making this thesis a reality.

## PREFACE

As a music therapist who grew up witnessing the power that an animal can have on the development and healing of a human, the thought of combining music therapy and therapeutic riding was a trail worth blazing. Based on the many things that I learned throughout the course of this study, the presence of a horse, human, and song will always remain of importance in my life. With this in mind, these lyrics were born.

Feel the beat, hear that sound  
Of a horse's feet hitting the ground  
Watch the wind blowing through their mane  
It reminds me of something I always knew within

You better start slowing down  
Cause this life will keep on moving even if you're not around  
These are the subtle things that I've been given  
That bless this little life that I've been living

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## CHAPTER I

### Introduction

The steady beat of footfalls is heard as the horse is led up to the mounting block. The rider hears the sung instruction of how to grasp the reins, step into the stirrup, and swing their leg over through melodic cues. As they approach the arena, what once were average footfalls, have now transformed into a stimulating, rhythmic accompaniment through the support of a therapist and instructor and from a creature that has been known to have carried humans throughout history. In the modern day, the purpose and presence of equine and music that serve their riders has the potential to become a form of therapy unlike any other through thoughtful collaboration that has yet to be explored.

The combination of horses and music within history is present in military, ceremonial, and sporting traditions. Music around horses was often used for a specific function or to enhance the entertainment factor of a certain event. An example of the functional use of music within the military is evident in Gleason's article that describes the mounted bands of the U.S. cavalry during the civil war. Gleason includes details of how brass players and percussionists performed on horseback for the purpose of signaling battlefield maneuvers, deceiving the enemy by performing in different areas, and boosting moral among the men by playing popular/patriotic music (2006). The use of music on horseback in military practices transferred to ceremonial traditions such as the use of the drum horse within the British household cavalry regiment. The drum horse is bred as a draft horse that demonstrates the strength and calm temperament to safely carry the precious cargo of two 68lb. kettle drums (The Household Cavalry, n.d.) and a rider.

Another use of instruments on horseback is present within the sport of hunting where horn calls were important in communicating over long distances among a hunting party as the player held the horn in one hand while guiding the horse with the other (Kentucky Horse Park, 2003). One more equestrian sport that can be accompanied by music is dressage, which is a tradition that is rooted within the Spanish Riding School in Vienna as demonstrated by the Lipizzaner stallions. The art of *horse ballet* (Berghaus, 1994) or freestyle dressage, demonstrates choreographed maneuvers that highlight the many gaits of a horse as well as the communication skills between the partnership of horse and rider. Musical accompaniment within freestyle dressage can embody the tempo, style, and character of the overall performance between horse and rider.

These examples provide evidence that both music and horses have been catered for one another throughout history for both functional and entertainment purposes within military, ceremonial, and sporting events. More recently, both music and horses have also been applied as a form of treatment to promote human health needs. While research into both music therapy and therapeutic riding exists, no formal research of how this combination when applied as a form of therapy has yet to be explored. A clear understanding of each discipline pertaining to therapeutic purposes must first be examined. The possibility of addressing health needs of humans through both therapeutic riding and music therapy has yet to be explored.

### **Music therapy**

When looking at each discipline individually, there are many differences, yet some similarities. Music therapy "... is a reflexive process wherein the therapist helps the client to optimize the client's health, using various facets of music experiences and the

relationships formed...” (Bruscia, 2014). Music therapists may design a variety of musical experiences involving re-creating, improvising, composition, and/or listening to address clients’ goals in various domains, such as social, communication, physical, cognitive, and emotional health. The previously stated musical experiences must be facilitated by a board certified music therapist who has completed an American Music Therapy Association (AMTA) approved academic degree program and a six-month internship. Music therapists have provided services within a variety of settings including hospitals, schools, assisted living facilities, and private practice. Music therapy is an evidence-based field that has been established since 1950 and serves a variety of populations and settings.

### **Therapeutic riding**

Therapeutic riding refers to instruction on horsemanship and riding for participants involving activities within the equine environment that are led by a therapeutic riding instructor who is certified by the Professional Association of Therapeutic Horsemanship International (PATH Intl.). Individuals with special needs are often participants within therapeutic riding which involves both mounted and ground activities such as grooming, stable management, shows, and riding in which a therapeutic riding instructor along with assistance from horses and volunteers who assist in facilitating work towards horsemanship and riding goals (PATH, 2015). The movement of the horse, choice of tack, arena set up, and horsemanship/riding instruction are factors that a therapeutic riding instructor manipulates to provide appropriate supports during equine-assisted activities. Goals primarily relate to horsemanship and riding while

secondary goals pertain to health-related domains as previously listed within music therapy.

### **Need for the study**

Various professional music therapy organizations emphasize collaboration as a key component of clinical music therapy practice. According to the professional competencies designed by AMTA, entry-level music therapists are expected to be able to engage in interpersonal collaboration (2013). Specifically, AMTA Professional Competencies 8.1-8.4 indicate that music therapists be aware of various disciplines' practices, articulate the role of music therapy in the client's treatment, and collaborate with colleagues to design and implement interdisciplinary treatment (2013). Moreover, the Certification Board for Music Therapists (CBMT, 2014) emphasized that consulting and coordinating treatment with a client's other therapists and team members from various disciplines is within a music therapist's scope of practice.

Despite AMTA's and CBMT's emphasis on interdisciplinary collaboration as both an entry-level professional competency and within the profession's scope of practice, there is a paucity of research and resources available that specify focus on collaborative practices in music therapy. The literature that is available focuses primarily on collaboration with paraeducators (Abbott & Sanders, 2013) and speech-language pathologists (Geist, McArther, Rodgers-Smith, & Proter, 2008). However, as far as can be determined, no formal research or resources exists that specifically focuses on interdisciplinary collaboration between music therapy and therapeutic riding.

Information regarding music therapy collaboration with well-established disciplines such as speech-language pathology may help inform interdisciplinary

collaboration between music therapy and therapeutic riding. However, such information may not fully transfer to the unique music therapy/therapeutic riding environment, particularly in terms of the roles of various team members involved in the therapeutic process (i.e., staff, volunteers, equine). Thus, specific research regarding music therapy/therapeutic riding could be helpful in establishing a collaborative model that is functional for both disciplines.

### **Purpose of Study**

The purpose of this study was to examine the design and feasibility of a collaborative model between music therapy and therapeutic riding.

### **Delimitations**

Since the collaborative process between music therapy and therapeutic riding has yet to be studied, the choice of focusing on one therapeutic riding facility was ideal for this pilot study. In addition, the researcher has previous experience with implementing music therapy within therapeutic riding through a seven-month internship and has other horsemanship experiences which involved assessing and modifying equine behavior in relation to their responses to music stimuli. This serves a basis of knowledge of where to start with designing a prototype collaborative model in this setting. Although, consultation and direct work alongside PATH Intl. certified therapeutic riding instructors/volunteers when working with horses was prioritized to ensure the safety of all participants during the study. Individuals with special needs were the primary population that both disciplines have experience working with and adapting equipment, ensuring appropriate treatment within the collaborative model. The documentation of the collaborative process took place in the form of voice recordings from interviews and

written feedback gathered by the music therapist/researcher. Documents containing confidential information were secured and protected behind two locks and were only accessible to the researcher/music therapist.

