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# Hippotherapy



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# Introduction

Hippotherapy is becoming well-known among parents and caregivers, however, the link between hippotherapy and the use for occupational therapy services can be overlooked by clinicians who work in outpatient or school settings. Increasing the awareness of hippotherapy for practitioners can result in educating the interdisciplinary team and providing appropriate referrals when indicated. Like occupational therapy, hippotherapy can address a variety of client-centered goal areas. From increasing self-confidence to sensory integration, motor skills, and self-care, hippotherapy can be appropriate and engaging for certain clients. Therefore, it is essential for occupational therapists working with a variety of client populations to understand how this meaningful specialization can affect occupational outcomes.

## Section 1: Hippotherapy Basics

**References:** 1, 2

Hippotherapy is often confused for equine-assisted therapy because of how similar the styles look when in action. But there are several important differences between the two treatment types, which mostly relate to their goals and the providers who implement each.

Hippotherapy primarily focuses on cognitive, motor, and sensory functions while equine-assisted therapy (sometimes aptly called equine-assisted psychotherapy) addresses mental health concerns such as social skills, emotion regulation, and self-esteem. Because of the goals associated with each, hippotherapy sessions are led by occupational, physical, or speech-language pathologists who have training in hippotherapy. Equine-assisted therapy sessions are run by licensed mental health professionals who specialize in equine therapy. Despite these differences,

hippotherapy sessions don't entirely exclude social- or emotional-oriented goals, as many OTs and SLPs are qualified to address such skills. However, they are usually not the primary focus of sessions.

Equine-assisted therapy sessions often take place in stables, as they are largely focused on caring for and bonding with the horse. Hippotherapy involves therapeutic riding to address a range of physical skills. Both types of therapy allow someone to benefit from the calming nature of these animals as they learn valuable skills for their health and wellness.

## Target Populations

Hippotherapy is suitable for patients of all ages. Individuals with some of the following conditions may be good candidates for hippotherapy:

- Cerebral palsy
- Multiple sclerosis
- Rheumatoid arthritis
- Autism Spectrum Disorder (ASD)
- Cerebrovascular accident (CVA)
- Spinal cord injury (SCI)
- Traumatic brain injury (TBI)
- Attention-Deficit/Hyperactivity Disorder (ADHD)
- Anxiety disorders
- Depression
- Down syndrome

- Sensory processing disorder (SPD)
- Genetic disorders
- Developmental delays, including but not limited to developmental dyspraxia
- Guillain-Barre Syndrome
- Muscular dystrophy
- Spina bifida
- Cancer
- Amputees
- Parkinson's disease

## **Hippotherapy Best Practices**

The American Equestrian Alliance and the American Hippotherapy Association collaborated to form a statement of best practices for PTs, OTs, and SLPs to follow during hippotherapy. First and foremost, they state that any therapist using hippotherapy should have at least 1 year of clinical experience treating patients with neuromotor, cognitive, and sensory disorders. Therapists should also attend an American Hippotherapy Association (AHA) Level I training course focused on treatment principles. While not required, they strongly recommend the completion of AHA's Level II course as well as one of the following credentials: American Hippotherapy Certification Board (AHCB) or Hippotherapy Clinical Specialist (HPCS). Therapists should demonstrate a good understanding of riding to help them assess the horse's movement and suitability for therapy. In order to do this, therapists must be able to sit on the horse without reins or a saddle while being led (either lunged or long-lined).

Therapists who perform hippotherapy treatment sessions are considered team leaders, which means they must guide the following personnel who are involved in sessions: horse handlers, sidewalkers, equine professionals, other therapy professionals, and horses with hippotherapy-specific training. Each of these individuals plays an important role not only in the efficacy of the session but also for the safety of all parties involved. Therapists running hippotherapy sessions should also be able to perform each task their team members are responsible for. This does not apply to other therapy professionals due to scope of practice restrictions – rather, the horse handlers, side walkers, and equine professionals. This allows therapists to develop a deep understanding of the mechanics needed to fully implement a session. These roles include:

- **Horse handler:** Conditioning, training, and handling the horse to ensure for therapeutic movements that assist with optimizing outcomes
- **Sidewalker:** Ensuring the rider's safety while on the horse by walking alongside the horse as it moves; this comes in the form of emotional support as well as several specific holds to secure them in place
- **Equine professional:** Assessing horse suitability for specific patients; collaborating with therapists to be sure the horses' movements align with and facilitate therapy goals

In addition, therapists should be attuned to the horse's behaviors and mood to effectively monitor the animal for signs of stress. They should also understand how to respond to horse stress and any related safety concerns that arise as well as maintain control of the horse during times of transition (e.g. while a patient is getting on and off the horse or adjusting their own body position).

