

# Hippotherapy as a Treatment Strategy for Pediatric Population with Disabilities

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## BACKGROUND

Hippotherapy is a treatment strategy gaining a significant amount of attention from the therapeutic world; however, is still a treatment strategy continuously overlooked. Hippotherapy can be defined as inducing the treatment of certain diagnosis using a horse as a living tool (Zamfir et al., 2017). The American Association of Hippotherapy defines the term as the usage of a horse's movements as a tool for kineto, mental, and speech therapists in getting functional responses and certain disability treatments in clients with a variety of diagnosis (American Hippotherapy Association, 1992). Hippotherapy is applicable to physical therapy, occupational therapy, and speech therapy.

Hippotherapy focuses on a special bond created between both the client and horse, making the human-animal bond an authentic one (Zamfir et al., 2017). Hippotherapy takes the client out of the traditional therapeutic setting and into a barn environment which is less stressful and intense for the client (Zamfir et al., 2017). Occupational therapists are well equipped to provide hippotherapy because they can incorporate the movement of the horse with the intention of improving motor control, coordination, balance, attention, sensory processes, and performance in daily activities for their clients (Koca & Ataseven 2015).

## FOCUSED QUESTION

How effective is hippotherapy as a treatment strategy for children and youth with a variety of disabilities?

## METHODS

### Identification:

- Electronic Database Searches
  - Creighton Health Sciences Library, Elsevier ScienceDirect Freedom Collection, PubMed Central, DOAJ, EBSCOhost CINAHL complete, SAGE JOURNALS Premier 2019, Google Scholar
  - Search terms: Hippotherapy, disabilities, children, youth, pediatrics, equine assisted therapy
  - (n=4,106 records)

### Screening:

- Records after titles/abstracts screened for hippotherapy being specifically used for pediatric population with disabilities and must be peer reviewed (n=60)
  - Excluded (n=32)
  - Age range >18 years, no noticeable outcome using hippotherapy as treatment strategy, access to journal not available

### Eligibility:

- Full-text articles assessed for eligibility (n=28)
  - Excluded (n=18)
    - Not focused on occupational outcomes of the client such as gross motor & fine motor skills, cognitive skills, language skills, sensory integration, functional ability in daily living, etc.

### Included:

- Studies assessing hippotherapy as an effective treatment strategy for the pediatric population with disabilities (n=10)
  - Inclusion Criteria
    - Improved occupational outcomes of the client such as gross motor & fine motor skills, cognitive skills, language skills, sensory integration, functional ability in daily living, etc.; Age range <18 years
    - Noticeable outcomes using hippotherapy as treatment strategy
    - Journal accessible

## RESULTS

### Result:

- Hippotherapy as a treatment strategy for the pediatric population with disabilities greatly improves a client's quality of life.

### Three Main Themes:

- Improved Daily Life Skills through Intervention
  - Improved functional tasks needed for school such as reading and writing considering target group is youth
  - Improvement with self-cares, social skills, sensory integration, range of motion, gross & fine motor movement (these areas can be applied to several different occupations of a child)
- Movement Produced from The Horse
  - Horses natural movement provides therapeutic benefits for client such as improved gross motor movement, range of motion, balance, strength, and endurance
- Motivation to Participate in Therapy
  - Bond created between rider and horse is mentally stimulating and motivating for client
  - Clients are more motivated to attend and actively participate in hippotherapy sessions compared to the traditional therapy setting
  - Increased improvement in client's abilities and progress towards individuals' goals

### Case Study Example:

Cindy is 7 years old and diagnosed with cerebral palsy. Cindy is in the 5th grade and primarily uses her wheelchair as her method of transportation. Cindy carries a lot of spasticity in her legs. She does have a two wheeled walker at home but does not use it as often due to her difficulty with walking. Cindy prefers to use her wheelchair. Cindy attends hippotherapy 2x/week for 45 min sessions. Her and her occupational therapist work on core strengthening activities such as throwing a ball at different targets set up around the arena while on horseback and riding the horse mounted in different positions such as quadruped, side sitting, backwards sitting, and forward sitting to improve core strength and leg strength. The warmth of the horse helps to reduce the spasticity in Cindy's legs as she straddles the horse. Cindy has improved in her gross motor movement, balance, strength, and range of motion.

## BOTTOM LINE FOR OT

Hippotherapy is an extremely beneficial treatment strategy to use for pediatrics with a variety of disabilities making it a versatile tool within the therapeutic community. Occupational therapy is constantly looking for new and innovative ideas on how to treat clients, so clients are able to perform their daily occupations once again while helping to improve the client's quality of life. Hippotherapy is a motivator for several clients because it gives the client a chance to get out of the traditional clinical setting, get the opportunity to work with a horse, and create a special bond with the horse they ride.

Hippotherapy allows the flexibility for several different occupational therapy assessments and interventions typically used in a traditional clinical setting to be adapted to the hippotherapy environment proving the versatility of hippotherapy. There is a plethora of interventions that can be completed on a horse during treatments sessions focusing on range of motion, balance, postural control, fine motor control and sensory integration, edurance, emotional healthing, and communication skills. All of which are areas of focus for occupational therapists.

It is imperative occupational therapists consider specializing in hippotherapy so it can later be used as a possible form of treatment for clients who may need to break free from the traditional therapy setting and step into an environment that is less intense and calming. Hippotherapy truly benefits the client in multiple ways and is a treatment strategy that needs to have a seat at the table when it comes to the different therapeutic options available to the client.

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