

UNIVERSITY *of*
INDIANAPOLIS[®]

School of Occupational Therapy

Exploring Benefits of Hippotherapy Through Implementation of a Volunteer Protocol

Kelsy Tracey

May, 2018



A capstone project submitted in partial fulfillment for the requirements of the Doctor of Occupational Therapy degree from the University of Indianapolis, School of Occupational Therapy.

Under the direction of the faculty capstone advisor:

Jennifer Fogo, PhD , OTR

A Capstone Project Entitled

Exploring Benefits of Hippotherapy through Implementation of a Volunteer Protocol

Submitted to the School of Occupational Therapy at University of Indianapolis in partial fulfillment for the requirements of the Doctor of Occupational Therapy degree.

By

Kelsy Tracey, OTS

Exploring Benefits of Hippotherapy Through Implementation of a Volunteer Protocol

Approved by:

Faculty Capstone Advisor

Date

Doctoral Capstone Coordinator

Date

Accepted on this date by the Chair of the School of Occupational Therapy:

Chair, School of Occupational Therapy

Date

Exploring Benefits of Hippotherapy through Implementation of a Volunteer Protocol

Kelsy Tracey

University of Indianapolis

School of Occupational Therapy

Abstract

Section I

Hippotherapy is a unique treatment tool used by occupational, physical, and speech therapists to meet patients' functional goals. Hippotherapy requires several individuals to facilitate a successful and safe session and provides a multitude of benefits to patients with a variety of diagnoses due to its ability to impact multiple body systems simultaneously. The various physical, sensory, and psychological benefits of hippotherapy are explained utilizing evidence based literature to support these benefits.

This paper was written to explain the benefits of hippotherapy, responsibilities of hippotherapy team members, and to justify the importance of ensuring each member of the hippotherapy team is knowledgeable regarding hippotherapy benefits, responsibilities when assisting with a hippotherapy session, and Health Insurance Probability and Accountability Act (HIPAA) guidelines. The researcher implemented a volunteer protocol at a nonprofit hippotherapy clinic to improve volunteers' knowledge and ensure patient safety. The results were assessed using the Goal Attainment Scale following a pre- and post-survey. Succeeding implementation of the volunteer protocol, approximately 40% of post-survey participants showed improved knowledge regarding hippotherapy and 50% demonstrated improved knowledge of HIPAA regulations. This translates into increased efficiency and safety of a hippotherapy session. Therefore, the volunteer protocol can be viewed as a valuable resource implemented at this hippotherapy clinic.

Keywords: occupational therapy, benefits of hippotherapy, hippotherapy and Sensory Integration, Hippotherapy and Model of Human Occupation, HIPAA regulations for volunteers, quality improvement model

Exploring Benefits of Hippotherapy through Implementation of a Volunteer Protocol

A 16-week doctoral capstone experience (DCE) was completed by a Doctor of Occupational Therapy student (OTS) at the Children's TherAplay Foundation, Inc. in Carmel Indiana. Requirements for the DCE included conducting a needs assessment to create and implement a program based off of the priority populations' needs. Below is an introduction to hippotherapy, detailed needs assessment, and explanation of program implementation at Children's TherAplay.

Section II

Occupational therapists often utilize a variety of treatment tools in order to help patients meet functional goals. One unique treatment tool that occupational therapists can utilize is hippotherapy. Hippotherapy can be integrated into “physical, occupational, and speech therapy that utilizes the natural gait and movement of a horse to provide motor, and sensory input” (Koca & Ataseven, 2016, p. 247). The term hippotherapy derived from ancient Greek literally means horse “hippos” (Koca, & Ataseven, 2016, p. 247).

Winston Churchill once stated, “there is something about the outside of a horse that is good for the inside of a man” (Govender, Barlow, & Ballim, 2016, p.31). Churchill proposed this thought many years ago introducing what would become an integral part of modern hippotherapy sessions. The horse was not incorporated into therapy until the 1960s in Germany, Switzerland, and Austria (American Hippotherapy Association, 2015). Hippotherapy was introduced into the United States in the 1970s. Several therapists joined together to create the American Hippotherapy Association (AHA) in 1992, to develop a standardized hippotherapy curriculum for use among therapy disciplines (AHA, 2015). Despite the implementation of the

American Hippotherapy Association nearly 25 years ago, there is still limited evidence based literature regarding hippotherapy services. Additionally, many community members, healthcare workers, and families that could benefit from these services are still unaware of the benefits hippotherapy can provide. Existing resources support benefits that hippotherapy can offer children with a variety of diagnoses including but not limited to: developmental delays, Autism Spectrum Disorder (ASD) diagnosis, Cerebral Palsy, and Down Syndrome. The purpose of this paper is to introduce the various benefits of hippotherapy, explain the importance of the hippotherapy team, and describe the implementation of a volunteer protocol developed to ensure safety and efficacy of hippotherapy services.

What is Hippotherapy?

Hippotherapy involves the “purposeful manipulation” (AHA, 2015, p. 3) of the horse in order to facilitate a response in the patient riding the horse. These reactions affect many different body systems at the same time such as musculoskeletal, circulatory, respiratory, nervous system, and cognitive functions. Hippotherapy has the unique ability to simultaneously impact multiple body systems and functions throughout one treatment session making it beneficial for many patients.

Physical benefits of hippotherapy. Although evidenced based literature is limited regarding hippotherapy services, there is literature discussing the anatomy of the horse and the human and how the two correlate to create a unique therapy experience. The movement of the horse’s pelvis is similar to the movement in a human’s pelvis. Movement in both occurs in three dimensional planes. A human pelvis moves through a sagittal plane producing flexion and extension movements, a frontal plane producing abduction, adduction, and lateral movements,

and lastly a transverse plane producing rotational movements. While a patient is seated on the horse, he or she will be exposed to similar movements required for human gait because the pelvis of the horse is moving in the same three planes (AHA, 2015). The movement pattern of the horse is repetitive and rhythmic and therefore can provide many physical benefits to the patient by translating those motor movements directly through the horse's pelvis to the patient's pelvis (Koca & Ataseven, 2016). The patient is constantly responding to the horse's movements to readjust to midline, maintain center of gravity while on a dynamic surface, and activate various trunk muscles to maintain an upright position (AHA, 2015). Koca and Ataseven (2016) reviewed effectiveness of hippotherapy and concluded that hippotherapy "improves balance and muscle control of the patient" (p. 248). The impact of direct contact from the horse's moving pelvis on the patient's pelvis and spine has "twice as strong" (Koca & Ataseven, 2016, p. 248) effect on the patient than normal human gait. Researchers concluded that hippotherapy can improve mobility and posture of the patient faster and more effectively than traditional therapy approaches (Koca & Ataseven, 2016). These improved motor and balance skills can help enhance each patient's occupational performance in various activities off the horse as well.

Hippotherapy not only has a positive impact on postural control and mobility, but it also plays a role in the overall improvement of fine motor and gross motor skills (Ajzenman, Standeven, & Shurtleff, 2013). These results can be beneficial for individuals with different diagnoses such as Autism Spectrum Disorder (ASD). Children with this diagnosis often have "decreased postural stability" (Ajzenman, Standeven, & Shurtleff, 2013, p. 654). Commonly seen deficits, such as decreased gross and fine motor skills, in children with ASD affect their ability to participate in daily activities. Ajzenman et al., (2013) found that when incorporating hippotherapy sessions into a 12-week treatment plan for children with ASD there was

improvement in overall postural control and motor coordination. Researchers analyzed how these changes affected participation in daily activities, and found a correlation between improved postural control and motor coordination with improved participation in daily activities such as, self-care tasks, leisure activities, and social interaction (Ajzenman et al., 2013).

Zadnikar and Kastrin (2011) researched the benefit of hippotherapy on children with Cerebral palsy (CP) and the benefits of hippotherapy services. Children with CP often present with limited postural control and various motor deficits that ultimately impacts the child's ability to complete daily tasks, that require some degree of postural control. Hippotherapy can improve postural control in many ways. For example, a therapist may ask the patient to sit anteriorly on the horse and reach for different objects above his or her head or reach laterally in different planes. This movement facilitates motor coordination and strength from the dorsal side of the body when the child reaches forward. Occasionally, the therapist will have the child reach inferiorly and laterally to retrieve an object which will facilitate contraction of the muscles on the ventral side of the body. These various activities in addition to initiating core strength to maintain balance while on the horse, help to improve postural control in multiple ways. The therapist may also ask the horse handler to guide the horse in trotting or completing patterns such as a figure eight that will facilitate "righting and equilibrium responses, which enable development of dynamic postural stabilization and control" (Zadnikar & Kastrin, 2011, p.687). These improvements in postural control can facilitate progression towards the patient's increased independence with self-care tasks such as putting a shirt on independently, sitting at a desk at school with no assistive device, or engaging in leisure activities for a longer period of time before fatiguing.