## Section 1 Personal Reflection

Is it possible for occupational therapists to be involved in equine-assisted therapy? If so, what setting might they need to work in for this to occur?

## Section 1 Key Words

Long-lined - A method of training a horse using several long lines from the ground level to guide them; also known as long reining

Lunged - Walking a horse in a circle while guided by a handler

## Section 2: Hippotherapy Session Structure and Connection to OT Practice Framework

**References:** 3, 4, 5

One of the most important tenets of hippotherapy is understanding that the horse serves as a natural base of support. There are many similarities between a horse's movement and a person's movement – in terms of speed, rhythm, walking style, and pace. Therefore, there are a wide range of applications in a therapeutic sense.

Horses are involved in sessions to varying degrees depending on a patient's needs and the aim of their therapy plan of care. It is common for only part of a therapy session to be completed on a horse. In fact, horse-related activities often serve as preparatory activities that precede functional and fine motor tasks such as scissor use, handwriting, prewriting, buttoning/unbuttoning, and opening/closing various clothing fasteners.

Conversely, therapists may use horses to provide a variety of challenges for patients. Hippotherapy professionals may have the horse walk in straight lines

with the rider on them to provide predictable and gentle movements to start with. Therapists may also guide the horse to walk in curved lines or circles to offer rotational vestibular input. Providers may guide the horse across a variety of terrains for an added challenge – this may include walking uphill, downhill, or across a somewhat uneven surface. This gives the patient the opportunity to practice spontaneous postural adjustments, trigger their righting reflex, improve their core strength, and more. Patients may also be assisted in the process of assuming various positions on the horse. They may be seated in the standard position where they are facing forward, but they may also be seated and facing backward, seated sideways, kneeling on the horse, or even quadruped. The therapist has the liberty to determine what positions are most beneficial for the rider as well as which positions pair best with the activities the patient will be asked to engage in at that time or following the riding portion of the session.

The horse may be encouraged to walk faster, which serves to upgrade a given task. Providers may also have the horse go through a series of starting and stopping exercises, either around barriers or according to their instruction. This can further promote balance-related skills in the rider. Of course, therapists can use a combination of these movements in varying amounts to prepare the patient for the next step of their session, which may involve continuing on the horse or take place in a more traditional clinic-type setting.

## **Hippotherapy Goals**

Just as with any modality, occupational therapists must develop appropriate objectives for their patients to work toward during hippotherapy sessions. The exact goals will vary based on areas of need identified in a patient's OT evaluation. Many client factors cited in the OT Practice Framework are used to assist with

hippotherapy goal setting, while other goals may be more function based. Some goal areas that are a good fit for hippotherapy include:

- **Activities of Daily Living (ADL) function:** A range of hippotherapy preparatory activities can be completed to prime a patient for improved ADL participation.
- **Balance and postural control:** Some specific skills include crossing midline and core strength, which may be addressed by having a patient complete certain tasks while remaining upright and seated on the horse. Dynamic standing balance can also be incorporated by standing in stirrups to complete a task while on a horse.
- **Cognition:** Hippotherapy requires so many providers to be involved and often presents patients with novel experiences, so this is a great way to work on many cognitive functions. These sessions may address skills such as attention, direction-following, timing, problem-solving, safety, and organization.
- **Emotion regulation:** Even if a patient is not riding the horse, simply being around animals in a new environment can have psychological benefits. Patients may experience improved confidence, greater motivation, increased ability to manage their emotions, and the opportunity to develop a bond with these animals.
- **Fine motor skills:** Some appropriate tasks include manipulating fasteners on clothing, opening and closing containers, sorting and organizing small items, and writing. Again, some of these activities may be done on the horse while others may be done as tabletop tasks. Other horse-related fine motor goals may include opening and closing extra large fasteners on the horse's saddle or other equipment, donning/doffing the bridle on the horse, donning/

doffing their helmet or gait belt, manipulating buckles and fasteners to take out/put away reins, neck straps, etc.

