If you are viewing this course as a recorded course after the live webinar, you can use the scroll bar at the bottom of the player window to pause and navigate the course.

This handout is for reference only. Non-essential images have been removed for your convenience. Any links included in the handout are current at the time of the live webinar, but are subject to change and may not be current at a later date.
Technical issues with the Recording?

- Clear browser cache using these instructions
- Switch to another browser
- Use a hardwired Internet connection
- Restart your computer/device

Still having issues?

- Call 866-782-9924 (M-F, 8 AM-8 PM ET)
- Email customerservice@OccupationalTherapy.com
Introduction to hippotherapy for occupational therapy practitioners.

Created and presented by:
Gina Taylor, MS, OTR/L, HPCS

There is something about the outside of a horse that is good for the inside of a man.

~Winston Churchill

With Permission from AHA, Inc.
Learning Outcomes

1. Describe the term hippotherapy as an occupational therapy treatment tool
2. Recognize the way hippotherapy can be applied to the three categories of intervention as defined by the OTPF3
3. List three practitioner qualifications for certification

Hippotherapy: current description

- The term hippotherapy refers to how occupational therapy, physical therapy, and speech-language pathology professionals use evidence-based practice and clinical reasoning in the purposeful manipulation of equine movement to engage sensory, neuromotor, and cognitive systems to achieve functional outcomes. In conjunction with the affordances of the equine environment and other treatment tools/strategies, hippotherapy is part of a patient’s integrated plan of care.
Hippotherapy as part of a plan of care

Hippotherapy is a treatment tool that is used in conjunction with other tools and strategies employed by occupational therapists.

Best practice of incorporating hippotherapy into an OT plan of care includes treatment in a clinic, home, or community setting to focus on functional carryover.

Hippotherapy should not be used as an exclusive tool.
Hippotherapy as a treatment tool in occupational therapy

What are the benefits of using equine movement in Occupational Therapy?

Changes can be seen in client factors:

- Balance
- Body awareness
- Multi-sensory processing
- Righting reactions
- Motor planning
- Postural alignment, stability and security
- Mobility
How does hippotherapy work?

- The use of hippotherapy is based on dynamic systems and motor learning theory.
- It also relies on the treatment principles for neurodevelopmental treatment and sensory integration theory and treatment.

Motor Learning Principles

- Provides hundreds of practice opportunities
- Requires continuous problem solving
- Variability of practice
Neurodevelopmental Treatment Principles

- Continual facilitation and inhibition is provided by carefully graded equine movement
- The horse promotes symmetrical postural alignment
- The horse promotes movement disassociation within the context of active movement
- The horse provides a rhythmic, repetitive, symmetrical, bilateral, weight shift, and heightened feedback on midline orientation

Sensory Integration Principles

- Provides opportunities for enhanced sensory processing and modulation in the context of a meaningful activity
- The therapist grades vestibular, proprioceptive, tactile, and visual flow to normalize sensory processing
- Allows for a just right challenge
Treatment ideas addressing the child with mild hypotonia

- A horse with a active gait, increased concussion, and good adjustability would be selected; however, a narrow or medium base of support may be chosen if there are hypermobility concerns.
- Movement begins in anterior/posterior planes to balance flexor/extensor tone.
- If client presents with decreased extensor tone and kyphosis with posterior pelvic tilt, alternative positioning may be used.
- GOALS: may include increasing access to play environment, increasing endurance to keep up with peers, and improving motor planning for dressing and self help skills.

Treatment ideas addressing the child with sensory processing deficits

- Selection of the equine movement is of particular importance to provide appropriate vestibular, proprioceptive and tactile input.
- Stirrups can be added to increase active proprioception
- The equine environment provides multi-sensory input, consider the environment
- Changes in pace, direction, positioning, and vertical displacement can increase vestibular input.
- Monitor signs of over-stimulation
- GOALS- improving self regulation to engage in peer play and improving body awareness to enhance self care skills.
Treatment ideas addressing the child with hypertonia

- Selection of the equine movement to provide smooth rhythmic movement with decreased concussion and good adjustability.
- Width of base of support is particularly important. A base of support that is too wide will often produce posterior pelvic tilt and may increase spasticity.
- Alternative positions such as prone and supine can be used to elongate shortened muscle positions.
- Stretching prior to transitioning onto the horse and improve pelvic positioning.
- GOALS- to address modulation of tone to improve motor planning for self care and play skills.

How this tool fits into the Occupational Therapy Practice Framework

- Evaluation
- Intervention
- Outcomes
Evaluation and Intervention

Who can benefit from occupational therapy using equine movement and the environment?

