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# An Exploratory Survey of Occupational Therapists' Role in Hippotherapy

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The term hippotherapy is derived from the Greek word for horse, or hippos. The American Hippotherapy Association (2007) defines hippotherapy as an occupational, physical, or speech therapy intervention strategy, using the movements of a horse, used as part of an intervention program to facilitate functional gain. In hippotherapy, therapists use the movements of the horse as a vehicle for improving clients' functional limitations. Hippotherapy is an intervention method mentioned in the occupational therapy literature more than 20 years ago (Engel, 1984) that has received minimal research attention within our field. Little is known about the role of occupational therapists in hippotherapy and the way in which they use this form of intervention.

Hippotherapy is believed to be an effective method for improving a variety of client factors and process skills, such as balance, posture, sensory processing, and cognitive skills, as well as daily activity performance, self-esteem, and social participation (Splinter-Watkins & Calhoun, 1999). In physical therapy research, therapeutic riding has been reported to be beneficial for improving gross motor skills (Bertoti, 1988; Casady & Nichols-Larsen, 2004; McGibbon, Andrade, Widener, & Cintas, 1998; Sterba, Rogers, France, & Vokes, 2002; Winchester, Kendall, Peters, Sears, & Winkley, 2002), posture (Bertoti, 1988), and energy expenditure (McGibbon et al., 1998), particularly for children with cerebral palsy. Recently, research from a college of nursing suggested that therapeutic riding positively affects psychosocial skills in at-risk children and children receiving special education (Kaiser, Smith, Heleski, & Spence, 2006).

Although occupational therapy authors have recommended that therapists play an active and unique role in hippotherapy (SplinterWatkins & Calhoun, 1999), and one study reported on a camp program based on the sensory integrative frame of reference in which the use of therapeutic riding improved child behaviors (Candler, 2003), there is a paucity of literature regarding the impact of hippotherapy on functional outcomes. Additionally, no current information is available with regard to the scope and role of occupational therapy within the field of hippotherapy. Therefore, the purpose of the survey described in this article was to explore occupational therapists' perceptions of their role in hippotherapy, the uses of equine-assisted therapy in practice, and these practitioners' backgrounds and training.

## **Method**

### **Participants**

Researchers mailed a two-part survey to 101 occupational therapists in the United States who were identified through a listing on the American Hippotherapy Association Web site ([www.americanhippotherapyassociation.org](http://www.americanhippotherapyassociation.org)). In some cases, the survey did not reach the intended

occupational therapist directly. If that occupational therapist or no other occupational therapists were on the staff at the facility (either paid or unpaid), site directors and other therapists employed at the facility were allowed to complete Part 1 of the survey, which collected basic information. To complete Part 2 of the survey, the therapists had to meet the following criteria: (a) currently practicing as an occupational therapist and (b) currently using hippotherapy in practice.

### **Instrument**

Researchers designed a two-part descriptive survey. Part 1 concerned the riding facility and hippotherapy in general, and Part 2 asked specific questions about the therapists' roles in the facility, the therapeutic activities they used, and their educational background and training.

### **Procedure**

Researchers used a descriptive survey design for this exploratory study. The primary emphasis was on gathering information on the following variables: scope of occupational therapy participation, role of the occupational therapist in a hippotherapy center, and occupational therapists' therapeutic use of the horse.

The researchers mailed surveys to the 101 occupational therapists and provided a follow-up reminder card. All returned surveys were coded and data were entered into a spreadsheet for analysis.

Researchers used SPSS Version 12.0 to generate descriptive statistics to explain the data.

### **Results**

Respondents represented 53 facilities from 30 states. In some cases, someone other than an occupational therapist completed Part 1 of the survey if the occupational therapist targeted was no longer employed at the facility. Data collected from these respondents on Part 1 of the survey were included in the results because they reflected the general employment patterns of the facilities. If respondents who were not occupational therapists completed Part 2 of the survey, this information was disregarded.

#### **Scope of Occupational Therapy Services**

Of the 53 respondents, 62% reported that their facility employed at least one occupational therapist at least part time. Of these, 24.5% employed one full-time occupational therapist and one full-time physical therapist, 22.6% reported employing two occupational therapists, and 11.4% reported employing two physical therapists. Among the remaining respondents, 9.4% reported employing three or more occupational therapists and physical therapists (see Figure 1).

