A Hippotherapy Protocol for Occupational Therapists

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A HIPPOTHERAPY PROTOCOL FOR OCCUPATIONAL THERAPISTS

by

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This Scholarly Project Paper, submitted by Callie Holt and Kristin Sonderland in partial fulfillment of the requirement for the degree of Master’s of Occupational Therapy from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

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Title A Hippotherapy Protocol for Occupational Therapists

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Signature Callie Holt Date 1/4/06

Signature Kristin Sondeland Date 1/4/06
TABLE OF CONTENTS

ABSTRACT ...................................................................................................................... vi

CHAPTER

I. INTRODUCTION ........................................................................................................ 1
   Statement of the Problem ................................................................................... 1
   Purpose of the Study ........................................................................................ 2

II. REVIEW OF LITERATURE ..................................................................................... 3
   History .................................................................................................................. 4
   Benefits ............................................................................................................... 5
   Populations ......................................................................................................... 5
   Hippotherapy and Cerebral Palsy ....................................................................... 6
   Hippotherapy and Other Diagnoses .................................................................... 8
   Hippotherapy and Adults .................................................................................. 9
   Client Qualifications ......................................................................................... 11
   Contraindications ............................................................................................. 11
   Program Considerations ................................................................................... 12
   Therapy Horse Characteristics ......................................................................... 13
   Referrals and Reimbursement ......................................................................... 14
   Treatment .......................................................................................................... 15
   Theory ............................................................................................................... 16
Abstract

Hippotherapy is an occupational, physical, and speech therapy treatment strategy that utilizes equine movement. Hippotherapy is utilized as part of an integrated treatment program to achieve functional outcomes. In hippotherapy, the client engages in activities that are enjoyable and challenging while the therapist modifies the horse’s movement and grades sensory input to improve neurological function and sensory processing (American Hippotherapy Association, 2003).

The purpose of this scholarly project was to create a hippotherapy protocol for occupational therapists interested in developing a hippotherapy program. It was the intent that this hippotherapy protocol be utilized with individuals of all ages who would benefit from hippotherapy treatment. The authors completed an extensive review of literature on hippotherapy treatment for individuals of various ages and diagnoses. Based on the literature review, a hippotherapy protocol specific to occupational therapists was created based on the Person-Environment-Occupation Model.

The hippotherapy protocol contains information on the following areas: facility and equipment, horses, personnel, clients, treatment programming, legalities, and budget and billing. There are also sections containing contact information and references as well as initial client profile forms and HIPAA Release forms. The goal of this proposed occupational therapy protocol is to provide occupational therapists with a beneficial tool when developing a hippotherapy program.
CHAPTER I
INTRODUCTION

One of the challenges occupational therapists face today is to provide purposeful and meaningful activities for individuals with disabilities. Occasionally, therapists may become stuck in the same routine of therapeutic exercises and activities that are no longer intrinsically motivating for their patients. Hippotherapy is an alternative treatment strategy provided by occupational, physical, and speech therapists that utilizes equine movement. During treatment the patient engages in activities on the horse that are enjoyable and challenging, while the therapist modifies the horse’s movement and carefully grades sensory input. During hippotherapy, a foundation is established to improve neurological function and sensory processing that can be generalized to a wide range of daily activities (American Hippotherapy Association, 2003). Hippotherapy can be used as an additional treatment intervention to promote increases in functioning and quality of life for the participants.

Despite subjective, personal accounts of success, there is little research that has been conducted to support the efficacy of hippotherapy as a treatment strategy. The existing literature has focused primarily on the benefits of hippotherapy in children with cerebral palsy. This literature supports that hippotherapy is a viable treatment approach that can be used to improve muscle symmetry and coordination, increase postural control, and provide significant psychological gains (Benda, McGibbon, & Grant, 2003; Bertoti, 1988; Casady &
Other literature focuses on the benefits of hippotherapy for individuals with spinal cord injury, pineal ependymoma, sensory modulation disorders, children who are grieving, and individuals with psychiatric disabilities (Bizub, Joy, & Davidson, 2003; Chandler, 2003; Glazer, Clark, & Stein, 2004; Lechner, Feldhaus, Gudmundsen, Hegemann, Michel, Zach, et al. 1995; Osborne, 1998). The literature did not thoroughly address the effects of hippotherapy with the adult population, nor did it provide occupational therapists with a means of implementing a hippotherapy program.

The purpose of the scholarly project was to describe current hippotherapy literature and develop a protocol for occupational therapists to utilize in developing a hippotherapy program. Data collected suggested that hippotherapy is beneficial to individuals with disability. Creation of a protocol may ultimately increase the ease of implementing hippotherapy for occupational therapists. Chapter two provides a comprehensive review of literature. Chapter three describes the process that was used to design the hippotherapy protocol for occupational therapists. Chapter four provides a summary of the hippotherapy protocol for occupational therapists with the complete product found in the Appendix. Chapter five summarizes the project, provides suggestions for implementing the product, and addresses areas of future research.
CHAPTER II
REVIEW OF LITERATURE

Overview

Hippotherapy is a therapeutic intervention involving horseback riding used by occupational therapists, physical therapists, as well as speech therapists. Hippotherapy uses the multidimensional, rhythmic movements of the horse to facilitate head, neck, and trunk control as well as coordinated extremity control (Borzo, 2002; Cantu, 2005). It is used as an adjunctive activity in treatment to facilitate basic performance skills such as balance and equilibrium reactions, postural control, body awareness, sensory processing and gross motor coordination, which the individual can apply to other activities. Hippotherapy achieves this by mobilizing the hips and pelvis, stimulating the central nervous system, activating weak musculature, and decreasing spasticity (Cantu, 2005).

The purpose of this literature review is to analyze past and current research articles to assist in creating a protocol for occupational therapists to follow while developing a hippotherapy program at a rehabilitative facility. Areas that will be covered in this review of literature include the history of hippotherapy, the benefits of hippotherapy with various populations, the characteristics of suitable patients as well as contraindications of hippotherapy. Administrative requirements including referrals, reimbursement, and treatment approaches will also be discussed in this review of literature.

According to Spink (1993), therapy with a horse is an activity that can be intrinsically motivating as well as meaningful and purposeful to individuals with
disability. Activities that require repetition tend to be less fatiguing and boring when performed astride a horse. The multidimensional, rhythmic movement of the horse can be graded from a low level to a high level to meet the individual needs of each client. The movement of the horse has a unique ability to mimic human gait, and benefits individuals with movement dysfunction by improving posture, movement, and function (Meregillano, 2004). The horse provides clients with a steady input of sensory stimuli that is more natural and spontaneous. This includes tactile, proprioceptive, vestibular, visual, auditory, and olfactory sensory stimuli.

A therapist is able to modify and regulate this steady input of sensory stimuli to meet each client's individual needs (Spink, 1993). Although hippotherapy has extensive benefits, it should not be used as a sole therapeutic intervention. Overall, it has proven to be an effective therapeutic modality that enhances performance skills when used in combination with traditional intervention (Cantu, 2005).