- Common diagnosis include:
  - Autism Spectrum Disorders or Pervasive Developmental Delay
  - Cerebral Palsy
  - Cerebral Vascular Accident (stroke)
  - Traumatic Brain Injury (TBI)
  - Spina Bifida
  - ADD/ADHD
  - Genetic disorders
  - Sensory Processing Differences
  - Mental health diagnosis
  - Occupationally deprived or those who would benefit from wellness programming
Evaluation

- Developing an occupation profile
  - Through interview or clinical observation prior to beginning treatment
- Analysis of occupational performance
  - Should include use of standardized measures
  - Must include a mounted portion
  - Collaborate with families and clients on goals (why are you coming to this clinic for therapy)

Evaluation

- Consider why this client is interested in having the horse incorporated into their occupational therapy sessions?
- What makes the benefits involved outweigh the greater risks?
- Explain the risks to the family.
What are the risks?

- Risks include falling off the horse causing injury or death
- Sudden movements causing whiplash
- Getting stepped on
- Allergic reactions
- If a horse is frightened or provoked it may divert from its training and act according to its natural survival instincts which may include, but are not limited to stopping abruptly; spinning around; changing directions and/or speed at will; shifting its weight; bucking; rearing; kicking; biting; and/or running from danger.

Evaluation considerations

- There is a comprehensive list of precautions and contraindications through PATH Intl.
- Use your clinical judgment to determine if this is the safest treatment setting that will allow you to meet goals
- Consider your team. What types of clients do you have expertise with? What can your facility, horses, therapy aides, etc. reasonably assist with?
- Do not be afraid to say “no” or “not now” to families seeking services.
Precautions and Contraindications

- Not everyone can benefit. Certain conditions make equine movement detrimental, the equine environment unsafe, or increase the risks associated with this treatment tool.
  - These include:
    - Compromised head control
    - Uncontrolled seizures
    - Unsafe behavior (running/wandering, fire setting, animal abuse)

Great, what age can we start?

- Whoa! Hold your horses. Children under three years old should be seen by an experienced clinician that has experience with the EI population and is HPCS certified.
- The movement of the horse is a powerful tool and the movement may cause micro-trauma in young, developing musculoskeletal systems.
- Consider this when evaluating developmentally delayed children.
What about sitting balance?

- Clients do not necessarily need independent sitting balance, in fact this is often a goal.
- Children can be placed in positions that develop independent sitting balance.
- Adults should have independent sitting balance as their size may compromise safety.
- Be aware of other conditions that may impact sitting balance, including seizures, medications, and pain.

Can’t someone sit behind them?

- If head control or sitting balance is limited, a parent may ask if someone can sit behind their child, but there are some things to consider about tandem hippotherapy.
  - Tandem hippotherapy is significantly more dangerous for the client, backrider, horse, and therapy team.
  - Tandem hippotherapy has humane treatment implications to the horse as our partner and is a precaution.
  - There is a variety of adapted equipment that can replace the need for a backrider.
  - The client is likely to make no or slow progress as the client typically leans into the backrider. The backrider typically over-supports the client secondary to accommodating to the dynamic base of support.
  - Often, if a client waits 6 months to a year, hippotherapy may be more appropriate and safe to be included in their plan of care.
I saw a child who couldn’t walk
Sit on a horse, laugh and talk...
Then ride it through a field of daisies
and yet he could not walk unaided.
I saw a child, no legs below,
sit on a horse, and make it go
through woods of green
and places he had never been
to sit and stare - except from a chair.
I saw a child who could only crawl
mount a horse and sit up tall.
Put it through degrees of paces
and laugh at the wonder in our faces.
I saw a child born into strife
Take up and hold the reins of life
and that same child was heard to say
“Thank God for showing me the way...”

-John Anthony Davie

Intervention Approaches- how to explain the use of hippotherapy to our colleagues

- **Create, Promote**- The horse may be used to promote social skill development with the OTP as a facilitator or create an opportunity for leisure exploration and participation after discharge in an adaptive riding program.

- **Establish, Restore**- This is the main area most OTP address. Movement of the horse is used to establish the motor or sensory skills to engage in occupational performance.

- **Maintain**- Occupational therapy may help a client maintain skills needed for independent functioning. The use of hippotherapy may provide a motivational component to maintain skills.

- **Prevent**- Equine movement can be graded to help prevent deformity, performance skill limitations, and occupational deficits.
Categories of interventions

- Preparatory Methods
  - When the horses’ movement is used to decrease spasticity, provide vestibular input, or a weightbearing surface for the client

With Permission from AHA, Inc.

