Hippotherapy: An Integrated Occupational Therapy Intervention

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Outcomes

- What is hippotherapy?
- Difference between hippotherapy and therapeutic riding
- Why use a horse?
- Diagnoses/Impairments
- Benefits
- Teamwork
- What OT looks like using hippotherapy
- Research
- Training
What is Hippotherapy?

“What Hippotherapy is a physical, occupational, and speech-language therapy treatment strategy that utilizes equine movement as part of an integrated intervention program to achieve functional outcomes.”

(American Hippotherapy Association [AHA], 2010b, para. 1)
Difference Between Hippotherapy & Therapeutic Riding

- **Hippotherapy**: THERAPY using a horse as an intervention technique

- **Therapeutic Riding** – main objective is to teach the skills of horseback riding to the special needs population.

(AHA, 2006, 2010b; Engel & MacKinnon, 2007)
Why Use a Horse?

- Equine movement is ideal movement
- Horse gait very similar to typical human gait
- Promotes active responses in the client across systems
- 3000 repetitions per 30 min session from typical pace
- Large range of control to adapt/grade

(AHA, 2006, 2010b; Engel & MacKinnon, 2007)
Why Use a Horse?

- Layered approach
- Natural environment
- Emotional bond/connection
- Motivation
- Horses – mirror behavior in client—provide instant feedback

(AHA, 2006, 2010b; Engel & MacKinnon, 2007)
Typical Diagnoses & Impairments

- Autism Spectrum Disorder
- Cerebral Palsy
- Developmental Delay/Cognitive Disorders
- Genetic Syndromes
- Learning Disabilities
- Sensory Integration Disorders
- Impaired Communication/Speech-Language Disorders
- Multiple Sclerosis
- Orthopedic Conditions
- Traumatic Brain Injury/Stroke

(AHA, 2006, 2010b; D. Gubisch, personal communication, April 12, 2012)
Typical Diagnoses & Impairments

- Mental Health Impairments (PTSD, Depression, etc.)
- Emotional challenges
- Abnormal muscle tone
- Impaired balance responses
- Impaired coordination
- Impaired communication
- Impaired sensorimotor function
- Postural asymmetry
- Poor postural control
- Decreased mobility
- Limbic system dysfunction (arousal & attention)

(AHA, 2006, 2010b; D. Gubisch, personal communication, April 12, 2012)
Benefits

- Decrease tone
- Strength/Endurance
- Core control
- AROM
- Pelvis mobility
- Sitting/standing balance
- Motor planning
- Visual motor skills
- Coordination (bilateral, hand-eye)
- Reciprocal UE/LE movement
- Crossing midline
- Fine motor skills

(AHA, 2006, D. Gubisch, personal communication, April 12, 2012)
Benefits

- Problem-solving
- Direction following
- Attention
- Cognition/executive functions
- Social skills
- Decreased anxiety
- Confidence
- Motivation
- Sensory processing/modulation
- Increase independence with ADLs...age appropriate play.
- Fun!!! ➔ Leisure/Play

(AHA, 2006, D. Gubisch, personal communication, April 12, 2012)
Treatment Team

**Leader**: Get the horse/pony tacked up with appropriate tack, focus on controlling the horse/pony, follow therapist's directions

**Sidewalker**: Provide physical and emotional support to rider; follow directions of the therapist

(AHA, 2006)
Treatment Team

-Occupational Therapist:
  - Helmet/gait belt
  - Tack is correct
  - Instruct parents on their level of participation
  - Direct the treatment session → the holds, the change in gait of the horse, activities, and emergency dismounts
  - Monitor the client
  - Provide a summary of progress for the parents
Physicians as Part of the Team

- EDUCATION!!!
  - What is hippotherapy?
  - Benefits
  - Who are good candidates?
  - What are contraindications?

- Updated on patients progress
Implementing: The OT Evaluation

- Pediatric to adult population
- Interview clients, parents/caregivers
- Education on rules & roles
- Evaluation: Informal & Formal
  - Off horse first followed by on horse
  - Observe movement patterns and behaviors
- Can use standardized assessments to get baselines off the horse
- Can develop evaluation protocol for on-horse baselines
Implementing: The OT Treatment Session

- Include grooming & tacking → Depends on client
- Mounting block vs. ramp
- Stirrups or reins → Depends on client
- Warm up
- Change directions, positions, speed
- Start/Stops
- Layering in games, activities, play while riding
- A/AA/PROM to pelvis, UE and LE
- Dismount (Transfer)
- Position of WC in regards to dismount

*Always be prepared for emergency situations
Therapeutic Saddle

(Gubisch, 2012)
Therapeutic Saddle with Sursingle

(Gubisch, 2012)
Activities, Games, & Toys

- Basketball
- Reaching into mailboxes
- Simon Says
- Scavenger Hunt
- Obstacle Course
- Red Light, Green Light
- Follow the Leader
- Imaginary Play
- Drawing on clipboard/hard surface
Activities, Games, & Toys

- Bubbles
- Stuffed animals
- Cars
- Toy grabbers/
- Balls
- Squeeze & textured toys
- Hair clips/ribbons for the mane
- Telescope (toilet paper roll)
- Manipulatives
- Books
Positions: Forward

(Engel & MacKinnon, 2007, p. 199)
Positions: Supine

(Engel & MacKinnon, 2007, p. 199)
Positions: Backwards

(Engel & MacKinnon, 2007, p. 198)
Positions: Prone

(Engel & MacKinnon, 2007, p. 197)
Positions: Quadruped

(Engel & MacKinnon, 2007, p. 200)
Documentation

- Notes (Evaluation & Progress & Re-evaluations)
  - Typically avoid horse terminology
    - i.e.: riding horse $\rightarrow$ dynamic base of support
- Reimbursement
  - Private pay
  - Insurance $\rightarrow$ CPT Codes

(Engel & MacKinnon, 2007)
Research

- Increased research over the years demonstrating effectiveness of hippotherapy as an OT intervention

- Many qualitative research or quantitative case studies

- More quantitative studies with larger samples or more rigorous parameters is the next step
Research: A Few Examples


Training

- Do NOT have to have prior horse skills
  - Level I
    - Equine Skills
    - Treatment Principles
  - Level II
    - Equine Skills
    - Treatment Principles

-American Hippotherapy Association website:
www.americanhippotherpayassociation.org

(AHA, 2010a)
More Training Available!

-The Horse Connection: Long Lining – Maximizing Your Horse’s Potential
-The Core Connection: The Link Between Hippotherapy and Core Control
-The Business Connection: Business Aspects of Hippotherapy: How to set up a Practice Incorporating Hippotherapy
-The Communication Connection: Maximizing Communication for the Non-SLP
-The Sensory Connection: Sensory Concepts, Theory and Applications in Hippotherapy
-Muscles in Motion

(AHA, 2010a)
Textbook Resources:


QUESTIONS?
THANK YOU!
References


References


