

A Horse of a Different Color

Hippotherapy brings out the best in children with special needs

By Sandy Keefe, RN, MSN

Wok-on, 'Kittles, wok-on!" Allie exclaims, her face glowing with happiness. Seated astride a graceful brown gelding, helmet firmly strapped to her head, my daughter gently holds the reins in both hands and grips the horse's flank with both knees. Smiling broadly as Skittles walks slowly around the arena, Allie visually scans the fence line. Spying a white card half-way down the dusty track, she carefully maneuvers the reins to guide Skittles to the card before pulling back on the reins and enunciating, "Whoa." When the horse comes to a halt, Allie peers at the card and reads "saddle." Her instructor and the volunteers working with Skittles cheer as Allie begins to scan the rest of the area for another card.

From Allie's point of view, she is engaged in a highly pleasurable ride on Skittles that is spiced up with an intriguing treasure hunt for word cards. While everyone at the arena wants her to enjoy her ride, we also view the hour-long session as part of a hippotherapy program designed to meet specific speech and language goals. Under the guidance of Allie's speech-language pathologist, a riding instructor and volunteers carry out activities designed to treat the severe developmental apraxia of speech that is one of the deficits secondary to Allie's Down syndrome.

Each rider in the hippotherapy program has a number of built-in accommodations and supports that are tailored to the cognitive abilities, physical impairments and judgment level of the rider. Allie, 11, has been riding for more than eight years and can direct the horse with the reins, her feet and her knees. A horse leader holds a lead rope for her horse Skittles, and a side-walker strides along next to the horse without any body contact with Allie.

Marshall, a 9-year-old with severe autism, is highly unpredictable. He requires a horse leader as well as two side-walkers who firmly grip his thighs to keep him in place. Josh, meanwhile, is a young adult who is in rehabilitation following a traumatic brain injury. He has demonstrated such competence that he rides alone and follows his instructor's advice from across the arena.

The term "therapeutic riding" describes programs that allow individuals with disabilities to ride horses and engage in other equine activities. There are a number of therapeutic horseback riding programs that allow children and adults with special needs to ride, groom and enjoy horses in a safe setting.

Hippotherapy, on the other hand, occurs when a therapist uses the movement of the horse as a treatment tool to improve neuromuscular function.¹

Why bother using a horse for therapy? After all, horses are expensive animals that require extensive care and love and a high degree of commitment. A lot of preparation is involved in a hippotherapy session: grooming the horse, putting on the tack, and preparing the person with disabilities both physically and cognitively. In addition,

walking around an arena to provide therapy certainly calls for more stamina and dedication than sitting on the floor or at a table.

However, according to the North American Riding for the Handicapped Association (NARHA), "The horse's walk provides sensory input through movement, which is variable, rhythmic and repetitive. The resultant movement responses in the patient are similar to human movement patterns of the pelvis while walking. The variability of the horse's gait enables the therapist to grade the degree of sensory input to the patient and then use this movement in combination with other treatment strategies to achieve desired results. Patients respond enthusiastically to this enjoyable experience in a natural setting."¹

NARHA recommends hippotherapy for children and adults with mild to severe neuromusculoskeletal dysfunction. According to the association, hippotherapy may help to modify abnormal tone, impaired balance responses, impaired coordination, impaired communication, impaired sensorimotor function, postural asymmetry, poor postural control, decreased mobility, and limbic system issues related to arousal, motivation and attention.

Functional limitations relating to the following general areas may be improved with hippotherapy:

- gross motor skills, such as sitting, standing and walking;
- speech and language abilities; and
- behavioral and cognitive abilities.¹

"However, hippotherapy is not for every patient," NARHA points out. "Specially trained health professionals must evaluate every patient on an individual basis."¹

Within that evaluation framework, the following medical conditions may be indications for hippotherapy: cerebral palsy, cerebral vascular accident, developmental delay, Down syndrome, functional spinal curvature, learning or language disabilities, multiple sclerosis, sensory integrative dysfunction and traumatic brain injury.¹

Allie was enrolled in a hippotherapy program with the express intent of improving her speech and language in a fun environment. The program allows her speech-language pathologist to plan a number of activities that address specific goals from Allie's individual education plan (IEP). Over the years these activities have addressed new horse-related vocabulary words, targeted specific articulation areas and phonological processes, reinforced grammatical structure, and included both scripted and spontaneous social interactions.

When Allie was 3 and 4 years old, she practiced color and shape words, letters and numbers by identifying symbols on cards placed around the arena. Using this card placement, the instructor encouraged Allie to visually scan for the cards and then use the reins to guide her horse to them. Her side-walkers utilized simultaneous spoken language and simple sign language to help Allie integrate appropriate concepts as she signed and spoke the words.