******

Categories of Intervention

Purposeful Activity: Sitting astride allows the client to practice sitting balance and righting reactions
OT sessions may incorporate play or pretend scenarios

With Permission from AHA, Inc.
Categories of Intervention

- Occupation Based
  - Working with and riding horses may be occupation based for an equestrian with a disability
  - Play is the occupation of children and many children see OT as fun!
Evidence Based Practice

- Due to confusion in the use of terms, it is often hard to assess research material.
  - Adaptive/therapeutic riding is a riding lesson taught by a riding instructor. Compare this with a therapist trained in the use of hippotherapy and you may understand the difference in outcomes.
  - Many research studies did not differentiate between adaptive/therapeutic riding and hippotherapy.
  - Some studies used their own terminology: equine therapy, horseback riding therapy, etc.

What's the difference

**Hippotherapy**
- Completed by licensed therapy professional (OT, OTA, PT, PTA, or Speech Therapist) in conjunction with a professional horse handler
- Direct hands on participation by therapy practitioner at all times
- The horse's movement is essential to assist in meeting therapy goals.
- The goal of OT is to improve occupational performance.
- Hippotherapy is one tool incorporated into the clients' plan of care.
- The therapy practitioner is continually assessing the client, treatment tools used and progress toward goal attainment and discharge.

**Adaptive Riding**
- Completed by horseback riding instructor in conjunction with volunteers
- Occasional hands on assistance by riding instructor and/or volunteer, with instructor primarily teaching from center of arena.
- The horse's temperament is essential to learn riding skills
- In adaptive riding, the individual is often taught riding lessons in a group format, which runs in "sessions." The instructor must respond to the group as a whole, in addition to fostering individual success.
- In adaptive riding, focus on emphasizing proper riding position and rein skills.
Evidence Based Practice


PURPOSE: The purpose of this study was to determine whether hippotherapy has an effect on the general functional development of children with cerebral palsy.

RESULTS: One-way analysis of variance of group mean scores with repeated measures was significant (p < 0.05) for all PEDI subscales and all GMFM dimensions except lying/rolling. Post hoc analyses with the Tukey test for honest significant differences on the PEDI and GMFM total measures as well as GMFM crawling/kneeling and PEDI social skills subtests were statistically significant between pre-test 2 and post-test 1.

CONCLUSIONS: The results of this study suggest that hippotherapy has a positive effect on the functional motor performance of children with cerebral palsy. Hippotherapy appears to be a viable treatment strategy for therapists with experience and training in this form of treatment and a means of improving functional outcomes in children with cerebral palsy.

Evidence Based Practice


PURPOSE: 12 week speech therapy session using hippotherapy with 15 children on the autism spectrum. Attention and communication behaviors were measured at the beginning of therapy and following the last hippotherapy session.

RESULTS: CARS scale did not show change, however all 15 children improved in at least one of the four subtests. 91.8% (average) of session goals were met. Improvement of 13/15 relating to people, 9/15 listening behaviors, 10/15 verbal communication and 10/15 non-verbal communication.
OT Evidence Based Practice


Types of Outcomes

- **Occupational performance**- Improving deficits and meeting functional goals
- **Client satisfaction**- Tracking results through pre/post tests including use of the COPM
- **Health and wellness**- Focus on improving patients overall health and wellbeing
- **Prevention**- Address unhealthy routines and develop active lifestyles to prevent declines in health
- **Quality of life**- Incorporating equines into a treatment plan may increase the quality of life for the patient and family. Patients enjoy interacting with the horse and feel a sense of freedom and empowerment. OT addresses self concept, health, functioning and progress towards the patients’ goals.
Practitioner Qualifications

Qualification for treatment

- There are no state laws regarding incorporating equine movement or the equine environment into OT
- The American Occupational Therapy Association (AOTA) recognizes the use of the movement of the horse (hippotherapy) as an intervention tool as long as it is based on an appropriate occupational therapy evaluation, treatment plan, and goals, and assists in achieving the appropriate functional outcome. The occupational therapy practitioner using the movement of the horse also should be specifically trained in the use of this tool.
- PATH centers have standards regarding the qualifications and supervision of therapists working at accredited facilities
- Any therapist considering entering the Equine Assisted Therapy field should want to gain a solid background in equine behavior, anatomy and movement, and riding skills
Purpose of Certification

To promote delivery of safe and effective treatment which incorporates hippotherapy through the certification of qualified therapists, therapy assistants, and clinical specialists by:

1. Recognizing formally those individuals who meet eligibility requirements of the American Hippotherapy Certification Board and pass either the Hippotherapy Certification Examination or the Hippotherapy Clinical Specialist® Certification Examination
2. Encouraging continued professional growth in the use of hippotherapy within professional practice.
3. Establishing and measuring the level of knowledge required for certification in hippotherapy.
4. Providing a standard of knowledge requisite for certification, thereby assisting the employer, public, and members of the health professions in the identification of therapists certified in hippotherapy or the Hippotherapy Clinical Specialist®.

