

Pilot Study: Measuring the Effects of Therapeutic Horseback Riding on School-Age Children and Adolescents with Autism Spectrum Disorders

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Purpose:

This pilot study examines the efficacy of therapeutic horseback riding (THR) on improving self-regulation behaviors, adaptive skills, and motor skills in school-aged children with either autism or asperger's disorder when compared to a control group

Design/Methods:

This study had 42 participants ages 6 to 16 years old. There were 36 males and 6 females diagnosed with either autism or asperger's disorder. 38% of the participants had comorbid psychiatric conditions in addition to ASD and 33% of the participants were taking psychoactive medication. The study was a pilot study with an experimental and control group. 16 of the participants were placed on a 10-week waitlist and were used as the control group. Before the THR intervention the participants went through 2 screenings, one at the hospital, and one at the riding center to make sure that it would be safe for the children to take part in the therapy. They were also assessed in areas including: verbal skills, physical, cognitive, behavioral, communication, social, and sensory processing functioning and needs. They were also assessed on their behavior and cognition on the horse as well as their ability to ride. The THR was done by certified therapeutic riding instructors and was 1 hour long for 10 weeks. The specific measures that were examined in this study were self-regulation, adaptive and motor functions, which were assessed before and after the THR. The participants in the control group were assessed at the start of the study and then after their 10-week waiting period. They used the Aberrant Behavior Checklist-community to assess the participant's self regulation, the Vineland Adaptive Behavioral Scales—Interview Edition Survey Form to assess their adaptive functioning, and the Bruininks-Oseretsky Test of Motor Proficiency to assess their motor functioning. The THR sessions lasted for an hour and they focused on therapeutic and horsemanship skills. They had 2-3 riders in a session and the therapist set individual goals for each of the participants. The therapist included things like grooming and cleans up as part of the therapy process as well. After 10 weeks had past data was collected again from both the experimental and the control groups.

Results:

When looking at the data pre and post THR, the participants in the experimental group did show significant improvement in their self-regulation, stereotypic behavior, hyperactivity, inappropriate speech, adaptive skills, and motor skills. The control group did not show as many statistically significant changes indicating that the improvements were due to the THR.

Conclusion:

The study concluded that THR benefits children with ASD by improving their self-regulation, adaptive, and motor skills.

Strengths:

The strengths of this study included having both a control and an experimental group, they looked at ASD which is not as commonly studied as other disabilities when looking at THR, and they added some expressions from the parents about THR. It also evaluated many different variables.

Limitations:

The limitations of this study included not looking closely at the differences within the wide age range, there was a rater bias, and the two groups were not randomized controlled, and there is a lack of standardized THR interventions.

Future Research:

Future research should examine more in depth about what part of the THR experience was helping the participants and in what way, and continue to study the efficacy of THR with children with ASD.

Practical Applications:

This study shows that THR can be used as an intervention for children with ASD to help them improve their self-regulation, adaptive, and motor skills. This can be easily translated over to other therapies such as physical, speech, and occupational therapy. No matter who the therapist is, by improving these skills in a child, it can help them at school, home, and in other occupations that are important to them.