## CHAPTER II

### Literature Review

In this chapter, literature related to interdisciplinary collaboration will be presented. Current research regarding the topic of interdisciplinary collaboration will be explored in regards to music therapy with other professionals, music therapy and therapeutic riding, feasibility, and design.

#### **Interdisciplinary Collaboration**

According to Narrow et. al. (2013), interdisciplinary collaboration includes “share(d) expertise, knowledge, and skills” (p. 1) towards a common goal between multiple individuals. When breaking down the definition of each word, the term interdisciplinary identifies the fact that knowledge is coming from at least two different sources, while the term collaboration means that knowledge is being used to work towards a common goal. Themes of how disciplines are able to work towards a common goal were identified in a study by Keys, Silverman, and Evans (2017), where themes within an interdisciplinary collaborative project included feedback from both professionals, a clear understanding of each professional’s role within the collaborative process, and the need for a communication system that benefits all members of the collaborative team.

These identified themes also translate into another study by Narrow et. al. (2013) which went a step further by systematically reviewing research regarding interdisciplinary teamwork in healthcare and generating a list of common characteristics defining good interdisciplinary team work. The ten principles include the following: positive leadership and management attributes; communication strategies and structures;

personal rewards, training and development; appropriate resources and procedures; appropriate skill mix; supportive team climate; individual characteristics that support interdisciplinary team work; clarity of vision; quality and outcomes of care; and respecting and understanding roles.

Although, according to Narrow et. al. (2013), “there is not a systematic framework around which these activities, or characteristics, of interdisciplinary working can be structured.” (p. 1), the ten principles of interdisciplinary collaboration may be a useful reference tool for conceptualizing and reflecting on the experience of collaboration between music therapy and therapeutic riding taking place in this study.

### **Music Therapy and Collaboration**

As previously described, interdisciplinary collaboration is considered an integral part of music therapy practice (AMTA, 2013; CBMT, 2014). Despite this emphasis, to date, limited research and resources exist regarding this important topic. In one study, Register (2002) surveyed board certified music therapists (MT-BCs) to gather information about their collaborative and consultation practices. Within the study, the author characterizes and differentiates collaborative and consultation as two separate entities. Register defines collaboration as “the process of working jointly with others in an intellectual endeavor to bring about change...” (p. 305) while consultation “allows for the dissemination of information to an individual or group in order to educate and advise on a given topic or methodology.” (p. 309).

Results indicated that 87.5% of the survey respondents stated that they collaborate with team members who most frequently include client’s family/caregivers, medical personnel, and related therapies such as physical therapists. As compared with

collaboration, only 44% of respondents stated that they provide consultative services which were mainly for the purpose of educating professionals and family/caregivers through workshops and one-on-one meetings. These results provide evidence that efforts toward collaboration among music therapists is prevalent within the field among the majority of practicing MT-BCs, yet the field does not appear to have many resources describing these collaborative processes.

One example of a case study by Geist et. al. (2008) shows how a music therapist engages in interdisciplinary collaboration with a speech-language pathologist in a co-treatment model for a child with a severe communication impairment. The authors documented the model development process, including separate assessments from each professional as well as collaborative meetings to determine the design, implementation, and evaluation methods for treatment towards shared goals. The therapists noted the client's positive outcomes in response to collaborative interventions that created opportunities to practice social/communication skills through repetition within a short-term treatment plan. The author reiterated the idea that the need for research concerning music therapy and collaboration is prevalent and that further research could provide options of collaborative models to build upon.

When considering the expectations set from AMTA and CBMT (AMTA, 2013; CBMT, 2014) for music therapists to be able to practice interdisciplinary collaboration in addition to the reality that many music therapists already collaborate with other treatment team members, the necessity for available resources that address the feasibility and design of how to collaborate is present. By looking at collaboration with a unique facility that music therapists may not be as familiar with such as within a therapeutic riding

facility, the new environment and different types of professionals may create a fresh perspective among both professionals leading to a clean slate in which to explore the interdisciplinary collaborative process further.

### **Collaborative Efforts between Music Therapy and Therapeutic Riding**

While published research that supports the collaborative efforts of music therapy and therapeutic riding is limited, the researcher has gathered substantial informal and anecdotal information regarding interest in gaining further tools and resources on the topic, expressed interest in collaborating with a music therapist, and enthusiasm towards potential benefits to therapeutic riding programs as a result of collaboration. One such form of information that was gathered includes the results of an informal survey that was distributed by the researcher which revealed that 98% of the 156 PATH Intl. professionals who completed the survey stated that they have an interest in using music within equine-assisted activities. In conjunction, 85% expressed an interest in collaborating with a music therapist on how music can be used within equine-assisted activities (Rossi, 2016).

Through personal experiences gained by the researcher, further practice and development of interventions were created throughout a music therapy internship that implemented music therapy within therapeutic riding sessions for children with special needs. The internship experience was conducted under the supervision of Sr. Ann Frances Thompson who is a board certified music therapist, PATH Intl. certified therapeutic riding instructor, and an equine specialist in mental health and learning and is one of the few music therapists who currently implements her services within equine-assisted activities (Rossi, 2016 & Thompson, Sr. A. F., 2013).

After presenting on the topic of implementing music therapy within equine-assisted therapies and activities at the Region 8 PATH Intl. conference in August 2017, the interest in collaboration was expressed by PATH Intl. professionals who attended. Yet, they expressed that there was a lack of resources available concerning this topic. Further research could provide the much-needed information to enhance the treatment for clients who may benefit from both music therapy and therapeutic riding. I acknowledge that both fields are unique and potentially misunderstood by the public and other disciplines, but this collaborative model could serve as a way of combining the most beneficial aspects of each discipline to provide a more efficient and effective form of therapy.

Thoughts from both fields are important when developing interdisciplinary practices. One such study includes the ideas within an unpublished study, which was created by a recreational therapist and registered instructor by the North American Riding for the Handicapped Association (NARHA, preceding association of PATH Intl.) named Teresa Wilhelm. Throughout her years of providing equine-assisted activities, Wilhelm provided lists of benefits, session plan ideas, and considerations through her experiences of using music within equine-assisted activities (n.d.). Furthermore, Walter's magazine articles emphasize the use of music within equine-assisted activities through relaxation, song choices, and musical games (2007).

On the other hand, the point of view from the music therapist's side is equally as important. One example of a music therapist's ideas on this combination led to the development of interventions included the adaptation of music-assisted relaxation in the equine environment and music that was purposefully paired with stretching activities to

prepare riders for flexibility needed when riding. These interventions were stated within an unpublished dissertation that also recognized the limitations that should be set on the use of music around such as limiting the volume level of the music to remain below the instructor voice for safety reasons, using preferred music, and designing music for a specific purpose within the session (Hong, 1995). The further development of specific music therapy interventions through musical mnemonics, improvisation, musical games, and intentional song choice when cueing different gaits or drill patterns have been explored within case studies by Thompson who presented on these topics within both regional and national PATH Intl. conferences (Thompson, Sr. A. F., 2010, 2011, & 2013). Overall, these resources are helpful in gaining ideas of how to implement music therapy within therapeutic riding, but the basis for this information is not rooted in formal research. In order to promote credibility while collecting needed information to fill in the holes of this research, a research study that looks at the design of an interdisciplinary collaborative model of how to implement music therapy within therapeutic riding is needed for the potential benefits of the combined therapies to be revealed. In order to gather this information, specific questions need to be answered by participating team members within this interdisciplinary collaborative model. Ultimately, the implementation of an interdisciplinary collaborative model will help in determining the feasibility for this unique type of therapy. This research study will focus on collecting information from a music therapist, therapeutic riding instructors, caregivers of riders, volunteer, and equine behavioral responses at a therapeutic riding facility.

