

Tall & Proud

Hippotherapy offers effective PT tool with intrinsic patient benefits

By Marnie McLeod Santoyo

As Sydney Abraham trots around a ring on the back of her horse, Odie, she looks like any other child on horseback, but Sydney is not a typical rider. Upright and smiling, the 6-year-old girl, who is blind and has cerebral palsy, is surrounded by her physical therapist, Lori Garone, MA, PT, HPCS, a horse handler, and two volunteers. She is in the middle of her weekly hippotherapy session.

After the 30-minute session, Garone gently places her on the ground. Sydney, who is not yet walking independently, is carefully guided by the circle Garone's arms make around her wobbly body. She takes six steps toward her dad without holding on to anything — the most she has ever taken alone.

"We plan on continuing hippotherapy until they won't take her anymore," says Sydney's father, Michael Abraham of Mountain View, Calif. "Hippotherapy gives her a sense of orientation and balances her equilibrium while the horse's gait emulates the shifting of hips and the motion she needs to walk."

Hippotherapy is a therapy option available to PTs who treat special needs patients with neuromusculoskeletal dysfunction. In hippotherapy — which translated literally means "treatment with the help of a horse," derived from the Greek word for horse, "hippos" — patients are not learning how to ride. Instead, the horse is a therapy tool as part of an integrated treatment program.

"A horse really offers the best sensory tool for vestibular, proprioceptive, and kinesthetic movement as well as tactile input," says Garone, of the National Center for Equine Facilitated Therapy (NCEFT) in Woodside, Calif. "When you look at the rhythm and the 3-dimensional movement of the horse's pelvis, it mirrors movement of the human pelvis."

How it works

According to the American Hippotherapy Association (AHA), "the conceptual framework is based on dynamic systems theory, integrated with principles of motor learning, sensory integration, and psycholinguistics." It is used not only for achieving PT goals but also to support occupational and speech therapy goals. In physical therapy, hippotherapy is generally integrated as a part of a patient's overall treatment program.

Hippotherapy PTs begin by establishing a treatment program based on the therapist's own evaluation and a patient's functional goals. Using their traditional training and hippotherapy experience, the PT determines if equine movement will be effective in helping a patient to achieve his or her functional outcomes. Depending on a patient's goals and needs, the horse is then used in various ways. Some of the benefits patients receive from hippotherapy include: improved potential for walking; support of hip development, improved hand-eye coordination, posture and balance; stimulation of truncal muscles, and even the promotion of interactive play to draw out children with autism spectrum disorders.

Patients are seated on a padded blanket to protect the horse's back, and are surrounded by a team that includes a PT, two volunteers flanking the horse, and a horse handler guiding the animal from behind via a bridle and long reins. Sitting without a saddle, patients are able to respond actively to the movements of the horse. Riding "bareback" also allows the animal's natural warmth to reach patients' legs and relax their muscles.

As the patient and team move around the ring, the PT continually modifies equine movement during treatment. Depending on functional goals, patients ride forward, backward, sideways, and sometimes even standing.

Today there is widespread acceptance of hippotherapy by medical and educational communities, such as the APTA.

"Hippotherapy is just another tool like a ball or swing," says Steve McKenzie, MA, PT, HPCS, staff therapist at Little Bit Therapeutic Riding Center in Woodinville, Wash. "What I like about hippotherapy is the horse offers continual proprioceptive and deep pressure work that helps calm a child's nervous system with every step. All the while, the horse takes more than 2,000 steps in 30 minutes, giving patients posterior and anterior movement that you can't replicate in the clinic."

History of hippotherapy

Many of the concepts used in hippotherapy today were derived from principles developed and practiced in Europe since the 1960s; however, concepts that laid the groundwork for hippotherapy go back as far as 1780. French surgeon J.C. Tissot referenced in his book *Medical and Surgical Gymnastics* that riding a horse offered the most beneficial gait. Centuries later at the 1952 Olympics in Helsinki, equestrian silver medalist, Liz Hartel, shared how riding helped her recover from polio.

Shortly thereafter, therapeutic riding centers began opening throughout Europe, Canada, and the U.S. The Swiss, Germans, and Austrians took the idea a step further to use the horse as a therapy tool. This early connection between therapeutic riding and hippotherapy often makes for confusion between the two practices.

