

Therapeutic Riding for Children with Different Diagnosis Categories

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TR for children with Different Diagnosis Categories

Introduction

- Many children have special needs
 - e.g., autism spectrum, cerebral palsy, developmental delay
- Therapy sessions with professionals helpful
 - e.g., physical therapy, speech-language pathologist
- Animal therapy also shown to be effective
 - psychological, cognitive, social, physical benefits
 - TR has additional advantage:
 - child is an active participant in therapy



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Our Research

- Study reported here empirically evaluated benefits of TR for children of different diagnosis categories.
 - Research run in regular year riding sessions



- Research question:
 - Whether certain disorders, or particular aspects of any disorder, were specifically affected by participation in TR

The effects of therapeutic riding on children

Method - Participants

- All participants were from SARI TR centre
 - registered for regular session riding
 - Three, 10-week riding sessions
 - Initial N=19 (8 ♂, 11 ♀); average age = 8 y 9m
 - different diagnoses
 - e.g., global developmental delay, Down syndrome, autism spectrum disorder
- Study groups:
 - Autism Spectrum Disorder, Developmental Disability, “Other” (e.g., Down syndrome, FASD, etc.)





The effects of therapeutic riding on children

Method - Materials

- Data collected through questionnaires & checklists
 - Parents: “Camper Growth Index-Parent Survey”
 - Parents could add written comments at the end of the questionnaire
 - Researcher: “Camper Growth Index-Observational Checklist”
- N.B. Materials adapted for regular session study.

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Method – Materials (cont.)

- Four main domains measured:
 - Positive Identity, Social Skills, Physical Skills, Positive Values
- Eight constructs assessed:
 - self-esteem, independence, leadership, friendship skills, social comfort, peer relationships, physical skills, positive values
- Parent questionnaires: at pre- and post-TR
- Researcher observation checklists across the TR sessions – four time-points



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Results 1 - Questionnaires

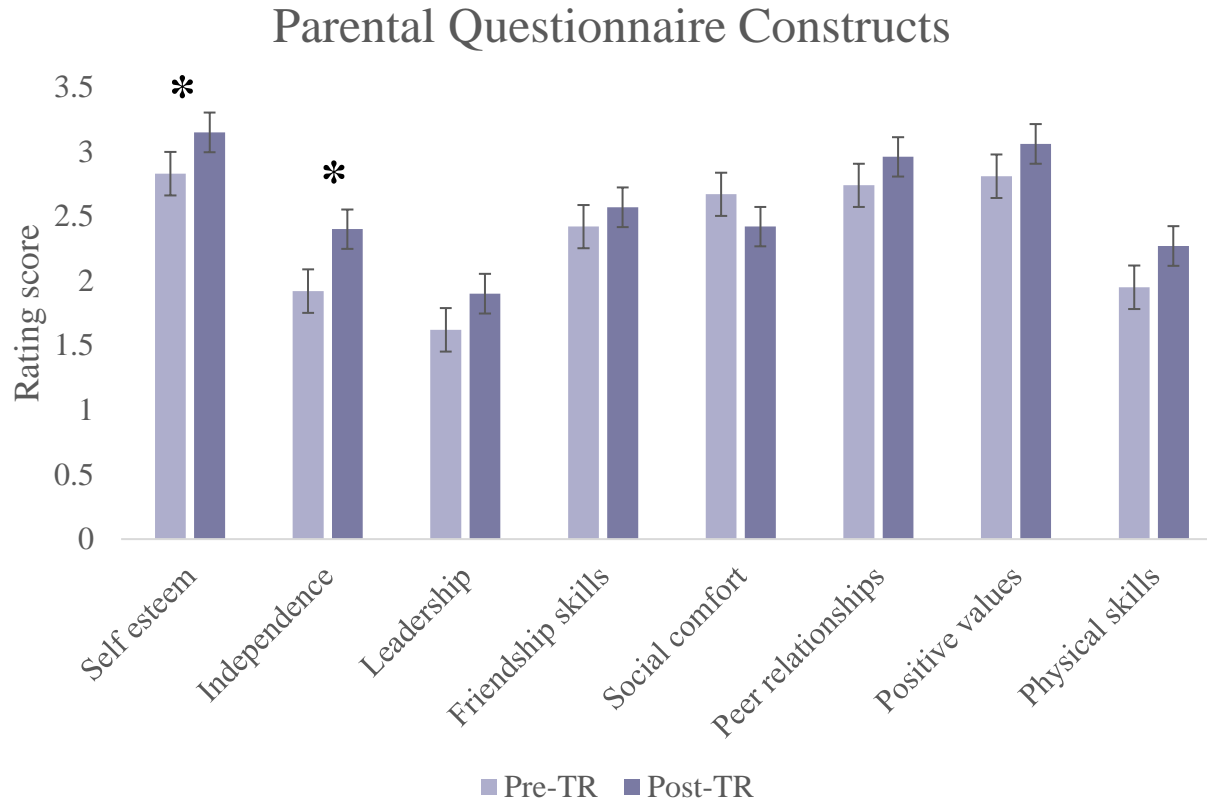


Figure 1. Parental questionnaire results for the two diagnostic groups (ASD and Other). Surveys were conducted prior to TR sessions and at the completion of the full TR program. (N = 17; * = statistically significant, $p \leq .05$)

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Results 2 - Observational Checklists

Observation checklist results, all disorder categories.