History

Hippotherapy is fairly new to the United States; however, it has been used as a form of treatment in Europe since the 1940’s (Dellinger & Cummins, 1997). It was first introduced to physical and occupational therapists in the United States in 1982 through a series of introductory workshops in Warwick, New York. From 1982 to 1990, a series of presentations were provided to inform professionals on the potential that hippotherapy has for treating patients with special needs (Spink, 1993). Following these presentations, Spink (1993) reported a more specific treatment system was needed to facilitate significant understanding of hippotherapy as a legitimate treatment approach. These
events lead to the realization that a need for credible research was the key to the field’s professional growth.

**Benefits**

Hippotherapy is unique in that it provides the rider with physical, social, cognitive, and emotional growth. Physical benefits include increasing mobilization of the pelvis and hip joints; normalizing muscle tone; increasing postural control of the head and neck; and improving endurance, symmetry, and body awareness (Cantu, 2005). Additional physical benefits are improved posture, muscle tone, flexibility, and increased endurance. Individuals also enhance sensory processing skills and motor planning skills while receiving hippotherapy treatment. The social, cognitive, and emotional benefits of hippotherapy include improved self-esteem, confidence, social interactions, concentration, attention span, and communication (Meregillano, 2004). Behavior modifications, improved cognition, social participation, body awareness, motivation, and problem-solving skills are additional areas that are addressed in hippotherapy (Byam & Simmons, 2005).

**Populations**

Hippotherapy has been found to be effective with a wide variety of populations. These include patients with cerebrovascular accident (CVA), cerebral palsy (CP), traumatic brain injury (TBI), multiple sclerosis (MS), limb deformity, spinal deformity, and muscular dystrophy (Meregillano, 2004). It can also be effective for people who have decreased strength and endurance; a short attention span; difficulty following directions; difficulty sequencing tasks; difficulty problem solving; and difficulty completing activities of daily living (ADLs) (Byam & Simmons, 2005). The majority of
literature found documents the use of hippotherapy with individuals diagnosed with cerebral palsy. The following sections describe the findings related to cerebral palsy and then the literature found regarding application of hippotherapy with other populations, including adults.

Hippotherapy and Cerebral Palsy. Benda, McGibbon, and Grant (2003) found significant improvements in muscle symmetry in children with CP who displayed a high asymmetry in muscle activity prior to treatment. The slow, rhythmic movement of the horse, as well as the warmth from the horse, combines to gently stretch stiff muscles in the legs reducing abnormally high tone and promoting relaxation. At the same time, this promotes bilateral symmetrical postural responses that increase the tone in muscles that are hypoactive. This allows riders to experience symmetrical trunk and pelvic movement, which may enhance one’s sitting posture (Land, Errington-Provalac, & Paul, 2001).

Following hippotherapy treatment, children with CP, may demonstrate better coordination of the upper trunk and the lower trunk. More specifically, improvements were noted in functional mobility as evidenced by taking steps, sitting and standing in the bathtub, transferring in and out of a wheelchair, and ascending/descending stairs (Haehl, Giuliana, & Lewis, 1999). Children may also significantly decrease energy expenditure and increase efficiency in walking following treatment in a hippotherapy program (McGibbon, Andrade, Widener & Cintas, 1998). It is important for one to keep in mind that normalcy is not the goal in hippotherapy treatment; rather the treatment is intended to give the child an opportunity to explore new movement possibilities as previously
preferred movement strategies become less stable and new more efficient movement patterns emerge.

Bertoti (1988) studied postural control in children with CP following hippotherapy treatment. Positive outcomes that were documented include increased midline head control with decreased neck hyperextension and less scapular retraction, improved trunk symmetry with decreased lateral flexion, and increased trunk elongation with more erect posture. Positive outcomes were also noted by decreased anterior pelvic tilt, and decreased scoliosis with exaggerated lumbar lordosis. The posture assessment scale was used to rate the children’s posture. In this assessment, the rater views the child’s stance anteriorly, laterally, and posteriorly by walking around the child while scoring (0-3) for each of the five sections of the posture rating scale.

Hippotherapy has also been found to have psychological benefits in children with CP. Children may display significant psychological gains in self-perception. Several observations that were made following hippotherapy treatment include improvements in social skills, self-image, motivation, self perception, self-confidence, self-esteem, cooperation, enthusiasm, attention span, and an increased willingness to try new activities (MacKinnon et al., 1995).

Additional physical improvements that were seen in children with CP include weekly progress in sitting position on the horse, improved posture, trunk control, pelvic mobility, and hand control. Participants achieved better skill and self-confidence relative to riding a horse. Overall, hippotherapy has the potential to be a valuable treatment intervention that maximizes function through actively engaging children in a motivating setting (Casady & Nichols-Larsen, 2004).
**Hippotherapy and Other Diagnoses.** Despite the fact that most research has been performed on children with CP, hippotherapy still has a positive effect on other diagnoses such as spinal cord injury (SCI), pineal ependymoma, sensory modulation disorder, children who are grieving, and individuals with psychiatric disabilities. Lechner, et al. (2003) studied the short-term effects of hippotherapy on patients with spinal cord injury. They found that there was a positive effect on spasticity among individuals with spinal cord injury. The population sample ranged between the ages of 16 and 72 years, with a mean age of 37 years old. The Ashworth Scale (Ashworth, 1964) was used to grade the degree of spasticity in each subject. Results showed that hippotherapy had an immediate effect on the subjects, by reducing the spasticity of the lower extremities of the patients involved in the study.

Hippotherapy was implemented at a summer camp for twelve children with sensory modulation disorder. The results of the study indicated that a positive change within the family occurred, although it did not identify what factors of the camp contributed to this result. Chandler (2003) reported, “The summer camp was effective for the majority of the campers. The children and their families perceived an increase in occupational performance and satisfaction with that performance (p. 61).”

Glazer, Clark, and Stein (2004) conducted a study with five grieving children and found that a 6-week hippotherapy program was successful for the children. Glazer et al. reported, “The children gained confidence, trust, and communication skills. Their communication with others, as well as with the horses, increased (p. 175).” The parents and guardians all saw this as a positive experience and noted increased communication, discussion about the deceased, self-confidence, and self-esteem. “Success with the
horses appeared to be impoiiient to the children, who expressed pride and joy in their accomplishments (p. 175)," stated Glazer et al. The success of this program demonstrated the importance of using a variety of activities for grieving children and their families, and to assist the child in finding a safe way and place to express his or her grief. This study supports hippotherapy as an effective intervention for a child’s overall emotional wellbeing.

The overall results that were documented following the use of hippotherapy on individuals diagnosed with pineal ependymoma, sensory modulation disorder, psychiatric disorders and children who are grieving included both physical and psychological gains. The physical gains resulted in increased independence in wheelchair mobility, transfers, and standing tolerance. The psychological gains included increased confidence, trust, and communication skills; enhanced self efficacy, increased self esteem, increased relaxation and a sense of self accomplishment (Bizub, Joy, & Davidson, 2003; Chandler, 2003; Glazer et al., 2004; Osborne, 1998).