Hippotherapy impacts many client factors throughout one therapy session. There are benefits to the respiratory and circulatory system. The concussive forces created from the horse's movement have been found to initiate more breaths from the patient, requiring increased exhalation/ inhalation that helps relax and normalize the diaphragm. This is very important for patients who have respiratory difficulties because the concussive forces help loosen secretions in the lungs making breathing easier for patients following a hippotherapy session (AHA, 2015). The concussive forces elicited during a hippotherapy session will also improve blood flow throughout the patient's body and can "facilitate a relaxation response to potentially decrease blood pressure" (AHA, 2015, p. 53). The positioning of the patient while seated on the horse encourages an elongation of the trunk, which can aid in improving the respiratory system as well (AHA, 2015). Along with the continual elongation of trunk, the patient may be asked to cross midline and reach for a ring on the left side then pass it to the right side. This may seem like a simple task, but this task encourages the patient to initiate trunk rotation and lateral flexion, while requiring the patient to cross midline and maintain balance on the horse (AHA, 2015). The vast amount of physical benefits hippotherapy has to offer can make it a life changing therapy tool for children with physical disabilities. Along with all of the physical benefits hippotherapy has to offer, there are several sensory benefits that are notable as well.

Sensory benefits of hippotherapy. Sensory processing involves input from the environment that is processed and organized to elicit behaviors. Sensory processing is regulated through "auditory, visual, gustatory, olfactory, tactile, pain, vestibular, proprioceptive, and kinesthetic" systems (AHA, 2015, p. 53). Even though hippotherapy provides sensory stimuli to all sensory systems, the impact on the vestibular and proprioceptive systems will be highlighted in this paper.

Children with developmental delays, ASD, or Sensory Processing Disorder (SPD) struggle to participate in daily tasks due to decreased ability to process stimuli. A child that has a sensory processing disorder often struggles to learn new tasks and perform motor coordination tasks, making it difficult for that child to participate in daily tasks such as dressing, bathing, or brushing teeth (Case- Smith & O'Brien, 2015). The information below details how vestibular and proprioceptive input provided through hippotherapy, stimulates multiple sensory systems which can benefit a child with an ASD or SPD (Granados & Agís, 2011).

Vestibular input is nearly constant during a hippotherapy session because the horse is continually moving or changing directions. The horses change in speed and direction stimulates the patient's vestibular system, which is sensitive to change in movement. These changes in movement and gravitational pull will elicit a stimulus in the inner ear to relay information to the brain of the patient, informing him or her of their position in space (Granados & Agís, 2011). The processing of this vestibular input affects the patient's posture, balance, movement, and coordination (North Shore Pediatrics Therapy, 2017). As the child is exposed to additional sensory input the child will become more successful at organizing this input appropriately and this will translate into "goal- directed actions which is called an adaptive response" (Case- Smith & O'Brien, 2015, p.259). Therefore, increased vestibular stimulation is important for overall sensory regulation because the patient will begin to elicit an adaptive response to changes in vestibular information. As the patient learns to adaptively respond to sensory input, this leads to a more efficient sensory integration system (Case- Smith & O'Brien, 2015). A more efficient sensory integration system can translate into more effective participation in daily activities. For example, the vestibular system and bilateral coordination are closely related. "The vestibular system and our body's ability to register information and integrate it into movements enables

bilateral coordination and body awareness of the upper and lower body” (The OT Toolbox, 2016, p. 1). Bilateral coordination is a vital skill for many daily tasks that often require the concurrent use of both sides of the body. If a child lacks bilateral coordination, his or her daily actions will appear clumsy and disorganized. (The OT Toolbox, 2016). Hippotherapy provides an influx of vestibular stimuli that, when organized in the body appropriately, can promote improvement in the child’s posture, balance, fine and gross motor skills.

Proprioception is another sensory system stimulated during a hippotherapy session. Proprioception is provided through the concussive forces and rhythmic movement the horse is transferring to the patient. The increased proprioceptive input will elicit an increased “sense of self” for the patient (Mathews, 2012). Much like vestibular input, proprioceptive input works to inform the “body of its position in space” (North Shore Pediatrics Therapy, 2017, p. 1). When a child receives increased proprioceptive input and learns to adaptively respond to this input, he or she will gain a better understanding of where and what his or her body is doing. This understanding translates into more organized and efficient participation in daily activities (North Shore Pediatrics Therapy, 2017). Case- Smith & O’Brien (2015) used Jean Ayers Sensory Integration theory to explain the importance of a child’s sensory system being in “harmony” in order for a child to effectively participate in daily activities. Ayers explained sensory integration as “the brain’s ability to organize sensory information received from the body and the environment, and to produce an adaptive response” (Cole & Tufano, 2008, p.229). Ayers stressed the importance of all sensory systems working in harmony in order to successfully organize input and respond to the stimulus properly. Nearly all daily activities a child participates in involves the integration of one or more of the sensory systems listed above. An occupational therapist can utilize hippotherapy as a tool to impact many sensory systems

simultaneously. This influx of sensory input will elicit the patient's adaptive response mechanism which results in an even more efficient sensory system (Case- Smith & O'Brien, 2015).

Psychological benefits of hippo therapy. Not only does hippo therapy offer physical and sensory benefits to patients, its influence extends to the mind. Taylor et al. (2009) examined volitional change in children with ASD who were participating in hippo therapy. Researchers studied a convenient sample of children who participated in hippo therapy weekly utilizing the Pediatric Volitional Questionnaire. After 16 sessions, "all three children showed improvement in their motivation to engage in everyday activities" (Taylor et al., 2009, p. 198). Even though the researchers had a small number of participants, the results revealed that hippo therapy can provide a motivational change for children with ASD.

Taylor et al., (2009) utilized the theory Model of Human Occupation (MOHO) to guide their research study. MOHO was created by Gary Kielhofner (Cole & Tufano, 2008) and had three main components. The first component focuses on volition. Kielhofner defined volition as "the motivation for occupation," (Cole & Tufano, 2008, p.95). The second term is habituation which is "the process by which occupation is organized into patterns or routines" (Cole & Tufano, 2008, p.95). The last component is performance capacity which is comprised of a person's ability to complete skilled occupations (Cole & Tufano, 2008). These three primary components of the MOHO align well with the psychological benefits evident hippo therapy treatment. The horse can be used as a motivational tool for the child. A child fond of the horse will begin to build a relationship with the horse and look forward to hippo therapy sessions. The child can also participate in opportunities to care for the horse, such as grooming or feeding the

horse. These opportunities can also be seen as motivating factors for the child (AHA, 2015). As the child sees himself or herself improving in therapy, this translates to the child gaining confidence in other aspects of life (Taylor et al., 2009). This improved confidence can transform into self-assurance to participate in social groups at school, complete home-work assignments on time, and work towards increasing independence in tasks such as instrumental activities of daily living (IADL).

Occupational therapists utilize hippotherapy in many ways to improve motor control, fine motor coordination, gross motor coordination, overall balance, attention to task, and to help integrate sensory processes (AHA, 2015). Some degree of motor planning, balance, and attention to task are necessary skills in order for a patient to be able to participate in daily activities. Since hippotherapy provides a holistic approach to therapy (AHA, 2015) it can be utilized to help improve a patient's occupational performance in many ways when compared to strictly clinic based occupational therapy.