## **Research Questions**

Research questions will be divided into two categories including questions pertaining to the design of a collaborative model as well as the feasibility of this type of service. An aim of this study was to examine the collaborative process between music therapy and therapeutic riding in an effort to determine the feasibility and design for future related interdisciplinary work. The primary research questions were as follows:

1. What types of structure and/or approaches to the collaborative process emerged as the various team members began to work together?
2. What are the roles of the various team members within the collaborative model?
3. Which approaches to communication between the various team members were most beneficial?
4. What are the potential functions of music within the therapeutic riding sessions?
5. What are the overall strengths, weaknesses, opportunities, and threats of the collaborative model?

Based on the answers to these questions, the researcher further examined the feasibility of the collaborative model and if further inquiry of the model is warranted.

## **CHAPTER III**

### **Method**

#### **Research Methodology**

By focusing on the feasibility and design of interdisciplinary collaboration between music therapy and therapeutic riding, the question of whether or not collaboration in this setting is going to be worthwhile can be answered in addition to the question of how collaboration in this setting can function. The following articles will look further into how feasibility and design will play a role within this research.

According to the Cambridge dictionary, a feasibility study is defined as “an examination to decide if a suggested method, plan, or piece of work is possible or reasonable.” In this study, the suggested plan was to implement music interventions within the therapeutic riding setting while a music therapist works alongside a therapeutic riding instructor. To determine whether this plan is “possible or reasonable”, the details related to feasibility must be identified.

#### **Setting**

The recruitment for an appropriate therapeutic riding facility began after receiving feedback and communication of interest in possibly contributing to this study from PATH Intl. professionals after a presentation at the region 8 PATH Intl. Conference prior to this study. The chosen facility provides therapeutic riding services to 77 individuals with special needs. This therapeutic riding program has been functioning for 34 years and is a PATH Intl. certified facility. Therefore, they are held to a higher standard within the equine-assisted activity and therapy field which is overseen by the Professional Association of Therapeutic Horsemanship International. Liability precautions were

already set in place for riders, volunteers, and staff who engage with the horses based on liability forms that all riders and/or caregivers signed before engaging in therapeutic riding. This facility included two covered arenas, trail courses, and necessary equipment such as tack and mounting blocks that can be modified as needed for the benefit of the riders. Overall, the facility staff expressed an interest in participating in this study after they heard about the possibility from a PATH Intl. Regional Conference in which the researcher/music therapist presented at and shared resources with the music therapist that were needed to conduct this study.

### **Participants**

After gaining a letter of permission from a therapeutic riding facility to recruit subjects that volunteer, work, or receive services from their program, the researcher/music therapist recruited three therapeutic riding instructors, ten caregivers, and ten riders, and eight volunteers to participate within the collaborative sessions. Although, due to inconsistencies with attendance, eight riders and eight caregivers were included in this study in addition to the other listed participants. The number of participants that were initially recruited was based off of an article by Guest, Bunce, and Johnson, who stated that twelve interviews are needed in order to achieve data saturation. Therefore, a total of 26 separate interviews occurred throughout the study which met the minimum of twelve interviews that were needed.

Direct documentation on rider progress was not taken by the music therapist/researcher, although observations of rider responses influenced the development of the collaborative efforts and choices made when designing and implementing interventions. The choice of which caregivers/riders to recruit depended on multiple

factors including referrals from the therapeutic riding instructors and scheduling of collaborative sessions. The therapeutic riding instructors at this facility had different levels of experience that ranged from 2 years to 20 years within the field which offered a variety of viewpoints concerning the exploration of this collaborative efforts because they were all participants in providing treatment, instruction, and support throughout the partnered music therapy/therapeutic riding session.

In addition to feedback from human participants, it should be noted that the horses involved within the sessions were assessed on their behavioral responses to music stimuli for safety precautions. Therefore, observations of behavioral feedback related to music stimuli from equine as well as other processes involved in the collaborative model were documented and taken into account as the study progressed. The music therapist also presented the music stimuli to the horses as volunteers were warming up the horses before the collaborative sessions began in order to reassess the horses' responses and to anticipate adjustments that may have been needed.

## **Procedures**

Procedures for this study include the following:

1. The music therapist/researcher volunteered and observed sessions at the therapeutic riding facility prior to the study. Familiarity with staff, volunteers, riders/caregivers, and the horses was important for the development of a collaborative model. Observations of the culture, session structures, and roles of all who were present was important when developing a prototype collaborative model.

2. The music therapist/researcher collaborated with staff/volunteers in assessing the behavioral responses from horses within the therapeutic riding program when exposed to different types of music stimuli (live, recorded, instrumental vs. vocal etc.). The music therapist/researcher documented these findings to reference in the future to trouble shoot possibly safety concerning/risks related to including music within the equine environment.
3. The music therapist/researcher provided a presentation during the facility's education enrichment concerning the details of the study and introduced safety considerations concerning the implementation of the collaborative model being developed that implements music therapy within therapeutic riding. Recruitment of therapeutic riding instructors and volunteers took place at this time through the signing of consent forms.
4. The music therapist/researcher provided information on the study, recruitment and gain consent from the caregivers of riders to participate in this study by answering questions related to the collaborative model being developed.
5. The music therapist/researcher gained assent from riders.
6. The music therapist/researcher conducted initial formal interviews with eight caregivers, eight volunteers, and three therapeutic riding instructors on an individual basis. The interviews were based on predetermined and spontaneous questions relating to the collaborative model before, during, and after collaborative sessions took place. Feedback was documented

through a voice recording or written by hand by the music therapist/researcher.

7. The music therapist/researcher collaborated with therapeutic riding instructors in developing a collaborative model, which was later tested out within collaborative sessions. The music therapist/researcher implemented music therapy techniques within three different therapeutic riding classes once a week for six weeks. The music therapist and therapeutic riding instructors practiced a reflexive process by assessing aspects of the collaborative process while making modifications as needed in future sessions.
8. The music therapist/researcher conducted informal interviews with the collaborative team members that were previously stated throughout the six weeks in which collaborative sessions were implemented in addition to the music therapist's personal thoughts and feedback.
9. The music therapist/researcher conducted final interviews with volunteers and caregivers through a written questionnaire that each participant completed individually after the final collaborative session was completed. In addition, the music therapist/researcher conducted a final formal interview with the therapeutic riding instructors through a voice recording of their responses to predetermined and spontaneous questions.

### **Sources of Data**

Sources for data within this study included voice recordings of interviews with participants (therapeutic riding instructors, riders and/or caretakers of riders, volunteers,

and the researcher/music therapist) as well as the personal thoughts of the researcher, written correspondences with participants (emails of session plans/intervention descriptions), and an assessment tool that was used to document the horses' behavior in relation to their responses to music stimuli. The researcher also documented a timeline of events as they occurred throughout the study.