"Hippotherapy is a medical model using equine movement for therapy, while in therapeutic riding the goal is to teach riding to people with disabilities," says Bonnie Cunningham, MA, PT, HPCS of Jeffersonville, N.Y. "My goal as a PT using hippotherapy

is not to get a patient to ride. I'm using the movement of the horse as a tool to achieve PT goals."

Hippotherapy came to the United States in 1987 when a group of 18 American and Canadian therapists traveled to Germany to learn more about the methodology. From that trip, the team developed a standardized hippotherapy curriculum, which they shared with other PTs and OTs around North America. The original group of 18 was honored this past spring for their groundbreaking work at AHA's national conference.

Both Garone and Cunningham were among the fortunate few who learned the early principles of hippotherapy from members of the original group who went to Germany. For both, combining their mutual love of riding horses with their PT careers was a dream come true.

"When I went to volunteer at Pegasus Therapeutic Riding in Stamford, Conn. in 1987, my plan was to volunteer in their therapeutic riding program," says Cunningham, who now works exclusively as a hippotherapy PT. "I didn't realize this group had just come back from Germany, but I was fortunate to have the opportunity to train with them."

As a PT student before hippotherapy came to the U.S., Garone says she wanted to write her master's thesis on the topic, but was dissuaded by her professor, especially since all of the studies and reports at the time were written in German. Shortly after graduation, the group from Germany returned and Garone jumped at the chance to train with them.

"Hippotherapy has changed a lot over the years," observes Garone, who teaches and speaks nationally for the AHA. "Today, we combine treatment on and off the horse to offer a total plan of care for the child."

Training for therapists and horses

Although there is currently no degree program in hippotherapy for PTs, the AHA strongly encourages therapists to pursue specialized training for administering the therapy. The association offers educational courses as well as board certification — Hippotherapy Clinical Specialist (HPCS) — which recognizes advanced knowledge and experience with hippotherapy.

While many hippotherapy PTs come to the practice with a love of horse riding, prior horse experience is not required.

"Before my pediatric internship at NCEFT, I had been on a horse maybe five times in my life," explains McKenzie, who moved from his internship into a full-time staff therapist position using equine therapy. "Riding experience isn't required as long as you have good people around you. I learned a lot in my internship, after which I started taking lessons and bought my own horse."

For facilities, the AHA offers an accreditation process for centers where licensed health professionals use equine movement as part of a patient's treatment plan.

Horses, too, must undergo special training to be considered safe to work in a hippotherapy environ-

ment. Not only are the horses surrounded by at least four people in a ring, they also have a wiggly rider on their back — a patient who may be throwing a ball, turning around, or standing up.

"It takes a really special horse to work in this setting," McKenzie notes. "A horse, by nature, will run away first and look later. A hippotherapy horse must be able to tune out all the people and activity around them and focus on the handler."

McKenzie says at Little Bit, they get 100 calls a month from people who want to donate their horses for hippotherapy. Of those 100, the staff might consider three of them and select only one horse for a 60-day trial and training.

Hippotherapy — more than PT goals

Therapists who work in the field say hippotherapy does more than help a patient meet therapy goals. They see the intrinsic benefits patients get from equine therapy.

"Children don't perceive their hippotherapy sessions as work," Cunningham says. "For people who don't have a fear of animals, the motivation is strong. When they are on the horse, no one knows they can't walk. I've seen hippotherapy build confidence and self-esteem."

While PTs generally don't work on speech goals, non-verbal children may utter their first words or sounds during a hippotherapy session. As a result, more and more speech therapists are working with PTs to incorporate hippotherapy into their treatment plans while others are training in hippotherapy themselves.

"As a PT, I've never worked on speech, but I find I am dealing with it more in my sessions," Garone says. "Hippotherapy improves all systems of the body through the horse's movement. So, if your PT goal is to improve posture, that work helps improve respiration and the coordination of swallowing with breathing. Working on the horse also improves cognition, so it's not unusual for us to hear a child's first words during a session."