Hippotherapy and Adults. Brock (1988) conducted a study on the effects of hippotherapy on physically disabled adults. The study was conducted on individuals ranging in age from 19-41 years old. Diagnoses ranged from head trauma, visual impairment, cerebral palsy, and epilepsy. The treatment sessions occurred two times a week and lasted for 8 weeks total. During each treatment session the clients were directed to maintain proper posture while they stretched and exercised on horseback. Overall, the clients developed increased arm and leg coordination and strength (Brock, 1988). This study demonstrated that hippotherapy was an effective treatment for adults with a range of physical disabilities.
Osborne (1998) analyzed hippotherapy as an intervention for a 22-year-old woman with pineal ependymoma. Hippotherapy began immediately after she was admitted to a post-acute brain injury rehabilitation facility. The patient underwent nine weeks of hippotherapy sessions lasting between 15-30 minutes each. During the first hippotherapy session, the patient was only able to tolerate 15 minutes of sitting upright on the horse while holding tightly to the horn of the saddle.

As treatment progressed, the patient was able to switch to a horse that provided more challenging movement. Therapists increased the speed of walk, incorporated serpentine to encourage lateral movement, facilitated abrupt starting and stopping, and encouraged standing in the stirrups while weight bearing through the upper extremities. By the final hippotherapy session, the patient sat without holding onto the saddle for 5 seconds and tolerated 30 minutes on the horse. At discharge, the patient increased to independence in wheelchair mobility indoors, she could transfer with contact guard assistance 60% of the time, and was able to stand with her stabilized walker for up to three minutes.

Bizub, et al. (2003) conducted a study on the use of hippotherapy on individuals diagnosed with psychiatric disabilities. The results of the study showed that horseback riding enhanced the participants' self-efficacy, increased their self-esteem, improved mood, provided relaxation, and gave them a sense of accomplishment. Overall, the results demonstrated that “there are numerous benefits to horseback riding for people with psychiatric disabilities (p. 381)”. Bizub et al. reported, “Learning to ride a horse is an activity that permits the development of satisfaction that is generally afforded to the
public at large”, and that “the horse became a therapeutic tool that aided in diminishing one’s own sense of being isolated or different (p. 382)”.

Byam and Simmons (2005) described how the unique environment surrounding a hippotherapy setting can be used along with activity to reach therapeutic goals. For example, adults can participate in activities that promote the development of skills such as strength, balance, eye-hand coordination, and motor planning. They can achieve this through activities such as scavenger hunts and basketball games. Participating in a scavenger hunt activity will ultimately increase awareness of the environment and focus on sequencing skills, attention span, and cognition. Playing a game of basketball while atop a horse can increase strength, balance, and eye-hand coordination during age appropriate play.

Client Qualifications

Before one can participate in hippotherapy treatment, there are criteria that must be met in order to ensure safety. The pelvis must be wide enough to straddle the horse comfortably (Delinger & Cummins, 1997). The pelvis is usually wide enough at about 3-4 years of age. The individual must also be able to follow directions before they are considered for hippotherapy. Prior to treatment, several measurements need to be documented. These include strength, balance, and range of motion. The areas addressed in hippotherapy are determined based on the evaluation findings and an individualized hippotherapy program needs to be designed.

Contraindications

There are certain contraindications that must be considered prior to implementing hippotherapy treatment. Contraindications involving the area of orthopedics include,
spinal fusion, unstable spine, pathologic fractures, acute arthritis, severe osteoporosis, acute herniated disc, and history of hip dislocation. Contraindications specific to neuromusculoskeletal problems include uncontrollable seizures, disruptive behavior; exacerbation of multiple sclerosis, complete quadriplegia, inability to sit independently, lack of head control, and significant tone in hip adductor muscles and internal rotator muscles. Other contraindications to hippotherapy treatment include disruptive behaviors, hemophilia, open pressure sores, detached retina, and individuals taking anticoagulant medications (Meregillano, 2004).

Program Considerations

There are several requirements that must be met prior to using hippotherapy as a treatment tool. These requirements include attendance at a minimum of one American Hippotherapy Association-approved workshop, and being a certified NARHA instructor or have a certified instructor assisting with all treatment sessions. Occupational therapy practitioners should also have a strong clinical background in traditional occupational therapy interventions, along with horseback riding skills. They must understand the nature and biomechanics of a horse and the dynamic relationship that is shared between a horse and a rider (Byam & Simmons, 2005; Meregillano, 2004;)

It is important that licensed and credentialed therapists work together with professional horse handlers and certified riding instructors to screen all horses that will be used in hippotherapy. Hippotherapy centers must also follow certain organizational standards to maintain a safe and therapeutic environment for riders. First, a licensed and credentialed therapist that has treatment background in posture, movement, neuromotor functioning, and sensory processing should plan and implement hippotherapy. Second,
therapists should work together with professional horse handlers and certified riding
instructors to select horses for individuals that are screened and specially trained. Last,
the therapist is responsible for directing the movement of the horse and maintaining
direct contact with the rider while assessing and modifying treatment based on the rider’s
response (Millhouse-Flourie, 2004).

*Therapy Horse Characteristics*

There are several physical characteristics that are ideal when screening a horse to
be used for hippotherapy. According to Spink (1993), the ideal size of a therapy horse is
57.2 inches to 61.2 inches from the ground to the withers of a horse. This height works
well with various handling techniques and allows the therapist and assistants to easily
support the client from the ground.

By simply visually assessing a horse, one can gain information regarding the
general health of a horse. Observations of the hair and coat, skin muscling, alertness and
responsiveness, general demeanor, and overall continuity of form and movement from
the front to the rear of the horse allows one to gain insight of neurologic functioning and
biomechanical function (Spink, 1993).

When visually assessing balance and proportion it is helpful to break the horse’s
body into three sections, one-third neck, one-third midsection, and one-third hindquarters.
These sections, as well as the legs from top to bottom, should appear proportional while
standing still and while walking. The anterior and lateral view of the legs should be
assessed for their ability to weight bear and tolerate stress. It is not necessary for the legs
to be completely parallel to function effectively (Spink, 1993).
It can be difficult to find quality horses for hippotherapy programs. The goal in selecting horses for the program is to find ones that provide good symmetrical input, or that are capable of “walking up under themselves.” According to De Gutis (2003), a horse accomplishes this when its back foot steps in the same place the front foot just was.

The Equine Movement Performance Instrument (EMPI) is a screening instrument that is used to objectively screen potential therapy horses. The screen is divided into four parts: observations from the ground, mounted performance, observations from the ground, overall impression, and bilateral neck flexibility test (Spink, 1993).

**Referrals and Reimbursement**

According to Delinger and Cummins (1997), clients must have a physician’s referral to participate in Hippotherapy. Many physicians are unaware of the benefits of hippotherapy. Therefore, many of the referrals are the result of parent/caregiver requests for physician orders.

After the referral, depending on the type of plan, insurance may cover hippotherapy treatment. There are no specific Current Procedural Terminology (CPT) codes for hippotherapy, but it may be billed under existing CPT codes. CPT codes typically used for hippotherapy billing include: therapeutic procedure/exercise (97110), neuromuscular re-education (97112), therapeutic activities (97530), development of cognitive skills (97532), and Sensory Integration (97533) (American Hippotherapy Association, n.d.). According to J. Gemmill (personal communication, November 18, 2005), when documenting hippotherapy treatment therapists should refrain from documenting the word “horse”, and instead refer to the horse as a “dynamic moving surface”.