- **Gait:** By riding the horse, patients can experience sensations of normal gait patterns as the horse moves. This can help patients improve body awareness and relearn to walk over time or fine tune aspects of their existing movement patterns. This not only applies to gait but also related areas such as strength and coordination.
- **Gross motor skills:** Patients may be asked to complete activities such as ring tosses, ball throws, and reaching for nearby objects while positioned on a horse.
- **Multi-step task completion:** Patients may be asked to perform simple tasks all the way through more complex tasks that involve the horse or caring for the horse.
- **Range of motion:** Hippotherapy can help with range of motion in various parts of the body, but most often targets movement in the spine, pelvis, and hip. These are central parts of the body so their alignment is essential for posture and serves as the foundation for gross and fine motor skills.
- **Righting reactions:** Due to the movements of the horse, patients who ride must make continual postural adjustments, which consistently test righting reflexes. The development of these reflexes can help with the growth of someone's motor skills.
- **Sensory processing:** The multi-sensory act of being on a horse provides vestibular stimulation and proprioception as well as helps with kinesthesia and auditory processing. In addition, interacting with and caring for horses can help with overcoming tactile defensiveness. Patients may be asked to touch hay while gathering it for feeding, manipulate the horse's saddle

while helping put it on before riding, brush the horse to groom and clean them, and more. Patients must wear safety gear (namely a helmet and a gait belt), which adds another layer of tactile stimulation. As an indirect result of postural control improvements, patients may also see oral motor skills grow.

- **Social skills/communication:** Providers may encourage patients to direct the horse using non-verbal or verbal communication. There is also the opportunity for patients to strengthen their verbal expression by interacting with team members assisting during sessions.

## Hippotherapy & Theory Bases

There are a range of theoretical foundations that support hippotherapy as an occupational therapy treatment. Firstly, principles associated with motor learning theory strongly align with those of hippotherapy. Some examples include diverse motor practice through the varied movements of a horse; the continual need for problem-solving during the riding process; and complex spatial relations between the horse, the ground, and the rider.

Hippotherapists can also use neurodevelopmental treatment (NDT) principles during their sessions. The horse's movements offer natural opportunities for inhibition, facilitation, lateral weight shifting, dissociation between lower and upper body, and dissociation between pelvis and upper trunk. Hippotherapists and horse handlers must ensure the horse's movements remain symmetrical, repetitive, and rhythmic to encourage the same type of movement in riders. In addition, these professionals can use their expertise to ensure grade any of the above movements up or down according to patient needs.

Sensory integration principles are also largely prevalent during hippotherapy. Horses can offer meaningful, practical ways to learn sensory modulation and

processing skills. Hippotherapists must continually weigh a patient's needs, response to intervention, and level of arousal and regulation to make adjustments to the sensory demands of activities. This may mean moving riding tasks from outside to inside, or shifting from horse-based tasks to horse-related tasks.

Many times, therapists blend theory bases in order to offer the just-right challenge for their patients. This is especially common due to the dynamic nature of hippotherapy. Hippotherapy professionals must be particularly vigilant about bolstering the treatments they provide with theoretical foundations, as this shows the evidence base behind their treatment. We will discuss some of the research on this specialty in the next section.

## **Section 2 Personal Reflection**

Let's say a patient is working on fine motor skills by manipulating some of the horse's equipment. What occupations might these activities carry over to in a patient's daily life?