Hippotherapy Compared to Clinic Based Therapy

According to American Occupational Therapy Association (AOTA) hippotherapy is not classified as an emerging area of practice however, some researchers still classify it as emerging due to lack of public awareness regarding hippotherapy services (Baker, 2015). Hippotherapy when compared strictly to clinic based therapy inevitably has higher risks due to it requiring the use of a large animal (AHA, 2015). However, this unique treatment tool has shown to have outstanding effects on various body systems, allowing patients to meet functional goals quicker than traditional approaches (AHA, 2015). Occupational therapists working in a hippotherapy setting create functional goals that can be achieved on and off the horse. The therapists at

Children's TherAplay utilize a variety of pediatric assessments such as Peabody Developmental Motor Scales Second Edition (PDMS – 2), Sensory Profile II, and Bruininks-Oseretsky Test of Motor Proficiency, Second Edition and (BOT-2) OT Short Form to assess patient's functional goals. These pediatric assessments are also used in standard pediatric clinics. The results of the assessments help justify the patient's need for occupational therapy services, and provide a quantifiable means to document progress (L. Van Antwerp, personal communication, January 24, 2018).

Some hippotherapy clinics utilize hippotherapy assessments to assess patient function specifically related to hippotherapy goals. Thompson, Ketcham, and Hall (2014) studied how hippotherapy impacted patients with developmental delays (DD). Researchers utilized several assessments to look at changes in participants physical and psychological function after participation in 8-12 weeks of hippotherapy. Therapists used the Gainesville Riding through Equine Assistive Therapy (G.R.E.A.T.) Postural Scale assessment to assess postural changes in participants along with a parent questionnaire to assess changes in self-esteem and overall quality of life. The results revealed that approximately half of the participants showed improvement in fine motor coordination, and approximately 62% demonstrated improvements in the gross motor assessment, specifically related to postural control (Thompson, Ketcham, & Hall, 2014). The parent surveys indicated a significant increase in each child's quality of life and overall self-esteem following the hippotherapy treatment. Researchers concluded that equine assisted therapy can be seen as a "effective therapeutic protocol for children with a variety of developmental delays" (Thompson, Ketcham, & Hall, 2014, p. 67).

Assessments such as the G.R.E.A.T Postural Scale, can be beneficial to use in a hippotherapy setting in order to provide further quantitative data supporting the benefits of hippotherapy services. However, these assessment tools, much like most assessment tools, are expensive and difficult to administer (L. Van Antwerp, personal communication, January 24, 2018). Occupational therapists at Children's TherAplay focus on using assessments that are commonly used in clinical pediatric settings to help justify skilled occupational therapy needs to insurance companies and to doctors to ensure continued services for each patient (L. Van Antwerp, personal communication, January 24, 2018). Despite similar assessment tools and goals for therapy, the main difference between hippotherapy and clinic based therapy is the horse's ability to provide physical, sensory, and psychological benefits simultaneously to a patient throughout one hippotherapy session, which would take several clinic based sessions to see similar results (AHA, 2015). In order for hippotherapy sessions to be safe and effective it requires trained individuals that are dedicated to helping each patient achieve functional goals.

Hippotherapy Team

The hippotherapy process is unique and requires several individuals in order for the therapy session to be successful and safe. A well- trained occupational or physical therapist is an important factor in successful hippotherapy implementation. A therapist utilizing hippotherapy must understand the anatomy of the horse, the connection between the horse's movement and the patient in order to utilize this therapy tool most appropriately. It is also imperative for the therapist to understand the anatomy of the patient and the symptoms of the patient's diagnosis at hand. This knowledge helps the therapist create the most effective treatment plan for the patient. Therefore, it is highly encouraged that all therapists working in a AHA certified hippotherapy

clinic attend Treatment Principle trainings created by the AHA to ensure best practice (AHA, 2015).

Hippotherapy can look different dependent upon the area of the world where the therapy is provided. Typically, in the United States hippotherapy sessions include three individuals that play a vital role in ensuring safety of all team members and the patient throughout the hippotherapy session. The team members' roles and responsibilities are described below.

Horse handler. A horse handler is responsible for understanding the specific behaviors and movements of the horse and utilizing these to guide the horse to achieve specific patterns and movements as requested by the therapist to facilitate appropriate adaptive responses from the patient. The horse handler can be a well-trained volunteer or an instructor/ trainer who has had advanced experience in horse handling techniques. The horse handler utilizes his or her advanced equine knowledge to collaborate with the therapist to select the best horse to fit the patient's needs. The horse handler must always be aware of potential safety risks. The horse handler must identify when the horse is in distress and inform the therapist in order for him or her to perform an emergency dismount to ensure safety of the patient and team members involved in the session (AHA, 2015).

Primary side walker. The primary side walker is usually an occupational or physical therapist guiding the session. This person is labeled as the primary side walker because he or she is the primary person responsible for the child's safety. The primary side walker will be on one side of the horse with a hand on the patient's thigh or ankle for safety. Occasionally the therapist will place a hand on the patient's lower back to promote maintenance of midline position throughout the session. The therapist constructs short term and long term goals for the

patient's plan of care and utilizes different activities on the horse to help the patient achieve those goals. During the hippotherapy session, the therapist must direct the horse handler to manipulate the horse in specific patterns and movements that will help facilitate development of skills necessary for the patient to achieve the established short and long term goals (AHA, 2015).

Secondary side walker. The third individual is the secondary side-walker who is on the other side of the horse with a hand placed on the patient's thigh or ankle to ensure patient safety. The secondary side walker is often a student or volunteer. The secondary side walker may assist with interactive activities as directed by the therapist throughout the hippotherapy session. The secondary side walker is responsible for horse preparation, patient preparation, and following directions from the therapist to maintain patient position while the patient is on the horse. The secondary side walker aides the therapist in safely transitioning the patient on and off the horse, which is the riskiest time for the horse and therefore requires trained individuals to aide in this process (AHA, 2015).

All of these individuals play important roles to ensure the child's safety, the horse's safety, and the success of the hippotherapy session (AHA, 2015). Therefore, it is vital to certify that all members of the hippotherapy team understand and are comfortable with their responsibilities to maximize the patient benefits. At Children's TherAplay a mandated volunteer protocol was put into place to ensure these expectations were understood by volunteers and ensure patient safety and confidentiality.

Screening and Evaluation

Section III

Needs Assessment

The Children's TherAplay Foundation Inc. in Carmel, Indiana. Children's TherAplay provides hippotherapy sessions to approximately 170 children a year, ages 18 months to 13 years old (Children's TherAplay Foundation, 2018). The DCE focused on the occupational therapy student (OTS) performing a needs assessment in order to implement some type of program that would benefit the organization the student was partnered with. Scaffa & Reitz (2014) described the purpose of a needs assessment as the identification of the most prominent needs of a specific population. A needs assessment includes using resources to discover the needs of the population and establishing goals and objectives to meet the identified needs.

The OTS set up a face-to-face meeting with an occupational therapist on staff and the volunteer coordinator to assess the priority population and the needs of that population at Children's TherAplay. The occupational therapist and the volunteer coordinator determined the most immediate need was to further develop the existing volunteer training protocol, specifically requesting for the OTS re-make the current side walking video that was created in 2013, and implement Health Importability Accountability Act (HIPAA) standards into the new volunteer protocol. Therefore, the OTS identified the volunteers and students at Children's TherAplay, specifically focusing on the group of volunteers who help with side walking responsibilities, as the priority population. The OTS reached out to the rest of the therapy staff at Children's TherAplay for input on the new volunteer protocol. The OTS requested the therapy staff send suggestions via email by 2/8/18.

The OTS utilized a variety of resources to further explore the needs of the organization. One of the most beneficial resources was The American Hippotherapy Association Level I Treatment Principles Course Manual which helped justify the need to expand on the current volunteer protocol materials. The OTS completed a systematic search online to compile resources for the creation of the HIPAA training PowerPoint. Lastly, the OTS completed a systematic search on the American Hippotherapy Association website to identify any other hippotherapy clinics in the Indiana area; to compare and contrast Children's TherAplay volunteer protocol to other facilities in Indiana and the surrounding area.

According to the American Hippotherapy Association, Children's TherAplay Foundation, Inc. is the only AHA identified hippotherapy clinic in Indiana. A systematic search identified two therapeutic riding centers in Indiana, Morning Dove and Agape (AHA, 2018). The student reached out to both facilities during the needs assessment process to gain a better insight on volunteer protocols in other settings. The OTS sent an email to Indiana University (IU) Health's Volunteer Coordinator to explore volunteer protocols in a larger medical setting as well.

