Background

There are few options for individuals with chronic TBI who address the treatment of the cognitive-linguistic deficits, as well as the emotional or behavioral changes which may impact on communication and community reentry.

Studies suggested that animals may play a role in improving communication (Cawley et al., 1986; Macauley et al., 2004; Barrie-Blackley et al., 2005). Since stress may cause or exacerbate communication problems such as a voice disorder, stuttering, and perseveration (Lundgren, 2004; Lundgren, 2004a), reducing stress may facilitate improved communication (Murray and Kim, 2004).

The purpose of this program is to (1) provide an augmentative/alternative approach to treating cognitive-linguistic deficits following TBI (2) provide graduate students the opportunity to work with individuals with TBI outside of the traditional clinical setting, and (3) provide activities to enhance the quality of life for individuals with TBI.

Methods

10 participants with moderate to severe TBI, ranging in age from 21-45, were enrolled in the Therapeutic Riding Program.

Participants received two weeks of intensive training focused on improving cognitive-linguistic skills.

Each participant received one-to-one intervention with a graduate student, supervised by a faculty clinician.

Participants rotated through three cognitive-linguistic training stations:

1. Classroom
2. Barn, and
3. Riding

Therapeutic Riding Program

Classroom

All classroom activities related to the themes of the day and were planned and executed by the Graduate Clinician.

One example of a classroom lesson was “Horse Safety.”

• Safety rules were written on a large poster board.
• Safety rules were reviewed each day to facilitate memory, problem-solving, and sequencing abilities.

Classroom activities were multisensory and adapted to accommodate the various skill and ability levels of the participants.

Additional lessons included Horse Anatomy, Horse Food, Horse Breeds, Jobs, Horse Farms, and Blacksmithing.

Barn

Ten different barn activities were presented. Each activity was broken down into component parts. Activities tapped attention, memory, and sequencing skills.

One example of a barn activity was “Wrapping the Leg.”

1. Put the horse in the cross ties.
2. Get cotton underwrap, flannel wrap, and liniment from the tack room.
3. Put a small pool of liniment in the palm of your hand and massage gently into the horse’s leg.
4. Wrap the cotton under wrap around the leg, neatly and evenly, from front to back.
5. Wrap the flannel around the leg starting in the middle of the cotton, moving from front to back and then around.
6. Use the Velcro on the flannel to secure the wrap.

Riding

The therapeutic riding center focused on carryover of skills learned in the classroom and barn centers and were based on the theme of the day.

Activities targeted memory and sequencing skills while teaching horsemanship and fostering independence both on and off the horse.

Survivors participated in team competitions that targeted use of reins, negotiating obstacles, and problem solving.

Physical skills addressing the specific needs of each rider were designed to improve walking, hand and arm movement, trunk control and balance on and off the horse.

References


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