## **Section 2 Key Words**

Bridle - A piece of headgear worn around the upper part of the horse's muzzle (mouth)

Neck straps - A piece of headgear that rests around the horse's neck and allow the rider to control the horse's movements from a safe and consistent point on their body

Reins - A piece of equipment in the form of two straps attached to the bridle that the rider uses to direct the horse's head and their overall speed

## Section 3: Evidence on Hippotherapy

**References:** 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25

There are a range of research studies that delve into the efficacy of hippotherapy when used with various populations. Some of the evidence available does not distinguish between hippotherapy provided by physical therapists, hippotherapy provided by occupational therapists, and hippotherapy provided by speech-language pathologists, making it difficult to discern what outcomes are attributed to what profession. However, each of these providers bring their own unique expertise to the table, which means evidence review should focus more on hippotherapy outcomes rather than specific providers. This is especially the case since there are varying degrees of overlap between the three professions.

Some large scale studies have looked at hippotherapy across the board to determine discipline- and patient-related trends within this specialty. While somewhat dated, a large systematic review showed that patients with cerebral palsy were the most common population served and physical therapists were the most prevalent discipline involved in this speciality. This review also found there is some ambiguity in the definition of hippotherapy. This presents an area of opportunity, not only for more clarity in what hippotherapy is but also for occupational therapists to take a greater stance in this speciality. Such distinction can assist with referral sources, insurance reimbursement, and scope of practice concerns.

### Child Studies

Peia et al. (2023) explored the use of hippotherapy with children who have cerebral palsy. This study found hippotherapy to be particularly effective in the rehabilitation of postural control skills including dynamic balance, static balance,

sitting posture, and postural alignment in children between the ages of 3 and 16 with this diagnosis. While this age range covers much of the pediatric population, there is a need for research on the effectiveness of this modality with older adolescents and adults with cerebral palsy.

Cotton (2021) conducted a study weighing the efficacy of occupational therapy via hippotherapy on the sensory integration skills of children with Autism Spectrum Disorder. Results showed that 8 sessions of hippotherapy led to an overall improvement in sensory integration. This study was quite small and should be widened to prove a more definitive link. However, the results are promising in measuring short-term progress as 8 sessions is a common time frame to set for short-term objectives.

A scoping review from Kiambati et al. (2024) found hippotherapy to be one of several valuable and effective modalities for children with Autism Spectrum Disorder, though there are a limited amount of specialty services in certain geographic areas. Less developed countries commonly have difficulty accessing modalities such as these. However, access trends differ in developed countries where it is typically beneficial to be in large cities due to having a greater amount of care options. With hippotherapy centers being largely located in rural areas, this serves as a barrier for city-dwelling individuals who may have limited transportation options and other resources.

Maresca et al. (2020) conducted a large-scale narrative review to assess the benefits of hippotherapy on cognitive and behavioral outcomes in children. Results showed children with conditions such as cerebral palsy, dyspraxia, ASD, ADHD, and developmental disorders particularly stood to experience improved autonomy, enhanced self-esteem, greater openness to others, and increased self-efficacy as a result of hippotherapy. This population also experienced an improvement in motor skills. In addition, hippotherapy led adolescents with

depressive disorders and anxiety to demonstrate similar gains in psychosocial and physical skills. This review also went as far to say that hippotherapy can be considered an alternative, not complementary modality, due to the range of benefits it provides. Such results are quite substantial, especially given the emphasis placed on integrative care as one of the most holistic options for many diagnoses.

Other research reflects the push toward integrative care, specifically with children who have Down syndrome. Kaya et al. (2023) conducted a randomized controlled trial that compared the effects of hippotherapy and physical therapy-based balance exercises on functional mobility, balance, and functional independence. Results showed Pediatric Balance Scale and Timed Up and Go Test scores improved in both treatment groups while WeeFIM scores improved only for children who received hippotherapy. This study supports the use of hippotherapy as an integrative modality provided alongside physical therapy for maximal benefits.

A systematic review by Alexander et al. (2024) looked at the impact of various therapy modalities on academic participation in traditional school settings, and hippotherapy was included in these interventions. Results showed there was weak evidence to support the link between hippotherapy and improved academic participation, though this is understandable since hippotherapy is outpatient and does not focus on IEP-related goals. These researchers did state that evidence for school-based interventions is not sufficient enough to guide practice, so it is acceptable for hippotherapy to act outside the realm of school therapy as it currently does.