Morning Dove. Morning Dove is a therapeutic riding clinic located in Zionsville, Indiana. Morning Dove offers a variety of equine programs such as, therapeutic riding, hippotherapy, and equine learning programs (Sadler, 2018). It is important to note the difference between hippotherapy and therapeutic riding. Hippotherapy includes a trained occupational, physical, or speech therapist that utilizes the horse as a therapeutic tool in order for patients to meet functional goals (Zadnikar & Kastrin, 2011). Whereas, therapeutic riding is a broad term that includes recreational use of a horse. Therapeutic riding involves trained instructors who teach the rider how to direct the horse and care for the horse (Zadnikar & Kastrin, 2011). Since

hippotherapy is directed by a skilled therapist the volunteers' main responsibility is to assist in keeping the child safe throughout the session. In therapeutic riding volunteers could act as the instructor and therefore require a more intensive orientation session. Individuals interested in volunteering at Morning Dove are required to attend a two-and-a-half-hour orientation provided by the volunteer coordinator, prior to their first volunteering shift. This orientation includes an informational PowerPoint teaching volunteers about his or her responsibilities, safety requirements, and expectations. (N. Graper, personal communication, February 5, 2018).

Indiana University Health. An individual who volunteers at IU Health is required to attend an orientation session/ tour of the facility prior to starting. During this initial session, the volunteer will be given a detailed handbook explaining expectations of volunteers, appropriate patient interaction, and a list of volunteer responsibilities. The handbook includes specific HIPAA regulations along with a confidentiality agreement form signed by all volunteers. The handbook states strict guidelines for anyone who does not follow HIPAA compliance standards to be dismissed from the IU Health volunteer list. All IU Health volunteers are required to read through the packet, initial, and return to the volunteer coordinator upon beginning their first shift (D. Hunt, personal communication, February 5, 2018). IU Health's detailed handbook served as a valuable resource in the creation of the new volunteer protocol at Children's TherAplay.

Horse Feathers. The other therapeutic riding clinic contacted was Horsefeathers, located in Illinois. The information was received via email from an occupational therapist on staff at Horsefeathers. The therapist sent a YouTube video that volunteers are asked to watch regarding responsibilities, safety guidelines, and what to expect when volunteering. The therapist reported

“I'd love to create our own video like this but we don't have the time or resources right now” (P. Lundell, personal communication, February 9, 2018).

Children's TherAplay. The OTS analyzed the existing volunteer protocol materials prior to the implementation of the new volunteer protocol. Children's TherAplay required volunteers and students to watch a short five-minute video regarding side walking responsibilities, participate in a tour of the facility, and sign a confidentiality waiver before volunteers began working. There were no specific guidelines regarding HIPAA and its importance in this medical setting.

Results of Needs Assessment

The results of the needs assessment were revealed through interviews, systematic searches, and analysis of evidence based materials. The literature supported the results of the needs assessment. In order to continue to provide the most effective and quality hippotherapy services to each patient, it was essential all volunteers and students understand the responsibilities and regulations expected in this setting. AHA (2015) explains “All team members MUST have training in the application of equine movement, safety procedures, and confidentiality as determined by Health Insurance Portability and Accountability Act (HIPAA) regulations. It is ideal if all team members are knowledgeable about the expected outcomes of the therapy session” (AHA, 2015 p. 35). Following the needs assessment, goals of the priority population were set in place to ensure adequate knowledge and safety at Children's TherAplay. The volunteer protocol included an educational video to explain to volunteers and students the responsibilities of side walking along with a brief overview of the benefits of hippotherapy. To ensure best practice it was essential that each hippotherapy team member had an understanding

of the importance of hippotherapy, patient goals, and safety regulations. The second component of the volunteer protocol was an educational PowerPoint on HIPAA guidelines. Hughes (2005) clarified the importance of making sure volunteers at nonprofits are adequately trained in HIPAA regulations. “HIPAA medical privacy rule must train all member of its workforce on the organization’s policies and procedures for protecting patient information... this includes volunteers” (Hughes, 2005, p. 1). Hughes explained healthcare organizations are expected to train employees (and volunteers) on HIPAA regulations, but have the freedom to do so in their own format. Hughes’s article validated the importance of including the HIPAA PowerPoint as a component of the volunteer protocol.

Program Model

A Logic Model is a tool that can be used by any individual to evaluate the effectiveness of a program (McCawley, n.d.) A Logic Model can be utilized in a systematic manner to visually display the components of a program. This model breaks down the issue at hand and then incorporates potential inputs and outputs into the intervention plan. The resulting impact is seen as the outcomes. External influences are also considered in the model diagram (McCawley, n.d.). The Logic Model was used to organize the ideas for the volunteer protocol in a methodical and visual manner. By organizing the volunteer protocol with this model it provided increased validity and potential for yielding data (McCawley, n.d.).

The inputs included individuals who participated in the creation of the volunteer protocol; the OTS, occupational therapist, and volunteer coordinator. The resources used to create the volunteer protocol included evidence based literature, American Hippotherapy Association Manual, and online resources from various websites. The outputs included an updated volunteer

protocol including a new side walking video and a HIPAA compliance PowerPoint distributed to existing and new volunteers by the volunteer coordinator as they came in for their volunteer shift. The effectiveness of the updated volunteer protocol was analyzed using pre and post-surveys. The outcomes included short term and long term goals. The short term goal was to increase volunteers' awareness, knowledge, and skills regarding hippotherapy safety regulations. The long term goal was improved compliance with HIPAA regulations and continued safe practice to increase validity and awareness of hippotherapy services and benefits. The Logic Model was used to organize ideas for the volunteer protocol (see Appendix A).

Further analysis of results was done on an individual level, by the OTS utilizing the Goal Attainment Scale (GAS), (see Appendix B). The GAS is often used in "both clinical work and research to assess the effectiveness of an intervention" (Kransy-Pacini, Evans, Sohlberg, & Cgeviguard, 2016, p. 157). The student used the GAS to assess the outcomes of four specific goals related to participation in a pre- and post-survey, increased knowledge regarding hippotherapy, and knowledge regarding HIPAA compliance. The GAS uses an ordinal scale to assess the success of an intervention, in this case the volunteer protocol (see Appendix B for a description of each GAS goal) (Kransy-Pacini, Evans, Sohlberg, & Cgeviguard, 2016).

Implementation Phase

Section IV

Participants

The participants of the DCE project included any individual in the volunteer database that had participated in side walking responsibilities, no matter the amount of time he or she had been a volunteer. The volunteer coordinator sent a complete list of the participants who met this

criteria to the DCE student. Participants' ages varied from 19 years old to 65 plus years old, with varied backgrounds. The majority of participants resided in Hamilton County (K. Stratman, personal communication, February 20, 2018). Approximately 53 volunteers were sent information regarding the DCE project, detailing the purpose of the pre- and post-survey, and the necessity of a volunteer protocol.

Procedure

Following the needs assessment, a pre-survey was developed. The pre-survey questions included specific details regarding side walking responsibilities, safety guidelines, and HIPAA regulations. Pre-survey questions were reviewed by an occupational therapist and volunteer coordinator on staff. The final draft of the pre-survey questions included nine multiple choice items, and one open-ended question. The post-survey consisted of the same nine questions in the pre-survey, and one open-ended question. The questions were put into Survey Monkey; a copy of the survey questions with intended answers labeled in bold were sent to all staff (see Appendix C for a copy of the survey). An initial email was sent to all 53 volunteers on 2/20/18 which included the Survey Monkey link. A statement of consent was included, informing participants that their responses would be used to assess the quality of the materials included in the volunteer protocol.

The DCE student participated in a face-to-face meeting with the occupational therapist, volunteer coordinator, and Equine Program Manager to collaborate on the development of a detailed video script on 2/20/18. The video was filmed on 3/16/18 by a media specialist who was outsourced by the occupational therapist assisting with the DCE project.

Along with the creation of an updated side walking video, a HIPAA Training PowerPoint was created by the DCE student (see Appendix D for a copy of the PowerPoint). The occupational therapist and volunteer coordinator provided feedback throughout the development of the PowerPoint. The HIPAA PowerPoint was created utilizing resources from other therapeutic riding centers, IU Health, and online resources. The PowerPoint included a definition of HIPAA, details regarding Protected Health Information (PHI), and an explanation of Treatment, Payment, and Operation (TPO). The HIPAA PowerPoint included a slide titled “Confidentiality Statement” that all participants were asked to sign and return to the volunteer coordinator, confirming his or her understanding of the HIPAA guidelines.