14
**Treatment**

Hippotherapy treatment begins with an occupational therapy initial evaluation, followed by progress notes, and periodic re-evaluations. Typically insurance companies require re-evaluations at 3-6 month intervals. Hippotherapy is a closely supervised treatment involving stretching, strengthening, and balance activities. During treatment the client does not control the horse and may be in prone, supine, or lying positions on the horse. The horse’s walk is used to influence the postural and motor control reactions in clients with disabilities. Most clients are active, working participants during hippotherapy treatment, which is vital for success in any therapeutic intervention. However, clients that sit passively in the riding position also experience benefits such as lateral, anteroposterior, and rotational movements of the pelvis and trunk that facilitates dynamic muscle function. Hippotherapy can be used by occupational therapists to offer purposeful activity that is meaningful to the client (Bracher, 2000).

Occupational Therapists have many options for treatment. De Gutis (2003) provides several ideas, such as instructing patients to ride with their hands on top of their heads or to ride with their arms reaching out to their sides in order to improve balance and coordination. To improve trunk strength, therapists can instruct patients to stand up in stirrups or perform sit-ups atop the horse. Pushing ones hands into the horse’s neck provides sensory input through the patient’s hands all the way through the patient’s feet if they are standing in the stirrups. Therapists also have the option to change the horse’s stride to provide different degrees of sensory and motor experiences for the patients. They can even change horses all together, which will provide a change in sensory input for riders, because each horse has its own unique movement pattern.
Therapists need to adjust treatment according to the patient’s specific diagnosis and symptoms. If a patient has a diagnosis of cerebral palsy, the therapist may try to increase the movement in the pelvis by utilizing long, straight walks with the horse. Patients’ who have diagnoses such as Down’s syndrome tend to have joints that more mobile that normal. Treatment for these individuals may consist of increased stopping and starting, as well as walking in circles (serpentes) to increase activity in the child’s trunk (Delinger & Cummins, 1997).

Occupational therapists can also incorporate activities into treatments sessions, such as basketball or relay races on horseback. These are especially rewarding to individuals with disabilities, as they are often unable to keep up with their peers in these fast moving activities. Children who are unable to start and stop their movements on the ground have new success at playing games such as Red Light, Green Light. They are able to use the horse as an aid to inhibit and facilitate movement (De Gutis, 2003).

Theory

A treatment model is beneficial in developing a hippotherapy program because it provides guidelines for therapists throughout the therapy process. According to Byam and Simmons (2005), the Person-Environment-Occupation (PEO) Model allows the therapist to view the client holistically and consider all aspects of client-centered intervention. It also encourages therapists to consider the relationships of individual factors of the person as they apply to each other.

The PEO Model focuses on the relationship between the person, the environment, and the occupation. It is based on the premise that one’s occupational performance results from engagement in purposeful tasks and activities within the environment and
that the greater the overlap between the person, environment and occupation, the greater the occupational performance (Byam & Simmons, 2005).

Through the use of the PEO model to guide hippotherapy intervention clients are able to reach their goals through interaction with a unique environment that is motivating to the client. Giving the client the “just-right challenge” during therapy gives him/her a sense of accomplishment and increases each person’s self-esteem, which enhances occupational performance. Interacting with a horse on a personal level often increases the client’s motivation and level of alertness. Skills learned in the hippotherapy environment can be easily carried over into the client’s natural environment. Occupational benefits include enhanced social skills and improved ability to follow directions, control one’s behavior, and interact with others in an appropriate manner (Byam & Simmons, 2005).

Chapter two provided an extensive review of hippotherapy literature. It identified the history of hippotherapy and described current hippotherapy research with various populations. Considerations for developing a hippotherapy program were discussed including the therapy horse characteristics, referral and reimbursement process, and treatment strategies. Chapter three will describe the process used in designing the protocol, including an overview of the protocol.
CHAPTER III

METHOD

The product was developed to offer a set of guidelines for occupational therapists to consider and address during the development of a hippotherapy program. In relationship to the literature and knowledge base, the product includes current effective therapeutic strategies for children and adults, indications and contraindications of hippotherapy, and diagnoses that have had proven gains from hippotherapy. Also, the product refers to screening instruments to be used on horses and the therapist’s overall competencies that were found in the literature. Web resources were used to gather current information on the budget, billing, and liability issues for the product.

An extensive literature review was conducted to gain understanding of the current literature and outcomes of hippotherapy intervention, and to identify key considerations when developing a hippotherapy program. Information was gained through current evidence-based practice, internet websites, and books. Additional information was obtained by interviewing an occupational therapist who developed and is currently running a successful hippotherapy program in the area.

The literature suggests a lack of the utilization of hippotherapy with the adult population. A hippotherapy program can have high start-up costs if many resources (i.e. horses, horse handlers, facilities, etc.) aren’t already readily available.
Chapter IV provides an introduction to the created product. It includes information regarding its purpose, what it entails, and the model that was followed during its development.
CHAPTER IV
PRODUCT

The purpose of this project was to create a protocol to guide development of an occupational therapy based hippotherapy program for individuals of all ages. An extensive literature review was conducted to identify current literature and outcomes of hippotherapy intervention, describe indications and contraindications, and identify key considerations in developing a hippotherapy program. The following consists of key points of the hippotherapy protocol as well as a brief description of each point.

1. Introduction:
This section defines hippotherapy and states how hippotherapy can be used as an occupational therapy treatment strategy. This section informs the reader of what can be expected throughout the hippotherapy protocol and provides a brief description of what each area addressed will include. Last, this section identifies the model that was chosen for this project.

2. Facilities and Equipment:
This contains a description of the facility requirements for indoor and outdoor arenas. This section also contains a list of equipment that should be considered when developing a hippotherapy program for occupational therapy.

3. Horses:
Included in this section is a description of how to obtain therapy horses. It lists several therapy horse characteristics that should be taken into consideration when assessing the
horse. These include both physical characteristics and behavioral characteristics.
Screening tools commonly used on potential therapy horses are identified with key points of what is evaluated in each assessment.

4. Personnel:
A team of professionals comprises the hippotherapy team. This section identifies the key members of the hippotherapy team as well as a network of professional exchanges. The contributing factors and roles of each member in the network of professional exchanges are described. Last, the types of certifications that can be obtained to practice hippotherapy and a list of screening tools to self assess professional competencies is described in this section.

5. Clients:
This section indicates what criteria must be met for an individual to participate in hippotherapy. Included is a HIPAA release form and an initial client profile form. Indications and contraindications including a list of diagnoses and client factors are included.

6. Treatment Programming:
During hippotherapy treatment, certain strategies are utilized. This section describes these strategies that can be used with adults and children in relation to the Person-Environment-Occupation model.

7. Legalities:
Described in this section are various options for liability insurance that can be obtained for a hippotherapy program. These options include limited liability insurance, professional liability insurance, and business liability insurance.
8. Budgets and Billing:

The estimated startup costs for implementing a hippotherapy program are described in this section. These startup costs will vary depending on many factors, such as the region the program is implemented in, whether or not the program will be run year round, whether the facility is rented or privately owned, etc. The documentation and billing process is also described in this section.

9. Contacts:

This section includes a list of associations that can be contacted for more information on hippotherapy and questions.