There is also evidence supporting the use of horses for the treatment of neurotypical children and adolescents. A scoping review by Gomes da Silva et al. (2025) showed a large number of studies (RCTs and non-RCTs) that explored the

benefits of this modality with such youth. Results showed that randomized controlled studies yielded the most gains in social competence while non-RCTs led to significant improvements in emotion regulation, behavioral function, and cognition. The only perceived limitation in this review is that search terms extended to include horseback riding as well as hippotherapy, so results may be somewhat blended.

Yu et al. (2025) conducted a systematic review on the utility of animal-assisted interventions in general for children with ADHD. Results showed that, compared to no intervention at all, studies that focused on the provision of animal-assisted interventions yielded significantly improved attention, self-esteem, learning and cognitive function, and motor skills. Compared to conventional treatments such as medications, animal-assisted interventions did not appear to affect ADHD severity nor was there any notable impact on social skills, problematic behaviors, or emotional concerns associated with this condition. These results suggest that OTs can readily use animal-assisted interventions to improve therapy participation in children with ADHD, which can lead to a host of other OT-specific benefits.

Short et al. (2025) also looked at hippotherapy as part of the greater category of non-pharmacological interventions for neurodivergent children. This systematic review found that gross motor skills were most often targeted by this class of interventions; outcomes were assessed through standardized measures; interventions were most effective when provided twice weekly in novel settings; and skill transfer varied largely depending on how specialized the intervention was. These characteristics are important for OTs and other hippotherapy professionals to know, as they should be adopted for improved efficacy.

A systematic review from Pantera et al. (2022) found that hippotherapy can help children with cerebral palsy in the areas of posture, spasticity, walking skills, motor function, and symmetry of muscle contractions. There was also some

evidence, though of a lesser quality, on motor coordination, balance, walking speed, functional development, socialization, and lumbopelvic movement in children with cerebral palsy. This review encouraged the use of hippotherapy in this population with overall moderate quality supporting evidence.

A meta-analysis looked even more closely on the transient effects of hippotherapy specifically on spasticity in children with cerebral palsy. Hyun et al. (2022) found that hippotherapy led to a reduction in lower extremity muscle spasticity through standardized assessment scores. These results did not appear to further improve as a result of repeated trials. However, such short-term improvements certainly can be used to improve session-specific occupational performance to assist with goal progress. More studies are needed to definitively determine the impact hippotherapy may have on long-term spasticity associated with cerebral palsy.

Waltz et al. (2024) conducted a rapid systematic review on standards of care for pediatric cancer patients. This review explored various types of incorporated and skilled OT therapies, including aquatic therapy, gross motor rehabilitation, patient and caregiver education/training, and hippotherapy. Results showed there is a major gap in standardized protocols for these modalities – both in general and related to pediatric oncology patients. This serves as an opportunity for occupational therapists who specialize in hippotherapy. Even so, skilled OT interventions in this category have improved motor skills and health-related quality-of-life while yielding lower levels of anxiety, fatigue, and pain for children recovering from cancer.

Xu et al. (2025) performed a meta-analysis on nonsurgical therapies for children with spastic cerebral palsy. Results showed that the following interventions led to improved gross motor skills: acupuncture, gaming, whole-body vibration, and hippotherapy. Researchers noted the major limitation of this study was the small number of RCTs that supported some interventions (not inclusive of

hippotherapy). However, hippotherapy, acupuncture, and biofeedback were cited as being the most effective of the interventions assessed in this study for gross motor function, gait, activities of daily living, and spasticity management.

A somewhat unique systematic review by Potvin-Belanger et al. (2022) looked into how hippotherapy impacted the life habits of children with disabilities. This review found that, while some studies on this topic were low quality, most were acceptable or excellent in terms of reliability. In addition, the majority of the studies reviewed showed an observable relationship between hippotherapy and three main habits: communication, mobility, and interpersonal skills. While these skill areas most closely correlate with SLP and PT scopes of practice, there is still a connection to the work OTs do.

## **Adult Studies**

There is somewhat less public awareness of the benefits associated with hippotherapy in adults, though there is still research in this area. Several studies have looked into hippotherapy with patients who have multiple sclerosis. One helped determine the effect of personality on hippotherapy suitability. Dziubek et al. (2021) explored personality traits as a way to gauge suitability for patients with multiple sclerosis. Dziubek et al. found that patients who participated in hippotherapy demonstrated higher levels of openness to new experiences, conscientiousness, and agreeableness than those who did not. There is high potential for therapists to look for these traits in any individual assessed for hippotherapy, as this can be an important indicator of positive health outcomes.