Data Collection

The research design was a quantitative quasi-experimental pre-survey/post-survey design. The data collection process included the pre- and post-survey results that allowed the OTS to assess the impact of the newly instated volunteer protocol had on participants’ knowledge. The participants’ responses were assessed utilizing the Goal Attainment Scale (GAS). The scores for questions seven, eight, and nine were compared from the pre to post-survey to assess for improved knowledge regarding hippotherapy. The scores for questions five and six were assessed for improved knowledge from pre to post-survey regarding HIPAA compliance.. Results are discussed in further detail in Section V.

Leadership Skills

The OTS acted as a consultant for the therapists and volunteer coordinator during the 16-week DCE. Staff collaboration was required throughout the needs assessment process. The OTS demonstrated leadership skills by taking on a role that was outside of her comfort zone, acting as

a consultant, rather than strictly working as an OTS learning clinical skills. This role included creating and maintaining a schedule of tasks and time frames for task completion, independently working on the HIPAA training PowerPoint, and developing a video script, which were not skills that the student had utilized in previous fieldwork settings. The level of independence during this experience, required the student to stay on task and be organized to ensure that the volunteer protocol materials were completed on time. The DCE student received regular feedback from the volunteer coordinator and occupational therapist, but was expected to work on projects independently, and report to the two advisors as work was completed.

Leadership skills were also required to explain the role as a DCE student. Since this was a new experience for the site and the university, proper advocacy skills were required to explain the importance of the DCE experience. The OTS had to advocate for herself in order to ensure adequate amount of time could be spent developing the project and the DCE Summary Paper outside of other projects requested by the Children's TherAplay staff.

The service provision model that guided this DCE included consultation. The Executive Council of Physical Therapy and Occupational Therapy Examiners define consultative service provision as "the consultant seeks to create solutions that remediate the presenting problems...consultation services may be given to students, staff, and administration" (Definitions for direct service and consultation, 2015, p.1) The needs assessment revealed the issue at hand. It was important for the OTS to consult the Children's TherAplay staff, volunteers, and students on the needs assessment results and reiterate the importance of implementing a volunteer protocol.

Staff Education

Staff was educated on the importance of the volunteer protocol throughout the entire DCE process. The OTS sent an email to all therapists and selected administration staff to explain the DCE project along with requesting any input be sent via email by 2/9/18. It was important to ensure all staff were on board with the project and understood the necessity of implementing a volunteer protocol. Lastly, it was important to collaborate and receive feedback from staff in order to ensure the materials would be used for an extended period of time after completion of the DCE.

Discontinuation and Outcomes**Section V**

Pre- Survey. The OTS sent the pre-survey on 2/20/18 to 53 volunteers. Twenty- three volunteers completed the survey, of whom 20 were females, and three were males. The pre-survey was available to participants from 2/20/18-3/10/18. The average time to complete the pre-survey was three minutes. The OTS assessed the results of the pre-survey using the first GAS goal (see Appendix B). The final score was zero, meaning “the expected outcome” as outlined by the GAS was met. Approximately 43% of volunteers who were sent the pre-survey email completed the survey; the baseline goal was 40% completion rate.

Post- Survey. The OTS sent the post-survey via email on 4/02/18. The post-survey was available to participants from 4/02/18-4/11/18. The email included the link to the Survey Monkey post-survey and the new side walking video that was approximately five minutes in length, with updated information including benefits of hippotherapy, responsibilities of the hippotherapy team, and reference to HIPAA guidelines. The OTS sent the HIPAA PowerPoint as

well, which included a confidentiality statement slide that requested all volunteers sign and return to the volunteer coordinator, indicating his or her understanding of HIPAA compliance guidelines. The OTS only sent the post-survey link to volunteers who had completed the pre-survey in order to validate the use of the GAS to assess the participants' gained knowledge after viewing the video and the PowerPoint. Ten individuals completed the post-survey, of whom nine were females and one was a male. Approximately 43% of volunteers completed the post-survey out of the 23 that participated in the pre-survey. This met the baseline goal of 40%.

Results

Quantitative results. The OTS assessed the quantitative results using the GAS scale (see Appendix B for GAS goals). Forty-three percent of individuals who were sent the pre-survey participated in it resulting in a score of zero for the first GAS goal. Forty-three percent of participants completed the post-survey as well, ensuing a score of zero for the second GAS goal. Knowledge gained from viewing the video and PowerPoint were assessed by comparing the individual scores on the pre-and post-survey. Forty percent of the 10 post-survey participants showed improved knowledge regarding hippotherapy and hippotherapy services as assessed by questions #7,8,9 on the pre- and post-survey, resulting in a score of zero for the the third GAS goal. Fifty percent of post-survey participants demonstrated improved knowledge in HIPAA regulations as shown through responses on questions #5,6 on the pre-and post-survey, ensuing a score of zero for GAS goal number four.

Qualitative results. The OTS requested on question number 10 that all volunteers include his or her name and email along with any suggestions on the side walking video. On the pre-survey, several volunteers submitted questions that were valuable to ensure improved clarity

on the new side walking video. Please not all names have been changed to maintain confidentiality. For example, one volunteer stated:

I would like more information on emergency dismounts. Luckily, I have never been faced with this situation, and split second reaction is needed and everyone needs to be on the same page, it seems like there could be different scenarios- generally I think the child should go to the therapist, but what if the horse jumps in the direction of the therapist for example? P.S. this is a great idea! (M. Smith, personal communication, February, 21, 2018).

The OTS collaborated with the occupational therapist and volunteer coordinator to respond to this participant's question appropriately along with clarify that the emergency dismount procedure would be clear in the new video. Another beneficial suggestion from the pre-survey was regarding side walking responsibilities, "It might be helpful to include information regarding how and/or if a side walker should help with verbal and/or visual cues to help the therapist, or simply walk alongside. Does it depend on the therapist?" (T. Hanson, personal communication, February 20, 2018). The OTS sent an informational email to this participant to further explain what was expected of a side walker. The new video thoroughly explained that with all transitions, changing hand placements, and cueing for the child to listen to the therapist who will instruct the volunteer on what to do in each scenario throughout the hippotherapy process.

Following implementation of the volunteer protocol, post-survey qualitative results were very positive. Qualitative results were collected from participants, therapists on staff, and administrative staff. On the post-survey several of the volunteers left comments on the video

many saying “great video” “very helpful.” One volunteer stated, “Fantastic work on the new video and PowerPoint! Video was very thorough, and PowerPoint was very informative and easy to follow” (S. Wilson, personal communication, April 3, 2018). One of the fairly new occupational therapists on staff reported, “Great job! Starting off as a side walker, I appreciate the narration and video graphic timing” (S. Hudson, personal communication, April 4, 2018). All qualitative results were reassuring of the value of the newly instated volunteer protocol materials.

Discussion

Despite the small sample size for the post-survey, the qualitative and quantitative results demonstrated increased knowledge regarding HIPAA and safety procedures when assisting with hippotherapy sessions. The implementation of the volunteer protocol, will reassure therapists and administrative staff of the volunteers’ knowledge regarding patient confidentiality and hippotherapy, which will enable them all to work together as a team for delivery of best practice.

The volunteer protocol was implemented for a variety of reasons to enable continuous quality improvement at Children’s TherAplay. Quality improvement is defined as “a focus on measuring change, consists of systematic continuous action that lead to measurable improvements in healthcare services and the status of a target patient group” (Malnutrition Quality Improvement Initiative, 2016, p. 1). The volunteer protocol aided in ensuring constructs of quality improvement were met by certifying that all members of the hippotherapy team were knowledgeable about benefits of hippotherapy, importance of patient confidentiality, and responsibilities regarding side walking. Since hippotherapy services require several individuals for the therapy session to be effective, the materials provided in the volunteer protocol assisted in ensuring best practice of the entire hippotherapy team. Ensuring best practice is one of the key

components for continuous quality improvement (Malnutrition Quality Improvement Initiative, 2016).