The 33 occupational therapists who completed part 2 of the survey reported working with clients representing a variety of age groups and conditions. Most reported working with children: 90.6% worked with 1 to 5-year-olds, 96.2% with 6- to 10-year-olds, 83% with 11- to 15-year olds, and

58.5% with 16- to 20-year-olds. The majority of the occupational therapists also reported working with adults (60.4%). Client conditions were fairly diverse and included cerebral palsy (96.2%); sensory integration dysfunction (94.3%); autism (92.5%); developmental delay (92.5%); Down syndrome (79.2%); learning disabilities (71.7%); neuromuscular disorders, such as multiple sclerosis (35.8%); visual impairments (11.3%); and psychosocial disorders (11.3%).

### **Role of Occupational Therapy**

Respondents indicated that the role of the occupational therapists in their facilities varied. Most (79%) reported that they functioned as occupational therapists who provide the full scope of occupational therapy services, and 26.4% stated that they functioned as a side-walker during actual hippotherapy sessions. Seventeen percent of the respondents considered themselves consultants to the programs, and 50.9% reported that they had additional roles, such as director, owner, instructor, coordinator, or volunteer.

The respondents reported on the broad types of activities they used during intervention sessions (see Figure 2), including gross motor (84.9%), sensorimotor and motor planning (66%), and fine motor (56.6%). Additionally, 62.3% reported that they complete cognitive-perceptual activities during hippotherapy sessions, and 13.2% complete socialization activities.

### **Therapeutic Use of the Horse**

Most of the respondents (84.9%) reported that they were certified in hippotherapy. Typically, this involves a designation as a Hippotherapy Clinical Specialist (HPCS) or that the therapist is a registered therapist with the American Hippotherapy Association. In order for an occupational therapy practitioner to become certified as an HPCS, the American Hippotherapy Association (2007) requires the individual to be licensed as an occupational therapist, have three years of practice experience and 100 hours of hippotherapy experience, and possess independent riding ability. In addition, the individual must pass the Hippotherapy Clinical Specialist Certification Exam. The HPCS credential is valid for five years. To recertify, the individual must retake and pass the exam, complete continuing education coursework in equine topic areas (e.g., training, riding), hands-on clinical course work within his or her own discipline, and course work related to hippotherapy in general, as well as provide evidence of scholarly activity in hippotherapy (e.g., publications, workshop faculty).

Other education and training possessed by the respondents included neurodevelopmental treatment (15.1%), background or skills in the use of the sensory integrative frame of reference (45.3%), and previous background with horses (15.1%). Respondents reported that their use of the sensory integrative frame of reference (34%) and a holistic approach to treatment (15.1%) uniquely contributed to hippotherapy. They also indicated that their goal areas are different (39.6%) from those of other therapists at their facility, and suggested that their chosen activities for hippotherapy

are more purposeful (18.9%) than those of the other therapists. Overall, 60.4% respondents reported that they had a different focus than other therapists in that they use the horse to improve functional outcomes.

## **Discussion**

Based on the survey results, occupational therapists appear to play an active role in the delivery of hippotherapy services. It is important to note that the facilities included in this study were selected because an occupational therapist was listed as practicing there. Not all facilities, however, paid the occupational therapists; in some cases the position was volunteer. However, of the 62% formally employing at least one part-time occupational therapist, 32% employed more than one full-time occupational therapist, reflecting a strong representation of occupational therapists in this field of practice.

Hippotherapy also appears to be a flexible and wide-reaching modality. The respondents reported serving a diverse population of clients that included both adults and children with many different conditions. Most of the respondents reported intervening with children under 15 years of age, and many of the conditions they reported treating reflected the range seen in other areas of pediatric practice and may reflect parents seeking alternative therapies for their children (Sanders et al., 2003). As well, more than half of the respondents reported treating adults and disorders typically associated with adults (e.g., multiple sclerosis).

The activities the therapists used during sessions with a horse included a variety of sensory, gross, and fine motor activities typical of pediatric and adult practice (Case-Smith, 2005; Rodger, Brown, & Brown, 2005; Woodward & Swinth, 2002), suggesting that the occupational therapists are using the horse as a modality appropriate for a number of different types of activities. The horse provides additional motion and unpredictability and allows for a great variety of sensorimotor input during the completion of typical therapeutic activities. Further, a level of interaction between horse and rider allows for both sensory and emotional depth that are perhaps unavailable with other modalities (e.g., the warmth of the horse; the interaction of horse and rider; the verbal and nonverbal communication among horse, rider, and therapist).