AHCB Certified in Hippotherapy:

Hippotherapy Clinical Specialist (HPCS)- is a designation of therapists who have advanced knowledge and experience in hippotherapy. For physical therapists, occupational therapists, and speech and language pathologists who have been practicing their profession for at least three years (6,000 hours) and have 100 hours of hippotherapy practice within the three years prior to application. Application fees apply, and a multiple-choice examination must be passed.
Interested?

- Clinicians should have a sound horsemanship knowledge or be willing to gain one through riding lessons and clinics with experienced horse persons
- Clinicians should understand the benefits, dangers, and limits of incorporating horses into their practice
- Clinicians should engage in the mentor/mentee process when beginning to incorporate horses into their OT practice

Fieldwork Opportunities

College and university programs have fieldwork affiliations with facilities that include hippotherapy as a treatment tool.

For a Level II placement, it is recommended that students be in their final fieldwork rotation and have horsemanship experience.

Each facility will have their own interview, intake, and training procedure.
Volunteering

- Choose an AHCB credentialed professional to volunteer under.
- If unable to find a local AHCB credentialed OTP, volunteer with a therapist in another discipline and seek online mentoring from an OTP.
- Volunteers typically must attend a training at the center and will spend time working with the horses and participants, but each center will vary.

Ideas for occupational therapists
Groups

- Hippotherapy is used as a 1:1 treatment tool. However, occupational therapists bring expertise in working with group populations to affect change.
- Some ideas for groups would be appropriate for development by an occupational therapist and could be run by other program staff, such as riding instructors, equine specialists in mental health and learning, or recreational therapists.

Wellness Perspective

- Working around the farm can foster healthy habits and routines, develops strength and motor skills, and improves cardiovascular health.
- With a rising number of children facing obesity, the farm is a motivating environment to promote health and fitness.
Community outreach programs

- An after school program to boost self esteem, self care, responsibility, peer modeling, and provide positive adult role models by working on the farm.
- A program devoted to social and emotional growth in at risk youth. Provided through interactions on and off the horse focusing on self esteem, social relationships, appropriate behavior, as well using reward and privilege based motivation.
- Respite care offered one week and one weekend night. Offers a change for parents with kids with disabilities a chance to have an adults only night. Children with special needs and their siblings will have fun completing equine themed activities and craft/sensory activities.

Well-elderly program

- A program designed to promote health and delay dependence on others for care services. This program would use interactions with horses and time on the farm to enhance physical, social, and emotional well-being.
- Topics may include: injury prevention, diet and exercise, home adaptation, ergonomics, and expected age related changes in all physiological systems.
Life skills for people with mental health concerns

- Occupational therapy group with discussion related to life skills to include dressing/bathing, hygiene, diet and exercise, medication management and community living
- These could include diagnosis specific groups such as depression, cancer/stroke survivor support groups as well as mixed inpatient psychiatric groups. May work well as a co-treat with mental health specialist.

Social skills groups

- Designed for children with a variety of diagnosis experiencing difficulties with social skills. This group utilizes interactions both on and off the horse to develop appropriate social skills, create interaction, and utilize bonding with the horse.
Vaulting

- Vaulting is gymnastics on horseback. Vaulting focuses on teamwork, social and physical development. Vaulting includes time working with the horse, on a barrel, and mat activities.

- Vaulting requires specialized training for the practitioner, horse handler, and the horse.

- Vaulting allows vaulters 5 years and older participate in a group activity with individual attention and interaction with the horse.

Consultation Method

- Consulting with adaptive riding instructors to assist in evaluating clients, adapting equipment, altering the environment and altering teaching strategies.

- The consultant must have a strong horseback riding background and the ability to adapt equipment, while keeping safety and the horses’ health and comfort in mind.
Summary

- Occupational therapy can utilize many options to include horses and the equine environment to address functional challenges in clients of all ages.
- Hippotherapy utilizes the movement of the horse to produce functional outcomes.
- OTP may also utilize ground activities, educational experiences and working in groups.

Learning Outcomes Review

1. Describe the term hippotherapy as an occupational therapy treatment tool
2. Recognize the way hippotherapy can be applied to the three categories of intervention as defined by the OTPF3
3. List three practitioner qualifications for certification
References:


Questions
EponaTherapy@gmail.com