Gamez-Calvo et al. (2021) performed a review on outcomes associated with hippotherapy use in elderly patients. These researchers found that hippotherapy used with elderly individuals specifically focused on flexibility, gait, muscular strength, cadence of steps, functional mobility, postural balance, static balance,

and dynamic balance. In addition, the review found a link between hippotherapy and improved spasticity management, increased quality-of-life, lower risk of falls, lower levels of depression and stress, improved quality of sleep, and mood improvements. Many of these markers are crucial to address in an older adult population, so hippotherapy can assist in providing comprehensive OT care.

The *Guide to Equine Assisted Therapy* cites many evidence-based benefits associated with hippotherapy for adults with post-traumatic stress disorder (PTSD). These included improved psychological flexibility, improved affect, decreased levels of depression, lower anxiety levels, less substance cravings, and a decline in PTSD symptoms. While it may be less common for OTs to treat traditional mental health diagnoses with hippotherapy, these outcomes are quite significant and could benefit from more research.

Though briefly, Kocyigit et al. (2023) noted that hippotherapy may help older adults with chronic pain and rheumatic conditions. This review did not discuss specific benefits, but posited the potential for use in this population as well as the possibility of using horse riding simulators in a therapeutic sense to assist with rehabilitation. More research is needed on hippotherapy with individuals who have arthritis, but early research on other geriatric populations is promising.

Stergiou et al. (2025) conducted a systematic review on equine-assisted therapy across all age groups and populations, though the results for adults were particularly important to share. The review found statistically significant differences in Timed Up and Go (TUG) scores before and after elderly patients and post-stroke individuals participated in equine-assisted therapy. There were slight improvements in other skill areas, but those were not quite as notable as fall risk, balance, and mobility, which are chiefly associated with the TUG.

Viruega et al. (2023) ran a randomized controlled trial comparing the outcomes of hippotherapy with conventional supportive care for adult women with breast

cancer. All participants were past the primary treatment phase during which they received radiation, surgery, and/or chemotherapy. The experimental group involved a 6-month program that included 1 week of daily hippotherapy followed by three 2-day hippotherapy sessions with a 2-month break in between each. Conventional supportive care was provided during this 2-month period. The control group received 6 months of conventional supportive care. The hippotherapy group showed a more significant, quicker, and continuous improvement in all outcome measures. Lower fatigue levels and enhanced global quality-of-life were the most notable improvements from this group. Hippotherapy participants also displayed an increase in breast cancer-specific quality-of-life and cognitive performance along with improved body image, depression, and anxiety levels, though these gains were less significant than other outcomes.

### **Section 3 Personal Reflection**

Is it possible for occupational therapists to be involved in equine-assisted therapy? If so, what setting might they need to work in for this to occur?

### **Section 3 Key Words**

Long-lined - A method of training a horse using several long lines from the ground level to guide them; also known as long reining

Lunging - Walking a horse in a circle while guided by a handler

## Section 4: Case Study #1

A 10-year-old child with ADHD is participating in hippotherapy with an OT and PT. The child's main areas of need include gross motor coordination, fine motor coordination, handwriting, and dynamic balance. The child has been participating in this modality for 2 months and has been displaying some new behavioral concerns in the past 2 weeks that have led her to be less cooperative during sessions. The child's doctor is aware of these concerns and is in the process of screening the child for oppositional defiant disorder. Parent reports suggest similar behavioral changes have arisen in the home and school environments.

1. Based on the child's areas of need, what are some appropriate goals for the child's OT to add to her plan of care?
2. Is this child still a good fit for hippotherapy considering her recent behavioral changes?
3. If the therapist decides to continue hippotherapy sessions with this child, what session modifications can she make to allow for improved participation?

## Section 5: Case Study Review #1

This section will review the case studies that were previously presented. Responses will guide the clinician through a discussion of potential answers as well as encourage reflection.