The complete protocol can be found in the appendix. Chapter V will summarize the purpose of the project, key information found throughout the process, and recommendations for future work.
CHAPTER V

SUMMARY

The purpose of this project was to create a protocol to guide development of an occupational therapy based hippotherapy program for individuals of all ages. The protocol was created following an extensive review of literature to identify current literature and outcomes of hippotherapy intervention, describe indications and contraindications, and identify key considerations in developing a hippotherapy program.

There were limitations to this project. One limitation was the lack of research available on hippotherapy in general. More specifically, the research that is available is primarily conducted on children with disabilities. There is also little information available on hippotherapy with the adult population due to lack of research conducted on this population.

Information obtained in this product will be shared with therapists practicing in hippotherapy. A copy of this project will specifically be given to an occupational therapist who assisted the authors in gaining information on hippotherapy and who currently owns and operates a hippotherapy program.

More research studies on the effects of hippotherapy with all populations, especially the adult population, are recommended for future studies. Feedback should be obtained from users of this protocol and any feedback attained will be incorporated in future revisions of the product. There is evidence to support that hippotherapy intervention is an effective adjunct to occupational therapy treatment. Research indicates
that there are significant benefits for individuals who participate in hippotherapy treatment. The proposed occupational therapy protocol would be a beneficial tool when developing a hippotherapy program.
REFERENCES


APPENDIX
A Hippotherapy Protocol For Occupational Therapists

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# Table of Contents

<table>
<thead>
<tr>
<th>Content</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Facility and Equipment</td>
<td>3</td>
</tr>
<tr>
<td>Horses</td>
<td>5</td>
</tr>
<tr>
<td>Personnel</td>
<td>9</td>
</tr>
<tr>
<td>Clients</td>
<td>13</td>
</tr>
<tr>
<td>Treatment Programming</td>
<td>17</td>
</tr>
<tr>
<td>Legalities</td>
<td>18</td>
</tr>
<tr>
<td>Budget and Billing</td>
<td>19</td>
</tr>
<tr>
<td>Contacts</td>
<td>22</td>
</tr>
<tr>
<td>Initial Client Profile</td>
<td>23</td>
</tr>
<tr>
<td>HIPAA Release</td>
<td>26</td>
</tr>
<tr>
<td>References</td>
<td>27</td>
</tr>
</tbody>
</table>
Introduction

Hippotherapy is a treatment strategy that utilizes equine movement to achieve functional outcomes. While the patient is mounted on the horse the therapist guides the movements of the horse, while evaluating the patient’s responses. Treatment is adjusted accordingly to the patient’s responses (The American Hippotherapy Association, n.d.). Occupational therapy uses hippotherapy as a way to engage patients in meaningful and challenging activity. By modifying the horse’s movements, neurological function and sensory processing are improved. The purpose of this product is to create a protocol for occupational therapists to follow while developing a hippotherapy program at a rehabilitative facility.

The hippotherapy treatment protocol will offer a set of guidelines that need to be considered and addressed during the development of a hippotherapy program. Areas addressed include the following:

- **Facilities and Equipment** – This section addresses what type of facility is needed, and what specific equipment is needed throughout the treatment process.

- **Horses** – This section includes different ways to access horses, and assessments that can be used to determine appropriate therapy horses.

- **Personnel** – This section includes what therapists, horse handlers, and volunteers that are needed, specific certifications that need to be met, and therapist screening instruments.

- **Clients** – This section provides referral sources, contraindications/indications, and a client profile.

- **Treatment Programming** – This section includes treatment strategies that can be
used with adults and ones that can be used with children.

- **Legalities** – This section includes different liability issues that need to be considered. Budget will address expected costs for the start-up of a program, and costs to run the program.

- **Budget and Billing** – This section includes an estimated budget that will be needed to start a program and what billing codes can be used for reimbursement.

- **Contacts** – This section includes a list of email addresses and contact information for more information on hippotherapy and questions.

The theory chosen for this project is the Person-Environment-Occupation model. This model allows the therapist to view the client holistically. Occupational therapists establish which interventions are motivating to the client. Hippotherapy allows clients to reach their goals through an unique environment. It also gives clients a sense of accomplishment and increases self-esteem, which can lead to an increase in occupational performance. The PEO model focuses on the importance of interactions among occupations that are motivating and the client’s interests.
Facilities and Equipment

Facility Requirements

The size of the indoor or outdoor arena should be at least 25 x 45 meters. Any fencing should be solidly built with well-secured gates. Footing in the arena should have a clay base with several inches of sand, blue dust, or sawdust layered over it. Weeds, rocks, manure, puddles, and uneven ground should be taken care of as soon as possible so they don't create a problem during the therapy session (Spink, 1993).

Indoor arenas should have good ventilation and protective kickboards lining the borders of the walls. Outdoor arenas should be in an open area with little of no opportunity for unexpected occurrences. The arena should be in an area with minimal distractions and away from things that could possibly spook the therapy horse (i.e. dogs, loud noises, the client’s siblings playing).

Equipment Needed

Equipment should be considered in terms of purpose, quality and condition, comfort, proper fit, and safety. Spink (1993) lists basic equipment needed, it includes:

- Leather or nylon halters
- Cotton lead ropes
- Leather bridles with mild snaffle bits and quick-release reins
- Girths
- Bareback pads
- Side-reins
- Canvas lunge line
- Lunge whips
• Safety stirrups and other special adaptive or safety equipment necessary to promote well-being and risk management

• Safety helmets (all sizes)

• Grooming equipment: brush, rubber curry, mane and tail combs, sponges, sweat scrapers, leather oil, etc.

• Fly sprays (natural, nonallergic-types)

• OT Equipment for therapy (games, toys, balls, rings, cones, etc.)
Horses

Horse owner and professional horse dealers often donate horses to therapeutic riding programs. Many owners donate horses to take a deduction on their taxes. When starting a therapeutic riding program horses are donated, volunteered, or leased by horse owners in the community. When leasing a horse the therapist and individual leasing the horse must come to an agreement on what the cost will be to lease the horse. Therapists also have the option of simply purchasing horses at auctions to be used with hippotherapy.

Often times horse dealers may donate horses that are unsalable, unusable, and/or unsound animals. Owners may find this to be a good solution for these horses and hope to take a tax deduction. That’s why one must be selective when determining what horses to use. Ways to ensure this include veterinarian’s examinations/evaluation, screenings, and thorough observations. It is extremely important that a therapist work together with professional horse handlers and certified riding instructors to screen all horses that will be used in hippotherapy.

Therapy Horse Characteristics

The horse should be observed while walking, trotting, and cantering, and ridden to view and feel the rhythm of its gait and its overall balance. Characteristics that should be taken into account while assessing the horse include:

Physical Characteristics

- Size – The ideal size of a therapy horse is between 14.3 hands and 15.3 hands. Size is important to take into consideration because the therapist and volunteers need to be able to reach their clients in order to support them while mounted on
the horse. If the horse is too tall, therapists and volunteers may injure themselves (J. Gemmill, personal communication, November 18, 2005).

- **Horse hair coat** – The coat should be shiny and healthy.

- **Skin and muscling** – The horse should be functionally correct and balanced in physical structure.