## CHAPTER IV

### Results

#### Introduction Section

Results for this study are categorized by structures and approaches, roles of the collaborative team members, functions of music in therapeutic riding sessions, as well as strengths, weaknesses, opportunities, and threats to the collaborative model.

#### Participant and Site Description

Interdisciplinary collaborative sessions involving music therapy and therapeutic riding took place over a period of six weeks within three different classes that occurred once a week. Each class included 2-4 riders who varied in ages and diagnosis from children with a variety of developmental disabilities in addition to a class with older adults working towards rehabilitation of their functions. Ten riders and ten caregivers were initially recruited, but due to inconsistencies in attendance, eight riders and eight caregivers were included within this study.

The therapeutic riding facility included a small and large covered arena, riding trails, obstacle course materials, various manipulatives, and adaptable riding equipment. The site also allowed access to a herd of six horses that were used throughout this study.

#### Description of Weekly Structure and Approaches

**Weekly structure** Before the first week of collaborative session took place, the music therapist/researcher observed a variety of therapeutic riding classes lead by each therapeutic riding instructor both from the perspective of an observer and as a volunteer within the program as a sidewalker and leader for riders and horses. When planning for an upcoming collaborative session, the music therapist/researcher consulted

with the therapeutic riding instructor in person to discuss ideas. About 1-2 days before the next collaborative session would take place, the music therapist/researcher would then follow up with more specific details related to intervention ideas through an email to the therapeutic riding instructors. The therapeutic riding instructors would then review the email and make comments or suggestions as needed. On the day of the collaborative session, the music therapist/researcher would check in with the therapeutic riding instructor in person before the session began to confirm any last minute ideas or modifications to proposed ideas. In addition, the music therapist/researcher would check in with the volunteers to reassess the horses' responses to the music stimuli and to remind them of safety precautions for certain horses as needed based on the initial assessment of the horses' responses to music stimuli.

Once the collaborative session was underway, the music therapist/researcher and the therapeutic riding instructor experimented with different collaborative approaches. After the collaborative session was completed, the music therapist/researcher would conduct a brief informal interview with the therapeutic riding instructor and volunteers as needed to discuss possible pros and cons related to how the session went in addition to plans for the next week.

**Approaches to collaboration.** Different approaches to collaboration were used throughout the course of the study depending on the preferences of each therapeutic riding instructor. The following approaches emerged overtime.

1. **50/50 Pass Off:** During this approach, the music therapist and therapeutic riding instructor lead every other intervention or activity by alternating between who addresses the group throughout the session. The therapeutic

riding instructor was the primary leader when implementing & advising PATH Intl. standards of safety protocols in any situation.

2. **Lead Then Follow Up:** During this approach, the therapeutic riding instructor introduced a concept or task and the music therapist then presents a music intervention or cue to reinforce that concept or task and vice versa where the music therapist introduces a concept and the therapeutic riding instructor reinforces through their teaching techniques. This approach was effective when stationing a music therapist in a certain area (ex: by a specific obstacle), in which riders could practice demonstrating a specific skill and the music therapist could assist with cuing, performing, or reinforcing a behavior or skill.
3. **1:1 vs. Group Flexibility:** During this approach, the therapeutic riding instructor and music therapist work alongside each other and had flexibility with addressing riders in a group context vs. individually as appropriate. Factors that influenced the need for a group vs. one on one interactions between a music therapist and rider included to following:
  - a. Riders' level of functioning (physically, cognitively etc.)
  - b. Difficulty level of the presented task or concept
  - c. Level of support and guidance needed for the volunteers in relation to the rider.
4. **Downtime to Quality Time:** During this approach, the music therapist/researcher observed moments during the session where the therapeutic riding instructor was addressing a rider individually (ex: putting

on a helmet, mounting/dismounting, adjusting tack). The music therapist then designed interventions to engage the other riders within the group session for that portion of time.

5. **Developing/Use of Consistent Cues:** The members of the collaborative team developed and decided upon the use of consistent cues throughout the collaborative session. Musical elements were manipulated to provide further clarity to a cue. This was applicable to skills that riders regularly needed reminders of (ex: how/when to stop, walk on, turn your horse, posture etc.).
6. **Consultation:** The music therapist could provide consultation services by meeting with the therapeutic riding instructor to discuss ways of independently implementing music within their therapeutic riding sessions through demonstrations, discussions, and presentations. Demonstrations could include a music therapist who presents examples of music interventions that could be used as well as how they can be implemented within a session. Consultation services could also be used as a way to advocate for music therapy when a music therapist initially connects with a therapeutic riding facility. Presentations about music therapy within therapeutic riding were given by the music therapist during an education enrichment event that was hosted by the therapeutic riding facility before collaborative sessions began in this study.

## **Roles of Collaborative Team Members**

Collaborative team members include the music therapist/researcher, therapeutic riding instructor, caregivers of the rider, rider if appropriate, volunteers (sidewalker and leader/handler) as well as the horse.

**Therapeutic riding instructor.** The role of the therapeutic riding instructor includes the assessment of a rider needs concerning equipment needed to ride safely while working towards horsemanship goals/objectives with consideration of goals in other domain areas, matching riders with an appropriate horse based on the horses' gait speed, stride length, body confirmation, height etc. Throughout the session, the therapeutic riding instructor leads collaborative team members through a variety of riding activities while introducing new riding skills, and serves as the initial contact for safety concerns. This may involve modeling/cuing riding skills, praising/correcting behaviors, and corresponding with caregivers, volunteers, and the music therapist.

**Music therapist/researcher.** The role of the music therapist is to assess the rider's behavioral responses to music stimuli and to modify music interventions based on the rider's goals/objectives (based on their functioning within each domain: physical, emotional, communication, social, cognition). In addition to assess the rider's behavior responses, the music therapist/researcher is constantly observing the horse's response to music stimuli and making modifications as needed to ensure the safety of all collaborative team members. Within this study, the music therapist took the initiative with desensitizing the horses to music stimuli and assessing their behavioral responses before implementing music within collaborative sessions. The music therapist/researcher corresponded with the therapeutic riding instructor on identifying riders that would

potentially benefit from music therapy interventions, planning sessions each week, and improving the design of the collaborative model.

**Volunteers: Leader and sidewalker.** There are two types of volunteers that play a different role within the collaborative model including the leader and the sidewalker. The leader is the person who handles the movement/maneuvering of the horse through verbal and physical cues that may include the correction of horse behavior as appropriate and/or notifying the therapeutic riding instructor of concerns related to horse behavior that may threaten the safety of a team member. Their main job is to monitor the behavior of the horse while coordinating the horse efforts with the rider and therapeutic riding instructor's cues. This involves the leader being attentive to the independence level of the rider while modifying their level of support and by providing an appropriate amount of response time depending on the needs of the rider and horse. In addition to modifying the horse's behavior to cater to the activities within the session, the leader facilitates a brief warm and cool down for the horses as needed before and after sessions.

