The Use of Objective Measures in Hippotherapy

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Introduction

Hippotherapy: Physical Therapist, Occupational Therapist, or Speech Language Pathologist works on an individual's impairments and activity limitations. According to the American Hippotherapy Association:
- Therapist guides the session with the client
- Horse is used as a tool to improve the client's posture, balance, coordination, strength and sensorimotor system
- Client interacts with/respects to the movements of the horse

Therapeutic Horseback Riding: Adapted sport where the child works on riding skills. According to the American Hippotherapy Association:
- Certified riding instructor leads the session
- Exercise to improve coordination, balance, posture and encourage development of sensory and perceptual motor skills
- Client controls the horse

Objective

1. Comprehensive literature review
   - Identify objective measures used in hippotherapy studies to measure balance, strength, and functional mobility in children with various physical disabilities.
   - Objective measures:
     - 6-Minute Walk Test
     - Pediatric Balance Scale
     - Pediatric Evaluation of Disability Inventory (PEDI)
     - Pediatric Reach Test
     - Timed Up and Go Test
     - Selected items from the Gross Motor Functional Measure (GMFM)

2. Experiential partnership
   - Researchers (AG and LS) volunteered for 12 hours each during hippotherapy sessions with a PATH Intl. Registered Therapist.
   - This partnership enabled researchers to better understand current practice.

3. Use of objective measures with clients
   - Hippotherapy clients: two children, both ages 6 years
   - Therapeutic riding clients: four children, ages 7-16 years
   - Participants were evaluated at baseline and approximately 5 and 10 weeks later (follow-up evaluations pending).

4. Knowledge translation
   - Researchers trained therapists and staff at Special Equestrians on the use of objective measures and provided progress monitoring tools to objectively assess and track changes in clients’ gross motor skills.

Implications

- These objective measures may be used:
  - To measure skills and change over time in children who are participating in hippotherapy.
  - To measure skills and change over time in children who are participating in therapeutic riding who demonstrate significant limitations in balance and gross motor skills.
  - In future research studies to further examine the efficacy of hippotherapy on these skills.

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References