In order to use the volunteer protocol as a resource for continuous quality improvement, it was important to create a protocol that could be adjusted easily as societal needs change. The OTS created the volunteer protocol in a way that made it versatile to promote use for an extended period of time, even after completion of the DCE. The OTS revised the volunteer protocol materials several times with assistance from the therapists on staff and the volunteer coordinator to ensure that the questions on the pre-and post-survey aligned well with the goals of the project. Collaboration was necessary to ensure the video script contained all of the necessary information and the HIPAA PowerPoint utilized evidence based resources and was easy for the target population to understand. The OTS focused on creating materials that were adaptable for the different generations and education levels to properly encompass the wide age range in the target population. The OTS saved all of the materials used on the share drive, in a folder titled *Volunteer Protocol Materials* to enable Children's TherAplay staff to make changes to the volunteer protocol as needed. Since all employees have access to the share drive, any necessary changes can be made to the existing materials as needs change. The OTS sent an informational email to all staff to present the volunteer protocol resources and to promote program sustainment. The implementation of the volunteer protocol, assisted in reassuring therapists and administrative staff in the volunteers' knowledge regarding patient confidentiality and hippotherapy, which will enable them all to work together as a team for delivery of best practice.

Overall Learning

Section VI

The DCE experience was unique in many ways. This experience allowed the student to expand beyond the generalist level of OT and learn more about this specialty area of practice, hippotherapy. This experience required the OTS to become more independent, assertive, and further develop professional communication skills. The original focus of the DCE was to further develop clinical skills along with improve advocacy skills. By the end of 16 weeks the DCE focus included a variety of opportunities that enabled the student to grow as a future OT practitioner.

Clinical Skills

The DCE allowed the student to further develop clinical skills in a pediatric hippotherapy setting. The student became proficient in the electronic medical record system Practice Perfect. The student administered the PDMS-2 to three children and the Sensory Profile II to two parents. The student developed interpersonal and professional communication skills with parents of the children on her caseload. These skills were demonstrated when the student was required to explain evaluation scores to parents and explain the child's progress in daily treatment. The student provided communication through the use of layman terms while also explaining the clinical importance of equine movement and therapy interventions. The student collaborated with other therapy disciplines to discuss shared patient progress and to seek advice for effective intervention plan ideas. Since this was the student's first long pediatric experience, she learned that pediatrics requires upbeat energy, creativity, and patience. The student demonstrated flexibility, creativity, and further developed assertive communication skills to enhance success of

the interventions provided. All of these skills were valuable in the development as a future OT practitioner.

Advocacy

Advocacy was the second focus of the DCE experience. The student created a volunteer protocol that required advocacy skills to ensure follow through and efficiency of the materials. The student utilized communication through the company email to address all faculty requesting input on the volunteer protocol. The student also utilized Survey Monkey to collect responses from volunteers regarding input for the new video. The student used a variety of communication outlets to connect with staff, participants of the project, and community members in order to create and implement a sustainable and valuable volunteer protocol. The student participated in a variety of advocacy projects along with the main project of the volunteer protocol.

The student's first advocacy project was focused on assisting with the United Way Alignment report write up. The student reached out to United Way's Vice President, Christina Hage, to discuss Indiana's regulations and policies regarding treatment of children with disabilities. This provided an opportunity for the OTS to use professional communication to connect with an individual involved in legislation, and provided an opportunity for advocacy of occupational therapy and Children's TherAplay organization. The student received detailed information from Ms. Hage regarding organizations in the Indiana area that financially assist families who have children with disabilities. These resources were then relayed to the Children's TherAplay Executive Director to ensure distribution of this knowledge to TherAplay staff and families. This experience was beneficial for the OTS because it required her to step outside her comfort zone and promote OT along with a nonprofit organization.

Another area of advocacy and leadership that the student had an opportunity to participate in was the Taste of Chamber 2018 event. This was an outreach opportunity that required the student to assist with setting up a Children's TherAplay display table and educate attendees on TherAplay's mission, vision, and fundraising opportunities. The attendees included other nonprofit agency employees, restaurant managers, and large business personnel throughout the Indianapolis area. This was a great opportunity to network and advocate for the OT profession and Children's TherAplay Foundation. These two experiences, were a small sample of the multiple advocacy opportunities that the OTS participated in during this 16-week experience. The student gained valuable professional communication, advocacy, collaboration, and clinical skills throughout this experience.

References

- Ajzenman, H., Standeven, J., & Shurtleff, T. (2013). Effect of hippotherapy on motor control, adaptive behaviors, and participation in children with autism spectrum disorder/ A pilot study. *The American Journal of Occupational Therapy*, 67(2), 653-663. doi: <http://dx.doi.org/10.5014/ajot.2013.008383>
- American Hippotherapy Association, Inc. (2018). AHA Member Facilities in the United States. Retrieved from <http://www.americanhippotherapyassociation.org/hippotherapy/find-a-facility/>
- American Hippotherapy Association, Inc. (2015). Level I treatment principles. *Course Manual Fifth Edition*. (pp 30-39).
- American Occupational Therapy Association. (2014). Occupational therapy practice framework: Domain and process (3 rd ed.). *American Journal of Occupational Therapy*, 68(Suppl. 1), S1-S48.
- Baker, S. (2015). Emerging practice areas: Occupational and hippotherapy. *Australia Occupational Therapy*, 12(5), 14-15. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/26726326>
- Case-Smith, J., & O'Brien, J.C. (2015). *Occupational Therapy for Children and Adolescents* (7th ed.). St. Louis, MO: Elsevier Inc.
- Cole, M. B. & Tufano, R. (2008). *Applied theories in occupational therapy: A practical approach*. Thorofare, NJ: Slack Incorporated.

Definition for direct service and consultation. 2015. Retrieved from

https://www.saisd.net/main/documents/2015/Section504/def_direct_service_consult.pdf

Govender, P., Barlow, C., & Ballim, S. (2016). Hippotherapy in occupational therapy practice. *South African Journal of Occupational Therapy*, 46(2), 31-36.

doi:10.17159/2310-3833/2016/v46n2a6

Granados, A. C., & Agís, I. F. (2011). Why children with special needs feel better with hippotherapy sessions: A conceptual review. *Journal of Alternative & Complementary Medicine*, 17(3), 191-197. doi:10.1089/acm.2009.0229

Hughes, L. (2015) HIPAA compliance for volunteers? *Medscape*. Retrieved from

<https://www.medscape.com/viewarticle/504205>

Koca, T. T., & Ataseven, H. (2016). What is hippotherapy? The indications and effectiveness of hippotherapy. *Northern Clinics of Istanbul*, 2(3), 247–252.

<http://doi.org/10.14744/nci.2016.71601>

Kransy-Pacini A., Evans, J., Sohlberg, M., Chevignard, M. (2016). Proposed criteria for appraising Goal Attainment Scales used as outcome measures in rehabilitation research.

American Congress of Rehabilitation Medicine. (97), 157-169.

<http://dx.doi.org/10.1016/j.apmr.2015.08.424>

Malnutrition Quality Improvement Initiative. 2016. Principles and models of quality

improvement. Retrieved from <http://malnutrition.com/static/pdf/mqii-principles-and-models-of-quality-improvement.pdf>

- Mathews, A. (2012). What is proprioception and why is it important? *North shore Pediatric Therapy*. Retrieved from <https://nspt4kids.com/parenting/what-is-proprioception-and-why-is-it-important/>
- McCawley, P. (n.d.). The Logic Model for program planning and evaluation. *University of Idaho Extension*. Retrieved from <https://www.d.umn.edu/~kgilbert/educ5165-731/Readings/The%20Logic%20Model.pdf>
- North Shore Pediatric Therapy. 2017. What is vestibular system? *Vestibular Processing*. Retrieved from <https://nspt4kids.com/healthtopics-and-conditions-database/vestibular-processing/>
- Sadler, Elizabeth. (2018) Morning Dove Therapeutic Riding. Retrieved from <http://morningdovetrc.org/volunteering/>
- Scaffa, M.E. & Reitz, S.M. (2014). *Occupational therapy in community-based practice settings* (2nd ed.). Philadelphia, PA: F.A. Davis Company.
- Shirvastav, N. (2014). Occupational therapy intervention to combat stress levels of mothers of children with Autism. *The Indian Journal of Occupational Therapy* 46(2), 55-60. Retrieved from <http://web.a.ebscohost.com.ezproxy.uindy.edu/ehost/pdfviewer/pdfviewer?vid=7&sid=891c1c5d-8dc5-48bd-83a5-007915d97a27%40sessionmgr4006>
- Taylor, R., Kelhofner, G., Smith, C., Butler, S., Cahill, S., Ciukaj, M., & Gehman, M. (2009). Volitional change in children with autism: A single-case design study of the impact of hippotherapy on motivation. *Occupational Therapy in Mental Health*, 25(2), 192-200. doi:10.1080/01642120902859287