The volunteer who serves as a sidewalker is the person that directly engages with the rider throughout the session by observing their behavior responses, reinforcing cues given by the therapeutic riding instructor or music therapist, and by monitoring the riders' safety both on the ground and on horseback. Their many roles may include engagement with riders during social greetings at the beginning/end of sessions, assistance with the proper use of equipment (helmet, holding reins etc.), support with mounting/dismounting, and maintenance of a rider's posture through physical support as needed when riding. Sidewalkers also have the potential to assist with taking data of the riders' behavioral responses and to provide specific cues that are catered to the rider's needs.

**Caregiver and rider.** The rider and caregiver are essential when collecting information that is needed when assessing a rider such as basic background information and other activities and therapies that the rider may participate in as well as current goals/objectives. They can also provide updates on progress in other therapies or at school as well as on the current mood of the rider when arriving for music therapy/therapeutic riding sessions. The caregivers can also aid in solving safety or behavioral concerns as needed through the communication of techniques that assist with modifying the riders' behavior in other environments that can be transferred to the equine environment. If the caregiver regularly observes the collaborative sessions, they can provide feedback on the progress of the rider within session as well as the possible generalization of behaviors to other environments.

The rider can also be active in determining their goals/objectives through various levels of communication and through their demonstration of behavioral responses throughout sessions. The rider's main role is to participate by responding to cues given by different team members during the collaborative sessions. These responses given by the rider will assist in determining the trajectory of future sessions whether they are positive, negative or neutral responses.

**Horse.** The horse plays an important role in the collaborative team by providing physical support and stimulation when riding, by fostering social support through interactions with an animal, and by serving as the focal component within equine-assisted activities that can challenge a rider in additional domain areas such as emotion and cognition. The physical stimulation that a horse can provide is based on the tempo of the horses' gait, length of their stride, height, temperament, and the choice of equipment used

when riding. The horse can also serve as a motivating factor based on the positive interactions with all team members including the recruitment and dedication of volunteers, therapeutic riding instructors, and music therapists as well as the bonds that can form between riders and horses. When considering safety, the horse ideally serves as a reliable partner in carrying riders, walking with side walkers, responding to cues from riders and leaders, and tolerating various stimuli that may be presented within a session including the music stimuli and instruments that were present within this study.

### **Approaches to Communication**

Forms of communication that were used within this study included correspondences through email, face-to-face conversations, and through written feedback. Varying levels of communication were used depending on the preferences on the different team members. Correspondence through email occurred between the music therapist and the therapeutic riding instructor where the music therapist took feedback from the previous week and presented details on new interventions within a rough draft session plan. The therapeutic riding instructor would then review those details and respond back with comments or suggestions. In addition, the music therapist checked in face to face for 10-15 minutes before and after each collaborative session to review the plan on how to implement new interventions, pros and cons, and the overall flow of the session.

A month before collaborative sessions began, the music therapist gave a presentation on the use of music therapy within therapeutic riding during a volunteer education enrichment event that the therapeutic riding facility hosted. Communication between the music therapist, volunteers, and caregivers included brief informal

interviews as needed five minutes before or after the collaborative sessions.

Communication between the music therapist and volunteers occurred mainly through in the moment instruction as well as written feedback within a questionnaire at the end of the study. Communication between the rider and the music therapist took place during the 45 minute long collaborative sessions each week through the varied functions of music that will be described in detail. Communication from the horses occurred through the observation of equine body language by the music therapist, therapeutic riding instructor, and volunteers. The music therapist checked in with the horses and their corresponding volunteer leader five minutes before each collaborative session to briefly reassess the horses' behavioral responses that day.

### **Functions of Music in Therapeutic Riding Sessions**

Music served a variety of functions within the collaborative music therapy & therapeutic riding sessions such as music used to analyze a task, facilitate transitions and social interactions, initiate physical cuing, serve as a memory aid or mnemonic device, and to promote relaxation.

**Task analysis.** Music was used to facilitate the timing and order of steps within a specific task. In addition, the structure of the song assisted in cuing the appropriate duration in which to complete the presented task. When providing the musical cue, the rhythm, lyrics, and melody served as reminders for riders. In addition, the order of steps when set to music helped to coordinate cues that volunteers may have needed to reinforce for the rider. Examples of tasks within therapeutic riding that were set to music included how to put on a helmet, how to turn a horse in a circle and how to stop a horse.

**Transitions.** During times in the session where the therapeutic riding instructor was addressing a rider individually, other riders were waiting their turn. During that transition time, the music therapist engaged the riders through music to practice social skills as well as verbalizations that were commonly used throughout the session. Examples of interventions used during this time included hello/goodbye songs that included interactions with the horse and volunteers as well as a waiting song that served as a distraction and/or an incompatible behavior for riders to practice patience when waiting their turn to mount their horse. Music also served as a tool to increase a rider's awareness of an upcoming obstacle as well as other sounds, sights, and smells that were present in the equine environment during obstacles courses and trail rides.

**Physical cuing.** During warm ups that involved stretching or the demonstration of basic riding skills (walk on & stop), pattern sensory enhancement was used to provide spatial, force, timing cues for specific movements. The songs cued the timing of each movement through repetitions within songs that could be anticipated or through entrainment where a physical movement matches a presented tempo. Through the manipulation of musical elements, the music therapist was able to provide clear cues that corresponded with recommended exercises and corresponding repetitions from the therapeutic riding instructor.

**Memory aid/mnemonic device.** Through the development and implementation of a consistent melodic or rhythmic cue that was attached to instructions needed to complete a task, certain riders seemed to have an increased chance at remembering the information after repeating the presented memory aid. Repetition and consistent use of the musical memory aids was important to improving the rider's accuracy in remembering

the presented information. The manipulation of musical elements could be used as a tool for generalization by gradually fading the lyrics, and eventually using only the rhythm or melody without the lyrics to cue the behavior which is a cue that a therapeutic riding instructor could then assess when providing only verbal instruction.

**Social interactions.** Not only did music serve as a tool to help in facilitating interacts between riders and volunteers, but it facilitated interactions between the horse and rider. Hello/goodbye songs were directed towards all members of the collaborative team through both verbal and nonverbal interactions such as giving high fives or through petting a horse at the end of a session. Social interactions with horses through music seemed to be a motivating factor such as through singing to a horse by identifying the horse's name, color, or body parts. The social interactions with the horse had the potential to transfer to interactions with humans. Examples from interviews on this topic include when a volunteer stated that the "music encouraged (the rider) to speak to her horse in a louder voice, (which is) something we have been working on for a while." A caregiver stated "Music relaxes (the rider) and encourages her to interact with people. She is more comfortable singing with others than speaking to them sometimes."

**Relaxation.** Music-assisted relaxation served as a tool in reducing anxiety not only among riders, but with volunteers, therapeutic riding instructors, and the horses. When music was used to relax a rider, it had the potential to reduced muscle tension and increase flexibility during stretching exercises that riders demonstrated. Based on observations of collaborative sessions, one caregiver stated "I can see that it (music) calms both the rider and horse.". In addition, music-assisted relaxation had the potential to cause certain horses to move at a slower pace if presented with a slow accompaniment

through entrainment. Some of the collaborative team members perceived that music-assisted relaxation influenced the behavior of some horses in a positive way such as when changing the tempo of a horses' gait to provide more or less stimulation for the rider and with reducing a horse's tendency to toss its head, shift its weight, or step forward when waiting for a rider to mount/dismount.