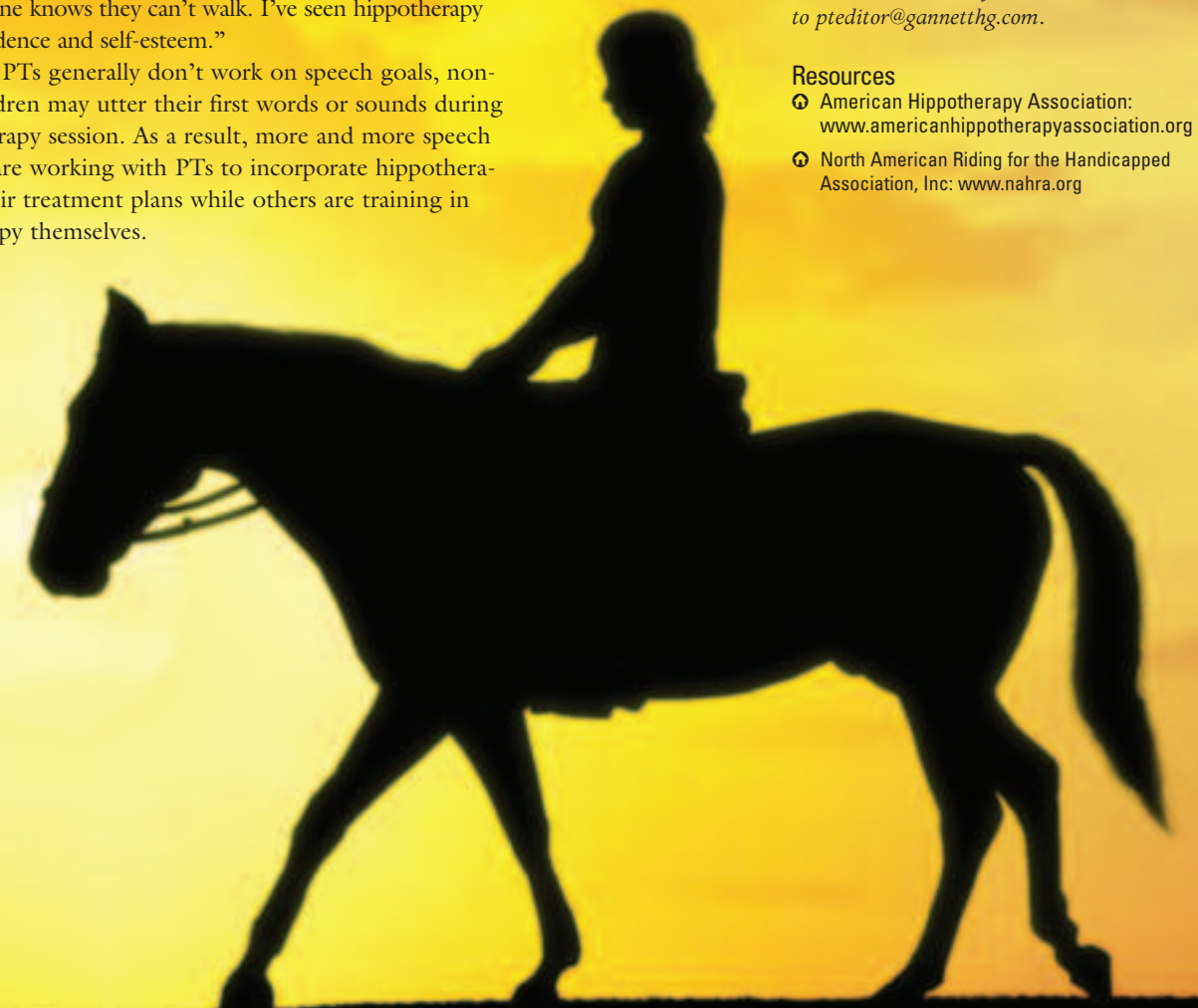
Other times, a child's progress is guided by something more. "I had a 2-year-old boy who was not walking, crawling, or talking," McKenzie recalls. "When I initially assessed him, my goal was just to get him sitting independently. Within six months he started crawling and pulling up to standing. He later started walking and talking. He loved his horse and he loved coming to his sessions. The big draw of this environment is there is such an emotional bond that forms between patients and their horses. You can't measure the impact of that bond, but it's there." ●

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Resources

- ① American Hippotherapy Association: www.americanhippotherapyassociation.org
- ② North American Riding for the Handicapped Association, Inc: www.nahra.org



"Hippotherapy improves all systems of the body through the horse's movement."