The Children's TherAplay Foundation, Inc. (2018). Who We Are. Retrieved from

<http://www.childrenstheraplay.org/who-we-are>

The OT Tool Box. 2016. Bilateral coordination activities. *Bilateral Coordination*. Retrieved

from <http://www.theottoolbox.com/p/bilateral-coordination-activities.html>

Thompson, F., Ketcham, C., Hall, E. (2014). Hippotherapy in children with Developmental

Delays: Physical function and psychological benefits. *Advances in Physical Education*, 4,

60-69. Retrieved from <http://dx.doi.org/10.4236/ape.2014.42009>

Zadnikar, M., & Kastrin, A. (2011). Effects of hippotherapy and therapeutic horseback riding on

postural control or balance in children with cerebral palsy: a meta-

analysis. *Developmental Medicine & Child Neurology*, 53(8), 684-691.

doi:10.1111/j.1469-8749.2011.03951.x

Appendix A

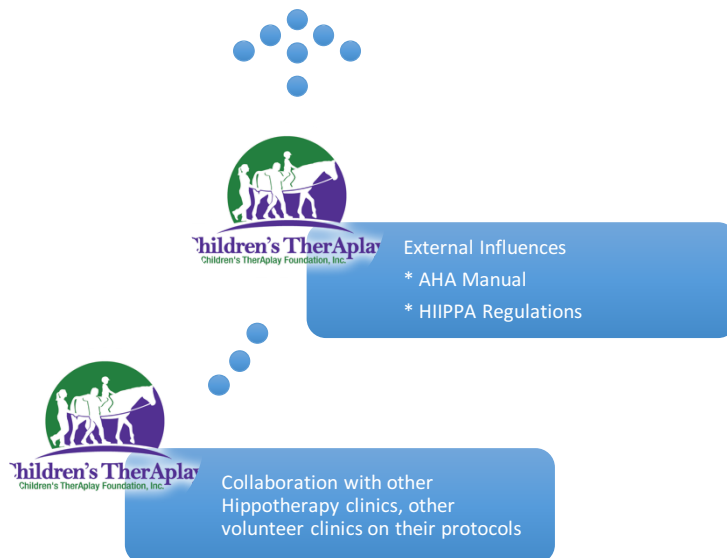
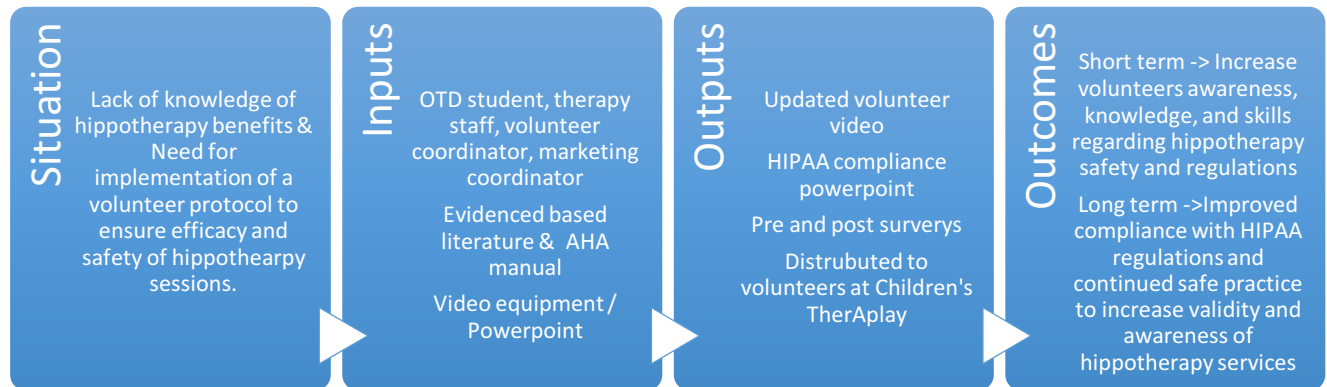
Logic Model for Volunteer Protocol Implementation

Figure 1. Logic Model graphic detailing volunteer protocol components (McCawley, n.d.).

Appendix B

Goal Attainment Scale Goals for Volunteer Protocol

Score	Levels of Attainment	Pre-survey Participation Goal #1	Post-survey Participation Goal #2	Post-survey Results Goal #3	HIPAA Training Goal #4
+2	Much more than expected outcome	80% of the 65 volunteers will participate in the pre-survey test	80% of the volunteers who completed the pre-survey will participate in the post-survey test	80% of volunteers will demonstrate improved knowledge in hippotherapy services identified by responses on questions #7,8,9	80% of volunteers will demonstrate increased knowledge regarding HIPAA identified by responses to questions #5, 6 on the survey
+1	Somewhat more than expected outcome	60% of the 65 volunteers will participate in the pre-survey test	60% of the volunteers who completed the pre-survey will participate in the post-survey test	60% of volunteers will demonstrate improved knowledge in hippotherapy services identified by responses on questions #7,8,9	60% of volunteers will demonstrate increased knowledge regarding HIPAA identified by responses to questions #5, 6 on the survey
0	Expected outcome	40% of the 65 volunteers will participate in the pre-survey test	40% of the volunteers who completed the pre-survey will participate in the post-survey test	40% of volunteers will demonstrate improved knowledge in hippotherapy services identified by responses on questions #7,8,9	40% of volunteers will demonstrate increased knowledge regarding HIPAA identified by responses to questions #5, 6 on the survey
-1	Somewhat less than expected outcome	20% of the 65 volunteers will participate in the pre-survey test	20% of the volunteers who completed the pre-survey will participate in the post-survey test	20% of volunteers will demonstrate improved knowledge in hippotherapy services identified by responses on questions #7,8,9	20% of volunteers will demonstrate increased knowledge regarding HIPAA identified by responses to questions #5, 6 on the survey
-2	Much less than expected outcome	10% of the 65 volunteers will participate in the pre-survey test	10% of the volunteers who completed the pre-survey will participate in the post-survey test	10% of volunteers will demonstrate improved knowledge in hippotherapy services identified	10% of volunteers will demonstrate increased knowledge regarding HIPAA identified by responses to

				by responses on questions #7,8,9	questions #5, 6 on the survey
--	--	--	--	-------------------------------------	----------------------------------

Figure 2. Goal Attainment Scale (GAS). This scale was used to assess each participants outcomes and results related to goals following the pre and post-surveys. The scale assessed participation in pre- and post-surveys along with increased knowledge in pre- vs. post-surveys following the implementation of the volunteer protocol. The results were based off of an ordinal scale with the score of zero being the baseline and therefore expected outcome. Detailed results of the GAS can be found in Section V of the paper (Shirvastav, 2014).

Appendix C

Side walking Pre- and Post- Survey

Please circle the following option that you feel is most accurate.

- 1) How long have you been a volunteer at Children's TherAplay Foundation?
 - a) 0-3 months
 - b) 3-6 months
 - c) 6-12 months
 - d) 1-year plus**Answer Varies**
- 2) Please rate your agreement with the following statement: I am comfortable with the responsibilities involved with side walking
 - a) Strongly Agree
 - b) Agree
 - c) Neutral
 - d) Disagree
 - e) Strongly Disagree**Answer Varies**
- 3) Please rate your agreement with the following statement: I have the necessary knowledge of horse safety.
 - a) Strongly Agree
 - b) Agree
 - c) Neutral
 - d) Disagree
 - e) Strongly Disagree**Answer Varies**
- 4) Please rate your agreement with the following statement: I have the necessary knowledge about patient safety.
 - a) Strongly Agree
 - b) Agree
 - c) Neutral
 - d) Disagree
 - e) Strongly Disagree**Answer Varies**
- 5) Please rate your agreement with the following statement: I understand the Health Insurance Portability and Accountability Act (HIPAA) and how it applies to this clinical setting.
 - a) Strongly Agree
 - b) Agree

- c) Neutral
- d) Disagree
- e) Strongly Disagree

Answer Varies

6) According to HIPAA regulations, which of the following violates HIPAA compliance?