### **Strengths, Weaknesses, Opportunities, and Threats**

After the researcher/music therapist reviewed the voice recordings and questionnaires, reoccurring perceptions were revealed throughout the collaborative process. These perceptions were then organized into four categories including strengths, weaknesses, opportunities, and threats in regards to the feasibility of the collaborative process.

**Strengths.** Based on comments from participants, the added music was perceived to improve responses from riders, increase motivation, increase awareness of the environment, decrease anxiety, improve memory of tasks, and increase the riders' speaking volume through singing. The addition of music assisted with coordinating cues that volunteers helped to reinforce as needed for riders. Strengths related to this study included the willingness from all members of the collaborative team to participate in the collaborative sessions. This included the fact that all participating horses demonstrated neutral or positive behavioral responses to presented music stimuli within collaborative sessions. Participants also expressed a willingness to work with a music therapist in the future. Another strength to this study is that the music therapist/researcher had a previous background in working with horses both on ground work and on horseback which improved the level understanding of between the horsemanship related goals vs. music

therapy goals. The researcher/music therapist's knowledge of equine body language assisted the therapeutic riding instructor with identifying and reducing potentially unsafe situations that may have been a result of adding music stimuli. The music therapist/researcher also had previous experience in implementing music therapy within therapeutic riding in the past. The fact that the researcher/music therapist coordinated collaboration with three different therapeutic riding instructors, eight volunteers, eight caregivers, and eight riders throughout three different classes allowed for the researcher/music therapist to gain a variety of perspectives and opinions related to the collaborative process. In addition, the recruitment of riders that included both children and adults with varied diagnoses fostered opportunities for the collaborative team to experiment with a variety of ways in which music could function within the collaborative sessions.

**Weaknesses.** Weaknesses that were revealed in this study included the fact that it was at times difficult for all members of the collaborative team to hear music within the equine environment based on varied proximity, acoustics, and environmental sounds. In addition, the way in which planning for collaborative sessions was set up resulted in a lack of in person time to plan collaborative sessions between the music therapist and therapeutic instructor. More in person planning may have been needed to improve the clarity of the music therapists' and therapeutic riding instructor's role in implementing interventions and activities to the highest quality possible. This may have assisted with trouble shooting how a rider may have needed extra help/adaptations on how to hold/use instruments while on horseback while considering safety precautions. The collaborative efforts required more time and consideration on the part of the therapeutic riding

instructors when planning and implementing collaborative sessions, assessing and desensitizing the horses to music stimuli, and when participating in interviews. The fact that this study took place over a span of six weeks limits the researchers' ability to determine the long term feasibility of these collaborative efforts.

**Opportunities.** The opportunity for all collaborative team members to experiment with implementing new ideas involving music within collaborative sessions which in turn increased awareness among all who were involved. The process of collaborating allowed for members of the collaborative team to receive and give feedback to improve the process each week from different points of view which offered a different level of supervision and learning. The symbiotic presence of both the music therapist and therapeutic riding instructor strengthened the ability to monitor and problem solve in order to address present needs at a faster rate. The implementation of music within collaborative session seemed to not only benefit riders as originally intended, but also benefited other members of the collaborative team such as through repetition within songs and through music-assisted relaxation. Overall, some members of the collaborative team perceived that music influenced the behavior of certain horses by the way some horses appeared to match the tempo of their gait. In particular, one horse seemed to calm down by fidgeting less when presented with a relaxing music stimulus vs. without music.

**Threats.** The potential threat throughout this study concerned the safety of riders and volunteers when combined with music stimuli. Although, the threat of a horse responding negatively to any presented stimuli is always present, it should still be acknowledged in the context of this study as a factor within collaborative sessions that should be consistently assessed and monitored. Within the initial collaborative sessions,

all members of the collaborative team needed an adjustment period regarding the addition of music. It was perceived that once team members got used to the addition of music, positive responses then began to emerge. The other potential threat to adding music was its potential to distract other riders if the music therapist happened to be addressing another rider individually. Concerning the longevity of materials used within the equine environment, there may be more wear and tear on instruments and manipulatives which may result in the need for funding to maintain or replace materials as needed over time. A potential threat to this study concerning longevity is the fact that the researcher/music therapist engaged in these collaborative sessions working on a volunteer basis without compensation for travel, planning, or in person time spent during collaborative sessions. The need for payment in return for services would be needed in order to continue the collaborative process long term. This ultimately leads to the potential issue of lack of funding considering the fact that the majority of therapeutic riding facilities are nonprofit organizations that may not have the funds to hire a music therapist.

## CHAPTER V

### Discussion

#### Is This Feasible?

In order to answer the question of whether or not the collaborative efforts made by participants within this study were feasible, the resulting data was reviewed. Additional factors that were considered when determining the feasibility of the collaborative effort between music therapy and therapeutic riding includes the possible need for funding, additional time, further research, the balance of strengths vs weaknesses, and opportunities vs. threats, interest from other therapeutic riding facilities, and from other music therapists. The following discussion contemplates the feasibility of these collaborative efforts based on previously presented results.

Since the music therapist/researcher did not receive payment for the time spent planning and implementing collaborative efforts within this study, the chances of a music therapist providing long term services for a therapeutic riding facility is not feasible without additional funding. Considering the reality that the majority of therapeutic riding facilities are nonprofit organizations, budgeting for the payment for a music therapist to work alongside a therapeutic riding instructor may not be possible without seeking further funding. This might be achieved through pursuing further advocacy efforts within the community and by applying for grants which may be tied to future research efforts that determine the long term value of hiring a music therapist to collaborative with a therapeutic riding facility. Overall, additional funding would be required in order to maintain collaborative efforts between music therapy and therapeutic riding.

When considering the willingness of the therapeutic riding facility in addition to the participants who contributed to the study, their support was essential for initializing collaborative efforts. The participants support with implementing new interventions helped in discovering the common functions of music within the collaborative sessions and their feedback was essential when problem solving while continuing forth with improvements to the collaborative approaches each week. Overall, the rapport that was built between the music therapist/researcher and participants through time spent volunteering as a leader/sidewalker, collaborating throughout session, and discussions during interviews created a positive relationships that resulted in steady improvements regarding collaborative efforts each week.

When considering the collaborative efforts from participants within this study, the therapeutic riding instructors were the participants that contributed the most additional time spent planning and making modifications to the collaborative sessions. If a therapeutic riding instructor is committed to working with the music therapist, which was what occurred within this study based on their consistent correspondence, support from volunteers, caregivers, and riders is more likely to occur. On the other hand, the music therapist must be just as committed to this partnership through regular communication with the collaborative team members. After discovering the different approaches to communication, the ones that were used most frequently between the music therapist and therapeutic riding instructor included 5-10 minute conversations before and after the collaborative sessions. The conversations were mainly spent discussing new ideas or problem solving issues that may have taken place during a session. In addition, the music therapist would regularly send an email with a more detailed description of intervention

ideas two days before it would be implemented and the therapeutic riding instructor would reply with related comments. Although, it is noted that one therapeutic riding instructor requested that more time be spent in person each week to walk through the proposed intervention ideas beforehand while another therapeutic riding instructor preferred to try out interventions in the moment during collaborative sessions. The music therapist's willingness to offer a variety of approaches to communication as well as designating the appropriate amount of time depending on the preference of the therapeutic riding instructor is an important component that supports the feasibility of these collaborative efforts. The same flexibility in communication should be extended to the other members of the collaborative team members as well.