1. Based on the child's areas of need, what are some appropriate goals for the child's OT to add to her plan of care?

- Student will maintain an upright position on the horse while engaging in a fine motor task for 6-8 minutes in three consecutive trials.
- Student will fasten the horse's saddle and adjust the horse's reins with min verbal cues prior to mounting the horse 80% of the time.
- Student will copy a sentence from a visual model with 100% legibility, proper sizing, and proper spacing in 3 out of 4 trials.

2. Is this child still a good fit for hippotherapy considering her recent behavioral changes?

Yes, this child may still be a good fit for hippotherapy depending on the type of behaviors she is exhibiting. If the child is demonstrating similarly uncooperative behaviors while on the horse and while practicing handwriting in a more relaxed clinic setting, then the therapists may need to consider some changes. If most of the child's behavioral difficulties take place while on or in close proximity to the horse, that may be the root cause of the new concerns. Since this child is 10 years old, the therapist might want to try having a conversation with the child, specifically asking them if something about the sessions makes them uncomfortable or if they have any preferences for what they do during sessions. It may also be helpful for the therapist to inquire about the child's preferences in general, as maybe this wasn't explored enough as part of the occupational profile/evaluation or it was discussed but hasn't been incorporated enough.

3. If the therapist decides to continue hippotherapy sessions with this child, what session modifications can she make to allow for improved participation?

It might be helpful for the therapist to shift sessions away from the horse for a short time and focus more on clinic activities. This may help improve

the child's engagement and even offer the ability for the child to share how they are feeling, which may uncover the source of the behavioral concerns. This shift may also allow some time for the child to be diagnosed with ODD (or to rule out the condition), at which point the therapist can adjust their approach and possibly even the plan of care.

## Section 6: Case Study #2

A 76-year-old woman with multiple sclerosis is participating in hippotherapy with an OT. She is well-versed in caretaking for horses, as she grew up on a farm and tended to her brother's horses for much of her adult life. Around the time she was referred to hippotherapy, she started demonstrating signs of cognitive decline. Her doctor is in the process of assessing her for dementia, though it is unclear to the therapist if these changes are associated with her MS diagnosis. Her OT evaluation showed a decline in ADL function (specifically grooming, hygiene, and feeding), poor fine motor skills, impaired dynamic balance, and a history of falls. She is currently using a rollator to ambulate, but the OT is also hoping to improve her gait.

1. What hippotherapy activities may benefit this patient?
2. Should this patient's sessions take place on the horse, in a clinic setting, or a combination of both?

## Section 7: Case Study Review #2

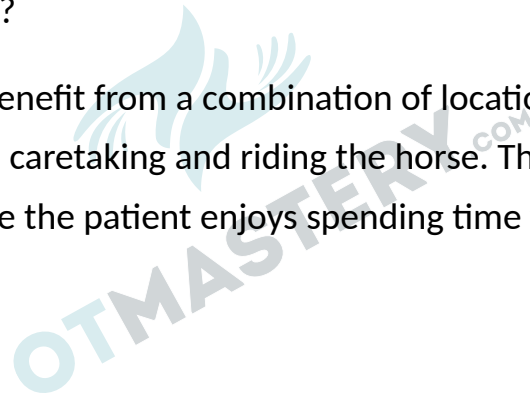
This section will review the case studies that were previously presented. Responses will guide the clinician through a discussion of potential answers as well as encourage reflection.

1. What hippotherapy activities may benefit this patient?

Since this patient has fine motor deficits as well as a demonstrated love of horses, there are many caretaking activities that she would likely enjoy. The therapist can lead this patient through feeding, brushing, and washing the horse as well as managing the horse's equipment at the start and end of each session. These tasks can easily incorporate work on dynamic balance, fine motor skills, and ADL function. The therapist can also work on some aspects of cognition (e.g. joint attention) by having the patient discuss her experience with horses and tell stories about her memories of that time while engaging in the functional tasks.

2. Should this patient's sessions take place on the horse, in a clinic setting, or a combination of both?

This patient would benefit from a combination of locations but with a heavier emphasis on caretaking and riding the horse. This would likely yield greater benefits since the patient enjoys spending time with the horse.



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