- a) Discussing a child's diagnosis with another volunteer
- b) Talking to someone other than the therapist about a child using their first and last name, age, or diagnosis
- c) Asking if a specific child receives treatment at the Children's TherAplay Foundation
- d) **All the above**

7) What is the best way to aid a primary side walker in the case of an emergency dismount?

- a) Follow directions from the horse handler
- b) **Push the child into the therapist's arms and follow directions from the therapist**
- c) Grab the child off the horse immediately
- d) Push the child into the therapist's arms and follow directions from the horse handler

8) Please rate your agreement with the following statement: I understand the various physical, mental, and sensory benefits hippotherapy can provide to children with special needs?

- a) Strongly Agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly Disagree

Answer Varies

9) Which of the following best describes hippotherapy?

- a) The child learns how to ride a horse
- b) The child gains overall strength to participate in daily activities
- c) **The use of a horse for therapeutic treatment to aid the child in meeting functional goals**
- d) It is a treatment that is covered by insurance

10) Do you have any suggestions to improve the side walking video?

Appendix D

Health Insurance Portability and Accountability Act Training

Children's TherAplay
The Children's TherAplay Foundation, Inc.

Health Insurance Portability
and Accountability Act
(HIPAA) Training

Why HIPAA Training is Important

- ▶ According to the American Hippotherapy Association (AHA) "anyone working in or around a hippotherapy setting must be trained, safe, and professional, and understand the confidentiality requirements of working in a therapy session" (AHA, 2015, p. 36)
- ▶ The goal is that all paid staff, along with volunteers will:
 - ▶ Understand the importance of using the horse for medical treatment
 - ▶ Understand the projected results and the purpose of using equine movement
 - ▶ Understand and adhere to the HIPAA regulations set into place for any medical setting

(AHA, 2015)

What is HIPAA?

- ▶ HIPAA → was enacted in 1996 into the Federal Law to protect patient privacy
- ▶ It is a law meant to keep each patient's health information confidential and protect patient privacy
- ▶ Anytime an individual comes across patient information that is written, spoken, or electronic that person is required to follow HIPAA regulations
 - ▶ This is why the HIPAA laws require every team member to have training on HIPAA regulations, including volunteers, to ensure privacy of each patient

(Unity Point Health, 2016)

What is Protected Health Information?

- ▶ Protected Health Information → PHI is classified as any health information that identifies a patient or could be used to identify a patient and therefore **MUST BE PROTECTED**
- ▶ The following slide includes a list of the 18 PHI identifiers that should be held confidential and protected as private to ensure patient, facility, and staff safety and in order to abide by HIPAA regulations

(New Horizons North Inc., n.d.)

18 Personal Health Information Identifiers

- ▶ **Names (code names are used at TherAplay)**
 - ▶ Includes first 3 letters of child's last name and first 2 letters of child's first name
- ▶ Postal address except State
- ▶ **All elements of dates (i.e., birth, admission, death, discharge date)**
- ▶ Telephone numbers
- ▶ Fax number
- ▶ **Email addresses**
- ▶ URL address
- ▶ IP address number
- ▶ Social security number
- ▶ Account numbers
- ▶ **License/certificate numbers**
- ▶ Medical Record Number
- ▶ Device identifiers and serial numbers
- ▶ Health plan beneficiary number
- ▶ Vehicle license plate and serial numbers
- ▶ Biometric identifiers (finger and voice prints)
- ▶ **Full face photos and other comparable images**
- ▶ Any other unique identifying number, code, or characteristic

(Unity Point Health, 2016)

(Unity Point Health, 2016)

What is Treatment, Payment, and Operation?

- ▶ **Treatment, Payment, and Operation → TPO** is set into place to allow medical facilities to share patient information for specific reasons listed below
 - ▶ **Treatment** – in order to appropriately provide therapy services / medical care to the patient
 - ▶ **Payment** – in order to receive appropriate reimbursement for the therapy services
 - ▶ **Operations** – in order to complete "business activities such as quality improvement, training, auditing, customer service, and resolution of grievances" (New Horizons North Inc. n.d., p. 2)
- ▶ In order to share patient information outside of the TPO guidelines, signed consent from patient or guardian must be given

(New Horizons North Inc. n.d.)

Federal & State Requirements

- ▶ It is important to keep our patient's personal health information private in order to ensure the safety of the child and to warrant the privacy every patient and family deserves
- ▶ It is also important to keep each patient's personal health information safe because "Federal and State laws require us to keep patient information private. There are fines and criminal penalties for organizations and individuals who violate these laws" (University of California San Francisco, 2016, p. 7)

Patient Confidentiality

- ▶ In order to keep patient information confidential volunteers, along with other staff members, should keep information inquiries limited to a "need to know" basis
- ▶ Therapists and other staff members cannot discuss a patient's personal and medical information, unless it is necessary to ensure a safe and effective hippotherapy session
- ▶ Please avoid asking staff about a patient's condition or medical background to ensure the privacy of our patients can be maintained
(Indiana University Health, 2017).

Scenarios

- ▶ #1 You are side walking with a patient you have not seen before and you would like to learn more about that patient so you begin to ask the therapist questions.
 - ▶ It is OK to: Ask the child's name and goals the child is working towards in order to better understand different activities the child may be doing on the horse to meet functional goals
 - ▶ It is NOT OK to: Share the information you learned about the new client with another volunteer or a family member. Or ask the therapist the patient's name, diagnosis, and age (unless given by therapist or patient voluntarily)

Scenarios

- ▶ #2 You running errands and run into a fellow volunteer, you two stop to talk for a while.
 - ▶ It is OK to: Discuss personal matters and talk about when you are volunteering at TherAplay next
 - ▶ It is NOT OK to: Discuss a specific patient's progress and or discuss patient's first and last name while in public, without patient or guardian consent

Scenarios

- ▶ #3 You are out at a community event and see a family that you know from Children's TherAplay.
 - ▶ It is OK to: Acknowledge the family and ask how they are doing if the family approaches you and initiates the conversation FIRST
 - ▶ It is NOT OK to: Ask the family specific questions regarding the child's progress in therapy, as this is confidential information

Confidentiality Statement

Statement of Confidentiality

I understand that all information, both written and verbal, regarding clients at Children's TherAplay and confidential business matters shall be held in strict confidence at all times except as needed within the facility for therapy and/or business purposes.

I also understand that a breach of confidentiality is grounds for dismissal and may result in legal prosecution.

I certify that I have no felony convictions or any convictions involving dishonesty and know of no reason that I cannot be trusted with confidential health information.

Signature

Date

Thank you!!

- ▶ The work we do here at Children's TherAplay would not be possible without the help of our dedicated volunteers. We truly appreciate your assistance in helping us provide the best hippotherapy treatment to our patients
- ▶ We hope following this HIPAA training you feel more cognizant of HIPAA regulations and understand why it is so important to us to secure the safety and privacy of the patients we treat!
- ▶ If you have further questions regarding HIPAA regulations please contact Development Assistant & Volunteer Coordinator, Kate Stratman at kstratman@childrenstheraplay.org or Occupational Therapist, Leah Van Antwerp at lvantwerp@childrenstheraplay.org

References

American Hippotherapy Association Inc. (2015). Level I treatment principles. *Course Manual Fifth Edition*. (p. 30-37).

HIPAA. (n.d.) Awareness Training for Volunteers. Retrieved from <http://bf.kendal.org/wp-content/uploads/sites/7/2014/10/HIPAA-In-Service.pdf>

Indiana University Health. (2017). Volunteer handbook. Retrieved from email communication.

New Horizons North Inc. (n.d.). HIPAA Awareness Training. Retrieved from http://www.newhorizonsnorth.org/uploads/3/1/6/6/31663293/section_4a-hipaa_awareness.pdf

Unity Point Health. (2016). HIPAA Training. Retrieved from <https://www.unitypoint.org/madison/filesimages/Privacy%20and%20Security%20Training%20for%20Volunteers1.pdf>

University of California San Francisco. (2016). HIPAA 101 *Privacy and Security*. Retrieved from <https://hipaa.ucsf.edu/sites/hipaa.ucsf.edu/files/HIPAA%20101%20for%20Website%20100316.pdf>