Concerning the potential interest from therapeutic riding facilities in collaborating with a therapeutic riding facility, the researcher/music therapist reflected on when she previously presented at a PATH Intl. regional conference on the topic of music therapy within equine-assisted activities and therapy. The audience at the conference included many PATH Intl. therapeutic riding instructors who seemed receptive to the presented ideas based on feedback and interest in the study which was briefly mentioned. A survey that was sent out to PATH Intl. professionals regarding music and equine-assisted activities showed that approximately 85% of the 154 respondents stated that they were interested in working with a music therapist on how music therapy could be used within equine-assisted activities (Rossi, 2016). On the other hand, music therapists both at a regional and national level have expressed an interest in collaborating with equine-assisted activity and therapy professionals based on their attendance and feedback at conference presentations in which the researcher presented on how to implement music

therapy within equine-assisted activities and therapy. Participants within this study were asked as to whether or not these collaborative efforts were worth further inquiry and the majority of participants responded by stating “yes” and that they were willing to collaborate with a music therapist in the future.

When comparing the strengths, weaknesses, opportunities, and threats, the positive aspects seem to outweigh the negative ones. The strength of how rider responses were perceived to have improved with the addition of music outweighs the threat of the addition of music becoming a distraction for riders when it was initially introduced as well as the ongoing threat of the rider’s safety in relation to a horse’s behavioral response towards presented music stimuli. Also, the opportunity for members of the collaborative team to give feedback, to think outside the box, and to experiment with new interventions outweighs the weakness that more time may need to be spent on planning and preparation of interventions and overall collaborative sessions between the therapeutic riding instructor and music therapist.

### **Limitations**

Limitations within this study include the fact that the researcher/music therapist had been volunteering at the therapeutic riding facility for five months before beginning the process of gathering data and collaborating. Since the music therapist/researcher had built rapport with some members of the collaborative team, it may have influenced their responses to the interviews that were conducted by the music therapist/researcher. Another limitation to this study was the fact that it took place over a six week period which is a short amount of time when determining whether or not the collaborative efforts would be effective long term.

## **Implications**

The results imply that it is possible and feasible for a music therapist to collaborate with a therapeutic riding instructor, volunteers, caregivers, riders, and horses for a short amount of time. Based on comments from participants, riders were perceived to have benefited from the implementation of music therapy at some point during the study. Rapport between collaborative team members created a positive environment in which to design and implement new interventions and to problem solve as needed. However, further research is needed in order to determine the feasibility of these collaborative efforts over a long period of time. Topics that would need to be explored further include funding sources for hiring a music therapist at a therapeutic riding facility, cost of services, effect of music therapy and therapeutic riding on rider goals/objectives, and ways in which to establish a music therapy program in conjunction with equine-assisted activities.

## **Summary**

In order to determine the design and feasibility of collaboration between music therapy and therapeutic riding, the researcher/ music therapist collaborated with three therapeutic riding instructors, eight volunteers, six riders, and six of their caregivers over a six week period. This involved the planning and implementation of collaborative sessions that were led by a music therapist and therapeutic riding instructor with assistance from volunteers and caregivers with instruction and treatment that was geared towards riders with a variety of special needs. Overall, the collaborative model used within this study appears to be feasible based on the openness to communication between participants concerning their different roles, the perceived improvement in rider's

responses when the different functions of music were applied, and the results regarding strengths, weaknesses, opportunities, and threats. The strengths and opportunities that resulted in the study outweighed the weaknesses and threats. In addition, a variety of collaborative approaches were discovered throughout the collaborative process. While taking these elements into account, the collaborative efforts within this study appeared to be feasible. Further research may be needed to determine the long term feasibility of collaborative efforts between music therapy and therapeutic riding.

## REFERENCES

- Abbott, E. A., & Sanders, L. (2013). Perspectives of paraeducators on collaboration in music therapy sessions. *Canadian Journal of Music Therapy, 19*(1), 47-65.
- Retrieved from  
<http://eds.b.ebscohost.com.ezproxy.shsu.edu/eds/pdfviewer/pdfviewer?vid=3&sid=194a628e-6771-4ca9-bb91-99acc73b4298%40sessionmgr104>
- AMTA Professional Competencies. (2013) In *American Music Therapy Association*.
- Retrieved from <https://www.musictherapy.org/about/competencies/>
- Berghaus, G. (1994). Dance Research [Review of the book *Triumphal shews: tournaments at german-speaking courts in their European context*, by H. Watanabe-O'Kelly]. Retrieved from <http://www.jstor.org/stable/1290718>
- Board Certification Domains (2015). *The Certification Board for Music Therapists*.
- Retrieved from  
[https://www.cbmt.org/upload/CBMT\\_Board\\_Certification\\_Domains\\_2015.pdf](https://www.cbmt.org/upload/CBMT_Board_Certification_Domains_2015.pdf)
- Bowen, D.J., Kreuter, M., Spring, B., Cofta-Woerpel, L., Linnan, L., Weiner, D.,...Fernandez, M. (2009) How we design feasibility studies. *American Journal of Preventative Medicine, 36*(5), 452-457.
- Bruscia, K. E. (2014). *Defining music therapy* (Third ed., pp. 35-43). New Braunfels, TX: Barcelona Publishers.
- Feasibility Study. (n.d.). In *Cambridge Advanced Learner's Dictionary & Thesaurus*.
- Retrieved from <https://dictionary.cambridge.org/us/dictionary/english/feasibility-study>

- Thompson, Sr. A. F. (2015, November). Music Therapy and EAAT: a Partnership in Treatment. Professional Association of Therapeutic Horsemanship International Conference. Symposium conducted at the meeting of PATH Intl., Cleveland, OH.
- Thompson, Sr. A. F. (2013). Music Therapy on Horseback. Retrieved from <http://equestcenter.org/music-therapy-on-horseback/>
- Thompson, Sr. A. F. (2010, March). Music Therapy and Equine Assisted Activities. North American Riding for the Handicapped Association, Inc. Region 4 Conference. Symposium conducted at the meeting of NARHA, Inc. Kalamazoo, MI
- Thompson, Sr. A. F. & Perrault, L. (2011, November). Using Music to Enhance Therapeutic Riding. Professional Association of Therapeutic Horsemanship International Conference. Symposium conducted at the meeting of PATH Intl. Lexington, KY.
- Geist, K., McCarthy, J., Rodgers-Smith, A., & Porter, J. (2008). Integrating music therapy services and speech-language therapy services for children with severe communication impairments: A co-treatment model. *Journal of Instructional Psychology*, 35(4), 311-316. Retrieved from <http://eds.b.ebscohost.com.ezproxy.shsu.edu/eds/pdfviewer/pdfviewer?vid=2&sid=e322efa5-c8e4-469d-a210-04e7c2a5cc28%40sessionmgr102>
- Gleason, B. P. (2006) U.S. mounted bands and cavalry field musicians in the union army during the civil war: background, duties, and training. *Journal of Historical Research in Music Education*, 27(2), 102-119. Retrieved from <http://www.jstor.org/stable/25597924>

- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59-82. doi: 10.1177/1525822X05279903
- Hong, M. (1995). Enhancing therapeutic horseback riding program for the physically handicapped using music (Unpublished master's thesis). Michigan State University, East Lansing, Michigan.
- Kentucky Horse Park. (2003). *All The Queen's Horses*. Prospect, KY: Harmony House Publishers.
- Moran, D. (2014). Husserl's Crisis of the European Sciences and Transcendental Phenomenology: An Introduction. *International Journal Of Philosophical Studies*, 22(5), 3. Retrieved from [https://www.researchgate.net/publication/270902152\\_Husserl%27s\\_Crisis\\_of\\_the\\_European\\_Sciences\\_and\\_Transcendental\\_Phenomenology\\_An\\_Introduction?enrichId=rgreq-ee9079862cab5dc78377d82ce29f8d88-XXX&enrichSource=Y292ZXJQYWdlOzI3MDkwMjE1MjtBUzoxODYyNzk2MjcwNzU1ODZAMTQyMTQyMzkzMjk4NQ%3D%3D&el=1\\_x\\_2&\\_esc=publicationCoverPdf](https://www.researchgate.net/publication/270902152_Husserl%27s_Crisis_of_the_European_Sciences_and_Transcendental_Phenomenology_An_Introduction?enrichId=rgreq-ee9079862cab5dc78377d82ce29f8d88-XXX&enrichSource=Y292ZXJQYWdlOzI3MDkwMjE1MjtBUzoxODYyNzk2MjcwNzU1ODZAMTQyMTQyMzkzMjk4NQ%3D%3D&el=1_x_2&_esc=publicationCoverPdf)
- Professional Association of Therapeutic Horsemanship International, (2015). 2015 PATH Intl. Fact Sheet. Retrieved from <http://www.pathintl.org/images/pdf/about-narha/documents/2015-fact-sheet-web.pdf>
- Register, D. (2002) Collaboration and consultation: A survey of board certified music therapists. *Journal of Music Therapy*, 39(4), 305-321. Retrieved from <http://eds.b.ebscohost.com.ezproxy.shsu.edu/eds/detail/detail?vid=2&sid=0cfd41>

2a-11d8-408a-a9b0-

0c5750f5d413%40sessionmgr102&bdata=JnNpdGU9ZWRzLWxpdmUmc2Nvc

GU9c210ZQ%3d%3d#AN=000179875100004&db=edswss

Repko, A. F. (2012). *Interdisciplinary research: process and theory*. Thousand Oaks, CA: SAGE Publications.

Rossi, S. L., (2016) [Use of music in equine-assisted activities among PATH professionals.] Unpublished raw data.

Smith, D. W. (2013). Phenomenology. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy* (Winter 2013 ed.). Retrieved from <https://plato.stanford.edu/entries/phenomenology/>

The Household Cavalry. (n.d.). In *The household cavalry regiment*. Retrieved from <http://householdcavalry.info/horses.html>

Walters, P. (2007, Summer). Riding to rhythm: Music helps students relax, learn & relate. NARHA's Strides, 20-23.

Wilhelm, T. (n.d.). [Music in the riding therapy session]. Unpublished article.

## APPENDIX

<b>SWOT Data Chart</b>	
<b>Category</b>	<b>Main Themes</b>
<b>Strengths</b>	<ul style="list-style-type: none"> <li>• Willingness and commitment from participants collaborate</li> <li>• All horses demonstrated neutral and/or positive behavioral responses to presented music stimuli within collaborative sessions.</li> <li>• Added music assisted with coordinating cues that volunteers helped to reinforce as needed.</li> <li>• Participants expressed benefits from the collaborative sessions</li> <li>• Added music was perceived to               <ul style="list-style-type: none"> <li>○ Improve responses from riders</li> <li>○ Increase motivation, increase awareness of the environment</li> <li>○ Decrease anxiety</li> <li>○ Improve memory of task</li> <li>○ Increase speaking volume through singing</li> </ul> </li> <li>• All of the therapeutic riding instructors and volunteers involved in the study expressed a willingness to collaborating with a music therapist in the future.</li> </ul>
<b>Weaknesses</b>	<ul style="list-style-type: none"> <li>• Difficult for all members of the collaborative team to hear musical cues based on varied proximity, acoustics, and environmental sounds that are present within equine environments.</li> <li>• Lack of in person time to plan sessions between the music therapist and therapeutic riding instructor. More in person planning may have been needed to improve the clarity of the music therapists' and therapeutic riding instructors' role in implementing interventions and activities to the highest quality possible.</li> <li>• Some riders needed extra help/adaptations to hold and/use instruments while on horseback.</li> </ul>
<b>Opportunities</b>	<ul style="list-style-type: none"> <li>• Allows for therapeutic riding instructors and music therapist to think outside the box and to experiments with different interventions &amp; activities.</li> <li>• Opportunity for both professionals to gain feedback from a different point of view. Promotes continued education and supervision</li> <li>• Opportunity for multiple members of the collaborative team to benefit from music-assisted relaxation.</li> <li>• When problems arise, 2 professionals were able to monitor and problem solve in order to address present needs at a faster rate.</li> <li>• Music had the potential to influence the behavior of some horses in a positive way (“...the horse’s pace matched the beat.”, “the horse seemed to calm down during mount/dismount while the music was playing.”)</li> </ul>

<b>Threats</b>	<ul style="list-style-type: none"><li>• An adjustment period was needed for collaborative team members regarding the addition of music in the initial collaborative sessions.</li><li>• Higher risk for wear and tear on instruments &amp; manipulatives based on the equine environment</li><li>• Added music has the potential to distract riders.</li><li>• Lack of funding considering the fact that the majority of therapeutic riding facilities are nonprofit organizations.</li><li>• Overall safety of riders &amp; volunteers when engaging with horses and music.</li></ul>
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## VITA

**Sarah Lynn Rossi**

### EDUCATION

Master of Music Student in Music Therapy at Sam Houston State University, August 2016-present. Thesis title: "Interdisciplinary collaboration between music therapy and therapeutic riding: feasibility and design."  
Bachelor of Music (May 2016) in Music Therapy, Sam Houston State University, Huntsville, TX.

### EMPLOYMENT

Graduate Teaching Assistant, Music Therapy Program, Sam Houston State University, August 2016- May 2018. Responsibilities include: Supervised undergraduate music therapy practicum students & taught a fundamentals of guitar class while assisting with running the on campus clinic.

Music Therapist, Huntsville Independent School District, August 2016-Present. Responsibilities included: Provided music therapy services for students with special needs.

### PRESENTATIONS

- Rossi, S. L. 2017. Implementation of music therapy within equine-assisted activities and therapy. American Music Therapy Association National Conference, St. Louis, MO, November 2017.
- Rossi, S. L. 2017. Implementation of music therapy within equine-assisted activities and therapy. Professional Association of Therapeutic Horsemanship Region 8 Conference, Ward, AR 2017.
- Rossi, S. L. Implementation of music therapy within equine-assisted activities and therapy. Southwestern American Music Therapy Association Regional Conference, Fort Worth, TX, March 2017.