

From Tim Shurtleff, OTD, OTR/L
Motion Analysis Laboratory
Saint Louis University
St. Louis, Missouri

Our first wave of study kids (3) have finished their hippotherapy intervention and come back for post-HPOT testing. We had 12 recruits but lost one when the family decided the weekly drive (50 miles) was too great. We have had great support and enthusiasm from several local doctors, therapists and school districts. We have, however, been surprised at the difficulty to find kids who fit our criteria. We have found that many of the kids who fit have already ridden before. This is a credit to the recruiting of the five or six TR centers in the St. Louis area. Several kids washed out because they use Botox or for other reasons. Preliminary analysis of the movement data for the first three kids shows changes in head and trunk control which are very similar to those seen in the pilot study. This is very encouraging because if the others show the same results, we will be able to report results to the medical and scientific community which are statistically powered to have more credibility than the small pilot study. The pilot study methods were so similar to those employed in this study that we can combine data from those six kids to have no questions about statistical power. We set our required number of participants at 12 expecting to lose one or two and still have sufficient statistical power, so we are in good shape. We are still looking for a 12th study participant.

We have three kids who just started their HPOT intervention in the summer session. Three are finished, one finishes tomorrow, the rest will finish in the next few weeks. They will then come back after another 12 weeks to be tested again to measure residual effect. All are very happy with the HPOT experience and want to continue. They wish they did not have to wait the three months for the final testing before they can go back to riding horses. They all report better balance, strength and control and feel it improves other parts of their lives.

Based on pilot results and strengthened by this extended effort using our new measures, we have submitted a grant to NIH to extend the study of hippotherapy further. We will not only assess motor control changes, but also functional improvements, gait, self-concept, participation and occupational performance. This study will extend the radius for recruiting to cities within a six hour drive from St. Louis. Therapy will be done remotely and testing will be done in St. Louis. We will have a control group who get an equivalent amount “traditional therapy” as the HPOT group. The support of the Horses and Humans Foundation to allow us to further refine our methodology strengthens our application to NIH for what will be the first randomized clinical trial of Hippotherapy, the gold standard for medical research.