The therapists generally reported using the horse as a modality to reach other functional outcomes that are typical of occupational therapy intervention (AOTA, 2002). In addition to assisting the client in achieving specific skills, the activity of riding a horse can be used generally to promote play, leisure, and social participation (All, Loving & Crane, 1999). In using skills such as grooming and caring for the horse, which the therapists reported using, hippotherapy may also promote general caretaking and social and emotional bonding.

In light of the possibility of using the horse to promote socialization, it was interesting that the occupational therapists represented in this study differed from the literature in the area of social participation and psychosocial benefit. The literature describes improved social skills and self-esteem as benefits of equine-assisted therapy (Glazer, Clark, & Stein, 2004; MacKinnon et al., 1995; MacKinnon, Noh, Laliberte, Lariviere, & Allan, 1995; Rolandelli & Dunst, 2003), yet only a small proportion of the respondents reported using socialization activities during the intervention sessions. Other factors may explain this finding, such as the use of individual intervention sessions, but these are beyond the scope of this study.

Respondents at these facilities appear to have a role as an occupational therapist first and a hippotherapist second. The majority of the occupational therapists reported that they focus on functional outcomes and that the horse is a method for meeting functional goals. For the most part, these occupational therapists appeared to perceive their role as different from the other therapists and reported that they bring specialized knowledge and skills to this method of intervention. As reported in other surveys, the use of the sensory integrative frame of reference appears to be an area where occupational therapists believe they make a unique contribution (Case-Smith, 1997; Case-Smith & Miller, 1999).

### **Limitations and Directions for Future Research**

This exploratory survey provides descriptive information from a convenience sample of facilities that have employed occupational therapists at some time. It is unclear whether the non-respondent facilities did not employ occupational therapists or merely did not respond for other reasons. The results reported are only the perceptions of the respondents. However, based on the percentages of facilities that reported employing occupational therapists, further examination of the actual use of equine-assisted therapy in occupational therapy may be justified. The occupational therapists in this study reported that they contributed unique focus and goals. However, although the efficacy of hippotherapy has been examined in other professional arenas, its use to meet occupational therapy goals needs further investigation. Finally, a study that compares occupational therapists' use of hippotherapy with other disciplines, such as physical or speech therapy, would provide a deeper understanding of the clinical uses of this method of intervention.

### **Conclusion**

Occupational therapy services provided through hippotherapy allow the therapist to focus on multiple levels of intervention at one time, client factors, performance skills, and occupational performance (AOTA, 2002). Using the motion of the horse and activities on the horse facilitates motor and cognitive skills, but the act of being on the horse promotes play, leisure, and an avenue of social participation for the clients involved in this activity. The benefits of the human-animal interaction are well

supported, and therapists who use animals in their interventions report benefits above and beyond the physical. Using animals in therapy appears to be well suited to the profession of occupational therapy because of its focus on play, leisure, and social participation.

The occupational therapists in this study reported that they perceive that they provide a unique focus within the field of hippotherapy. Of the responding facilities, occupational therapists were as likely to be employed as were physical therapists, suggesting that hippotherapy may be an area where occupational therapists' expertise may be highly valued and particularly beneficial. Clearly, further research is needed to examine the efficacy of occupational therapy and hippotherapy and to further define occupational therapy's role in relation to other professions that use the same modality. For those occupational therapists interested in more information or in training courses for hippotherapy, please see the Web sites for the North American Riding for the Handicapped Association at [www.narha.org](http://www.narha.org) and the American Hippotherapy Association at [www.americanequestrian.com/hippotherapy.htm](http://www.americanequestrian.com/hippotherapy.htm).

### **Resources**

North American Riding for the Handicapped Association: [www.narha.org](http://www.narha.org)

American Hippotherapy Association: [www.americanequestrian.com/hippotherapy.htm](http://www.americanequestrian.com/hippotherapy.htm)

American Hippotherapy Association's Resource Index:  
[www.americanhippotherapyassociation.org/aha\\_resources.htm](http://www.americanhippotherapyassociation.org/aha_resources.htm)

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