- **Overall continuity of form and integrity of movement** – The horse should be functionally correct in movement.

- **Proportions** – The horse can be divided into three parts. It should be 1/3 neck (from the ears to the front of the scapula), 1/3 midsection (from behind the scapula to the front of the hips), and 1/3 hindquarters (from the front of the hips to the buttocks).

- **Strength** – The horse should be strong enough to safely carry two people if necessary.

- **Age** – The horse should be between the ages of 8 -10 years old. Older horses tend to be calmer than younger horses.

- **Sex** – Mares and geldings are both suitable, but it is important to take into consideration a mare’s cycle. When mares are “in heat” their temperament tends to become very anxious and distractible.

- **Breeds** – Some breeds most suitable for therapy include Thoroughbreds, Quarter Horses, Morgans, Paints, Appaloosas, and Warmbloods, and Norwegian Fjords (Spink, 1993; J. Gemmill, personal communication, November 18, 2005).

**Behavioral Characteristics**

- The horse’s overall general demeanor.
• The horse’s level of alertness and responsiveness.

• The horse’s general level of trust and respect for the handler.

• The horse’s consistency in complying in an obedient, cooperative manner.

• The horse’s consistency in responding to training for controlling flight or fight responses.

• The horse’s ability to tune in and become responsive to select stimuli, such as cues from the therapist.

**Screening Tools for the Horse**

Two screening tools commonly used on potential therapy horses are The Equine Movement Performance Instrument (EMPI) and The New Harmony Equine Behavioral Profile System (EBPS) (Spink, 1993). The score sheets of these screening instruments provide a permanent record for the therapy horse.

*The EMPI evaluates:*

• Observations from the ground

• Mounted performance: observations from the ground

• Overall impression

• Bilateral neck flexibility test

*The EBPS evaluates:*

• Ability to assimilate objects

• Position changes

• Backriding techniques
To use these screening instruments on potential therapy horses, and obtain the reproducible score sheets please refer to “Developmental Riding Therapy: A Team Approach to Assessment and Treatment” by J. Spink (1993).
**Personnel**

The hippotherapy team consists of the therapy horse, the client, a therapist, a horse handler, and volunteers. One individual may assume more than one role, but a typical therapy session is usually carried out with a horse handler, and therapist, and side-walkers that assist to assure patient safety. The head therapist is responsible for overseeing the entire session.

A network of professional exchanges is important in a hippotherapy program. The roles of the team members include:

- *Occupational therapists* – They contribute to the team by making sure that the client maintains good postural alignment through all positions and gait changes. They interpret evaluation results and ensure that the goals of the session are developed to meet the therapeutic needs of each individual client.

- *Speech language pathologists* – They contribute to the team by focusing on the client’s communication skills with others and the therapy horse. This allows for the client to further develop pragmatic skills.

- *Physical therapists* – They contribute to the team by helping the client achieve trunk control while their pelvis is moving on the horse’s multidimensional walking motion, and overall motor control.

- *Horse handler/Volunteers* – They can be used as safety spotters and walk alongside the horse, and also as ring and horse-care personnel. Volunteers and horse handlers help supplement hippotherapy, but they need to be competent and comfortable with horses. They should understand the horse and how to handle
emergencies, should they arise. The will also need to understand the individual patients and their needs.

Hippotherapy centers must also follow certain organizational standards to maintain a safe and therapeutic environment for riders. Therapists should also have a strong clinical background in traditional therapy interventions, along with horseback riding skills (Meregillano, 2004; Byam & Simmons, 2005).

A therapist should exhibit knowledge in basic horsemanship, equine behavior, general horse care, conformation, and demonstrate the ability to ride a horse in all working gaits (walk, trot, and canter). These foundational skills are needed to work comfortably and competently around a therapy horse. Any licensed physical therapist, occupational therapist, speech language pathologist, physical therapy assistant, and certified occupational therapy assistant who posses these skills can practice hippotherapy. Prior to providing hippotherapy, a therapist should attend a minimum of one American Hippotherapy Association (AHA)-approved course and/or be a NARHA registered therapist.

Types of Certifications

- **NARHA registered therapist** – A therapist may become registered after completing the AHA Educational Workshops. The classes, which address equine skills and treatment principles, include three different levels of workshops (Level I, Level II, and Level III). Upon completion of the workshops, a therapist can send an application to NARHA and become a listed NARHA Registered Therapist.
• Hippotherapy Clinical Specialist (HPCS) – A therapist may become certified after practicing for at least three years (6000 hours) with at least 100 hours of hippotherapy practice and upon passing a national examination. This certification process was developed by the American Hippotherapy Certification Board to identify therapists with advanced knowledge about hippotherapy.

The NARHA keeps an overall registry of therapists who have taken AHA-approved courses and have practiced hippotherapy since the completion of the courses. It also requires volunteer and staff records to be maintained. For more information on hippotherapy courses, NARHA registry, and HPCS certification refer to the AHA website at http://www.americanhippotherapyassociation.org.

Screening Tools for Professional Competencies

Screening instruments can be used to for a therapist to self-assess his/her competencies prior to practicing hippotherapy. Three of these instruments include: the Backriding Screening Instrument; the Mounted Skills Screening Instrument; and the Unmounted Skills Screening Instrument.

Backriding Screening Instrument

• Used to determine a therapist’s basic riding ability as they maintain a clients’ security as well as provide treatment.

• Requires two people to ride the horse at once. One person sits in the front (the client) and the other is the backrider (the therapist).

• The therapist needs to demonstrate specific skills concerning riding balance, riding stability, horse knowledge, and riding confidence.
**Mounted Skills Screening Instrument**

- Used as a general indicator of the therapist’s mounted performance.
- Helps to determine an individual’s fundamental level of riding abilities.
- Designed to determine an individual’s mounted strengths and weaknesses while warming-up, walking, trotting, and cantering the horse.

**Unmounted Skills Screening Instrument**

- Used to familiarize the therapist with the level and degree of the knowledge they have and what is needed to practice hippotherapy.
- General areas of knowledge which include conformation and function, horse care, and horse-handling capabilities.
- Areas are tested based on knowledge of conformation and lameness, conditioning, veterinary knowledge, stable management, nutrition, and horse handling capabilities.

To use these screening instruments on potential therapists wanting to administer hippotherapy, and obtain the reproducible score sheets please refer to “Developmental Riding Therapy: A Team Approach to Assessment and Treatment” by J. Spink (1993).
**Clients**

Certain criteria must be met for an individual to participate in hippotherapy. These criteria will help to ensure safety during treatment. They include:

- The pelvis must be wide enough to straddle the horse comfortably (Delinger & Cummins, 1997). The pelvis is usually wide enough at about 3-4 years of age.

- The individual must also be able to follow directions before they are considered for hippotherapy.

All potential clients that meet these requirements should complete, and return with appropriate signatures, a variety of general permission forms that include:

- general release of information,
- physician’s referral,
- medical release,
- liability/premise releases,
- medical emergency release information,
- a Health Insurance Portability and Accountability Act of 1996 (HIPAA) release form (for a sample form see pg. 26), and
- an initial client profile (for a sample see pg. 23). The other forms are available on the North American Riding for the Handicapped Association (NARHA) website at http://www.narha.org.

