

HHRF Lay language Article.

Using horses in therapy for children with Autism Spectrum Disorder

Children on the Autism spectrum are often reported to be “clumsy kids” and there is evidence that shows clear differences in balance and stability between kids with Autism Spectrum Disorder (ASD) and typically developing children. Along with their communication difficulties, this frequent clumsiness impairs participation in many typical childhood activities and may make it harder to connect with their peers. Hippotherapy (HPOT), the use of horses in therapy, has been shown to improve balance and stability in children with Cerebral palsy and people with other neuromuscular disabilities. In 2011, HHRF funded a study to determine if HPOT could improve balance in children with Autism.

Thirteen children on the Autism Spectrum participated in twelve 45-minute weekly therapy treatments conducted by an occupational therapist or OT Assistant who used horses, their movement and related activities as a primary part of the OT treatment.

Changes in balance and stability were assessed using advanced motion capture instrumentation in the Human Performance Laboratory of the Program in Occupational Therapy at Washington University in St. Louis. Dr. Tim Shurtleff, OTR/L was the Principal investigator and worked with a team of OT students and treating therapists at two local EEAT centers in which OT’s used hippotherapy in their treatments. Results showed that balance and stability improved significantly. Several calculated variables indicated that participants became significantly better able to keep their center of gravity over their base of support, the hallmark of good balance. Improving balance may enable these children to participate in many activities which may have previously been difficult for them.

In addition to instrumented measures, the team also conducted interviews with parents and administered standardized outcome measures (completed by parents) of social responsiveness, sensory response, adaptive behaviors and outcomes at home, at school and on the playground to answer the “so what” question about whether the balance and stability changes that were measured after the mounted treatments really made a difference in the lives of the participants with ASD. Several “life outcomes” were found to be significant. Parents reported that participants learned to listen better, became less stubborn or sullen, showed higher levels of confidence during participation in leisure activities, played and interacted more and more appropriately with peers and they gained better body awareness.

Based upon these results, hippotherapy treatment may provide another alternative treatment that could enable children with ASD to participate more in typical activities of childhood with their peers.

400 words without title.