As with any treatment strategy, there are specific indications and contraindications to using hippotherapy.

**Indications**

The indications of treatment covers specific diagnoses commonly used with hippotherapy and the treatment areas commonly addressed (J. Gemmill, personal communication, November 18, 2005).
Diagnoses

- Cerebral palsy (CP)
- Cerebral vascular accident (CVA)
- Multiple sclerosis (MS)
- Developmental delay (DD)
- Functional spinal curvature (scoliosis, kyphosis, lordosis)
- Sensory integrative dysfunction
- Traumatic brain injury (TBI)

Client Factors

- Abnormal tone
- Impaired balance
- Abnormal reflexes
- Impaired coordination
- Impaired communication
- Impaired sensorimotor function
- Postural asymmetry
- Poor postural control
- Decreased mobility

Contraindications

The contraindications of treatment covers specific diagnoses and treatment areas that are not advised to be treated with hippotherapy (J. Gemmill, personal communication, November 18, 2005).
Diagnoses

- Acute arthritis
- Severe osteoporosis
- Acute herniated disc
- Exacerbation of multiple sclerosis
- Complete quadriplegia
- Down’s syndrome – Due to instability in the cervical spine
- Chiari II malformation with symptoms, disruptive behavior
- Hemophilia
- Open pressure sores
- Detached retina
- Active mental health disorders (fire setting, suicidal, animal abuse, violent behavior)

Client Factors

- Spinal fusion
- Unstable spine (including unstable internal hardware)
- Pathologic fractures
- Atlantoaxial instability
- History of hip dislocation
- Uncontrollable seizures
- Grand mal seizures
- Inability to sit independently
- Lack of head control
- Significant tone in hip adductor muscles and internal rotator muscles
- Disruptive behaviors

When seeking patients for potential referrals, it is recommended to initially speak with case managers in the area. The case managers can in turn speak with parents and then the parents or therapists can contact the physician to request a referral for occupational therapy treatment (J. Gemmill, personal communication, November 18, 2005).
**Treatment Programming**

During hippotherapy treatment certain strategies are utilized. Therapists should use strategies that are age-appropriate and individualized for each particular client. Below is a list of treatment strategies that follow the PEO model and can be used in hippotherapy treatment.

<table>
<thead>
<tr>
<th>Person (Performance Skills/Client Factors)</th>
<th>Environment (Hippotherapy Farm)</th>
<th>Hippotherapy Activity/Task</th>
<th>Areas of Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strength and effort</td>
<td>Safe, structured environment, graded activities</td>
<td>Different positions on the horse, grooming horse</td>
<td>ADL, IADL, Play, Leisure</td>
</tr>
<tr>
<td>Range of Motion</td>
<td>Facilitated and guided by therapist while using equipment</td>
<td>Grooming horse, playing games</td>
<td>ADL, IADL, Play, Leisure</td>
</tr>
<tr>
<td>Posture</td>
<td>Riding/walking on uneven ground</td>
<td>Grooming horse, Riding with gait changes, Reaching tasks</td>
<td>ADL, IADL</td>
</tr>
<tr>
<td>Motivation</td>
<td>Nonmedical environment</td>
<td>Interacting with horses, playing games</td>
<td>Social Participation, Play, Leisure</td>
</tr>
<tr>
<td>Cognition/Problem Solving</td>
<td>Environment provides different challenges</td>
<td>Following directions, Steering horse through cones, sequencing</td>
<td>ADL, IADL</td>
</tr>
<tr>
<td>Social Participation</td>
<td>Welcoming environment</td>
<td>Commanding horse, interactions with horse</td>
<td>Social Participation</td>
</tr>
<tr>
<td>Muscle Tone</td>
<td>Nonmedical environment, input from horse</td>
<td>Weight-bearing activities</td>
<td>ADL, IADL</td>
</tr>
</tbody>
</table>
Legalities

The North American Riding for the Handicapped Association (NARHA) endorsed insurer is Markel-Rhulen. It indicated that hippotherapy has one of the best safety records in the equine industry (NARHA, 2005).

When developing a hippotherapy program liability is a major area that must be addressed. Options for liability insurance include (Allen Insurance Group, 2004):

- **Limited liability insurance** – This is a type of insurance that pays on the behalf of an insured for loss that arose from his/her responsibility due to negligence to others.

- **Professional liability insurance** – Liability insurance to cover professionals, doctors, lawyers, etc. for a loss or expense resulting from a claim on an account of bodily injuries because of any malpractice, error, or mistake committed or alleged to have committed by the individual.

- **Business liability insurance** – This covers the property/business and includes liability for bodily injury, property damage, personal injury, advertising injury, and fire damage (Allen Insurance Group, 2004).

Therapists should attain a provider number which allows them access to insurance and record release. This number is needed in order to bill for services provided. It is also recommended that all patients and family members sign a release of liability form, as well as a HICFA 1500 form. Liability issues vary from state to state. It is recommended that an individual contact’s their states American Hippotherapy Association (AHA) Liaison to find out local information regarding legalities.
**Budget and Billing**

The startup costs for implementing a hippotherapy program will vary depending on many factors. Several factors include the region the program is implemented in, whether or not the program will be run year round, whether the facility is rented or privately owned, etc. Hippotherapy programs require basic equipment for the clients to operate the program and promote safety. The following is an approximate estimate for costs involved of this equipment.

**Estimated Budget**

<table>
<thead>
<tr>
<th>Product</th>
<th>Cost</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liability insurance</td>
<td>Approximately $269.00 per year</td>
<td>Required to run the program and will vary depending upon packages.</td>
</tr>
<tr>
<td>Horse handler/Volunteers</td>
<td>Approximately $50-$60 per week</td>
<td>To care for horses and assist with hippotherapy sessions.</td>
</tr>
<tr>
<td>Arena</td>
<td>Approximately $2,800.00 for a 80’ by 50’ outdoor arena/$100,000 for indoor</td>
<td>Costs will vary depending upon the arena (rented vs. owned, outdoor vs. indoor)</td>
</tr>
<tr>
<td>Helmets</td>
<td>Approximately $50.00 – $60.00 per helmet (one is each size total $300.00</td>
<td>Helmets are required to be worn by the client while mounted on the horse.</td>
</tr>
<tr>
<td>Gait belt</td>
<td>Approximately $6.95 per gait belt</td>
<td>Used during transfers and therapy to ensure safety</td>
</tr>
<tr>
<td>Ramp</td>
<td>Approximately $800</td>
<td>Used when mounting horse.</td>
</tr>
<tr>
<td>Blocks</td>
<td>Approximately $20 and up</td>
<td>Used when mounting horse.</td>
</tr>
<tr>
<td>Computer and software</td>
<td>Approximately $2000 and up</td>
<td>Used for documentation and scheduling.</td>
</tr>
<tr>
<td>Fax machine</td>
<td>Approximately $100 and up</td>
<td>Used for sending and receiving documents</td>
</tr>
<tr>
<td>Table and chairs</td>
<td>Approximately $50 – $150</td>
<td>For parents and caregivers to sit during therapy.</td>
</tr>
<tr>
<td>Item</td>
<td>Price</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------</td>
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<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Lawn chairs</td>
<td>Approximately $50 – $150</td>
<td>For parents and caregivers to sit during therapy.</td>
</tr>
<tr>
<td>Saddle pads</td>
<td>Approximately $20.00 – $50.00 each</td>
<td>For the clients to sit on while riding the horse during therapy.</td>
</tr>
<tr>
<td>Bridle and Reins</td>
<td>Approximately $60.00 and up each</td>
<td>Basic tack for the horse.</td>
</tr>
<tr>
<td>Lead ropes</td>
<td>Approximately $5.00 – $10.00 each</td>
<td>Basic tack for the horse.</td>
</tr>
<tr>
<td>Brushes</td>
<td>Approximately $5.00 – $10.00 each</td>
<td>Basic tack for the horse.</td>
</tr>
<tr>
<td>Lunge line</td>
<td>Approximately $10.00 – $15.00</td>
<td>Basic tack for the horse.</td>
</tr>
<tr>
<td>Horse treats</td>
<td>Approximately $3.00 – $10.00 per container</td>
<td>To give to the horse after therapy.</td>
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<tr>
<td>Horse spray</td>
<td>Approximately $5.00 – $15.00 per bottle</td>
<td>Basic equipment for the horse.</td>
</tr>
<tr>
<td>Bug spray/Sunscreen</td>
<td>Approximately $5.00</td>
<td>For clients to use during therapy.</td>
</tr>
<tr>
<td>Equipment for OT activities</td>
<td>Prices will range depending upon what types of equipment is purchased.</td>
<td>Equipment may include games, toys, balls, rings, cones, etc.</td>
</tr>
<tr>
<td>Storage bins</td>
<td>Approximately $100.00 and up</td>
<td>Used to store tack and therapy equipment.</td>
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</tbody>
</table>

(Horse Tack Supply, 2005; State Line Tack, 2005; & Allen Insurance Group, 2004)

**Billing**

Hippotherapy should be documented in the same manner as any other treatment strategy. A therapist should refer to the movement of the horse in medically relevant terms to reflect how hippotherapy is being used in a specific treatment session. According to J. Gemmill (personal communication, November 18,
2005), when documenting hippotherapy treatment a therapist should refrain from
documenting the word "horse", and instead refer to the horse as a "dynamic moving
surface".

There are no specific Current Procedural Terminology (CPT) codes for
hippotherapy, but it may be billed under existing CPT codes. CPT codes typically
used for hippotherapy billing include:

- Therapeutic procedure/exercise (97110)
- Neuromuscular re-education (97112)
- Therapeutic activities (97530)
- Development of cognitive skills (97532)
- Sensory Integration (97533) (American Hippotherapy Association, n.d.).
Contacts

American Hippotherapy Association
Address: 136 Bush Road Damascus, PA 18415
Website: www.americanhippotherapyassociation.org
Email: info@americanhippotherapyassociation.org
Phone: (888)851-4592

North American Riding for the Handicapped Association
Address: PO Box 33150 Denver, CO 80233
Website: www.narha.org
Email: narha@narha.org
Phone: 1-800-369-7433

Reproducible Forms
Title: “Developmental Riding Therapy: A Team Approach to Assessment and Treatment”
Author: Jan Spink, M.A.
Publisher: Therapy Skill Builders
Copyright: 1993
Phone: (602)323-7500
Initial Client Profile
Date form completed:

Name (First): (MI): (Last):
Legal guardian’s name/relationship, if applicable:

Date of birth: Age: Gender:
Address: City:
State: Zip: Email:
Phone (Home): (Work): (Cell):

Insurance Information:
Name of Carrier:
Policy Holder’s Name:
Policy Holder’s Social Security Number:
Policy Holder’s Date of Birth:
Policy Number:
Group Name/Number:

Health Profile:
Primary diagnosis:

Secondary diagnosis:

Current Health Status:

History of allergies:

History of seizures:

Current Medications: Include current prescription and over-the-counter medications

<table>
<thead>
<tr>
<th>Medication</th>
<th>Date Prescribed</th>
<th>Reason</th>
<th>Side Effects</th>
<th>Physician &amp; Phone number</th>
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</tbody>
</table>
Contraindications:
- Uncontrolled seizures
- Inability to sit independently
- Lack of head control
- Significant hip adduction/internal rotation tone
- Open sores
- Disruptive behaviors
- Hemophilia
- Complete quadriplegia

Comments:

Functional Limitations:

<table>
<thead>
<tr>
<th>ADL</th>
<th>Independent</th>
<th>SBA</th>
<th>CGA</th>
<th>Min</th>
<th>Mod</th>
<th>Max</th>
<th>Total</th>
<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>Bathing/Showering</td>
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<td>Dressing</td>
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<td>Grooming/Hygiene</td>
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<td>Functional Mobility</td>
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<td>Feeding</td>
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<td>Balance</td>
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<tr>
<td>Static Sitting</td>
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<td>Dynamic Sitting</td>
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</tr>
</tbody>
</table>

Range of Motion:

Strength and Endurance:

Tone Assessment:

Rehabilitation Potential:
Environmental Considerations: (Home, School, Work)

Therapy: (Physical, Occupational, & Speech) that are currently being received or that have been received in the past

<table>
<thead>
<tr>
<th>Type of Service (PT, OT, SLP)</th>
<th>Name of Practice</th>
<th>Phone Number of Practice</th>
<th>Name of Therapist</th>
<th>Treatment Start Date</th>
<th>Treatment Discharge Date</th>
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Functional Goals:
Short-term goals:
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

Long-term goals:
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

Therapist Signature

Date
HIPPA Release

I, the participant or legal guardian of a participant hereby give consent and approval to the participation of myself or the participation of my legal ward in any and all activities of the program. I fully understand that participation in the hippotherapy program poses risks of personal injury, property damage, death and/or other loss that may arise while participating in the hippotherapy program. I assume all risk and hazards incidental to the conduct of the hippotherapy program as well as transportation to and from all activities.

This release/authorization shall be effective during the period beginning on (today's date) _______ and continuing through the period that the participant is involved in hippotherapy.

I, the undersigned have read and understand the above statement.
Participant’s Signature: ____________________________ 
Printed Name: ____________________________ 

Date: ____________________________

If participant is a minor, parent/guardian must sign. I am the legal guardian of _______________, (Participant) and I hereby consent to his/her participation. I have read, understand and hereby agree on behalf of myself and Participant to the terms set forth above.
Parent/Guardian’s Signature: ____________________________
Printed Name: ____________________________

Date: ____________________________

I, the participant or legal guardian of the participant hereby give consent and approval that current or past therapists and/or current or past physicians be contacted, as deemed necessary, regarding pertinent treatment strategies as well as pertinent medications.

This release/authorization shall be effective during the period beginning on (today's date) _______ and continuing through the period that the participant is involved in hippotherapy.

I, the undersigned have read and understand the above statement.
Participant’s Signature: ____________________________
Printed Name: ____________________________

Date: ____________________________

If participant is a minor, parent/guardian must sign. I am the legal guardian of _______________, (Participant) and I hereby consent to his/her participation. I have read, understand and hereby agree on behalf of myself and Participant to the terms set forth above.
Parent/Guardian’s Signature: ____________________________
Printed Name: ____________________________

Date: ____________________________
References