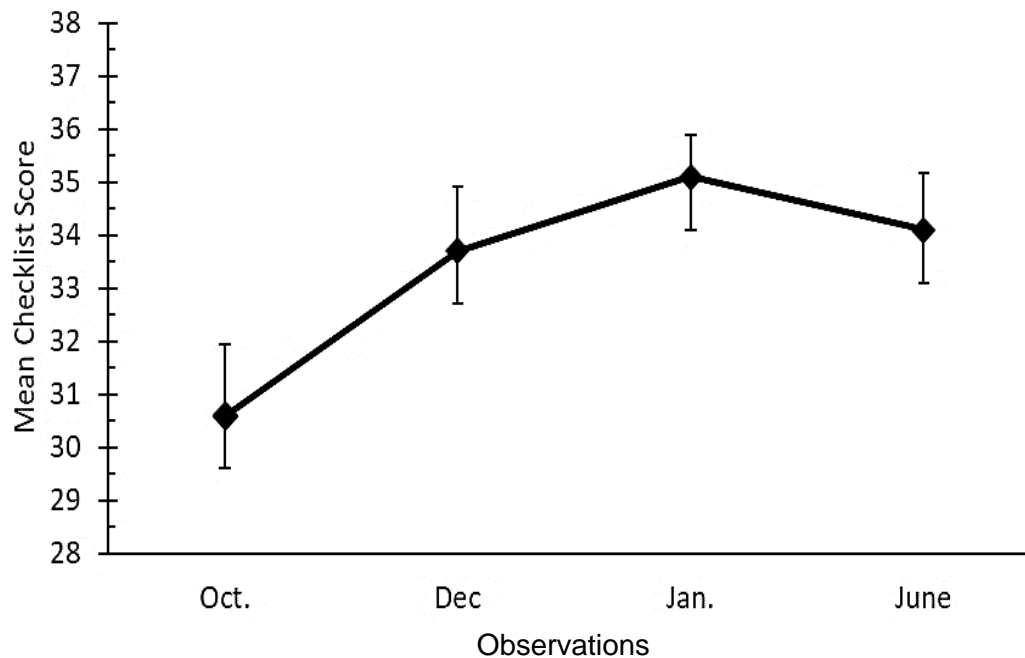


Figure 2. Mean checklist score collapsed across the two diagnostic groups (ASD and Other). Tests were conducted prior to TR (Oct), at the end of the first session (Dec.), at the start of the second session (Jan.) and at the completion of the TR program (June). N = 17.

Results 3 – Parent comments

- I love it a lot. It is so beneficial for [her] mental/emotional health and growth.
- This has been a great activity to create body awareness and control, as well as relaxation and present-time focus.
- He loves the experience! We find it to be calming for him and we see his confidence building ... improvements in his ... ability to self-correct, and be more independent ...
- ... it's amazing to do such a “regular” activity with our child. Riding is something many kids ... do, and [she] does, too!



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Results - Summary

- Questionnaires and checklists showed improvements in:
 - Positive Identity constructs overall, and for ASD particularly
 - General overall improvements, though not statistically significant
 - Positive views of TR effects from parents



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Discussion

- TR provides benefits for children with special needs
- Parent questionnaires: generally positive direction
 - Significant positive effects, particularly for ASD:
 - Positive Identity domains of Self-Esteem and Independence
 - Approaching significance for some other constructs
- Observer checklists:
 - significance for all four constructs:
 - Positive Identity, Social Skills, Positive Values, Physical Skills
 - Improvements maintained across time

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Discussion (cont.)

- Benefits found of TR for children with special needs
 - helpful in all areas of their development.
 - for any diagnosis category, TR is beneficial
- Therefore: further research necessary:
 - larger numbers of participants
 - investigate specifics -
 - particular behaviours, interventions



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Conclusions

- Overall, positive effects
 - especially for those with ASDs
 - physical, social and psychological benefits of TR for all children with special needs





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Further Study/Suggested Readings:

- Bass, M. M., Duchowny, C. A., & Llabre, M. M. (2009). The effect of therapeutic horseback riding on social functioning in children with autism. *Autism Development Disorder, 39*, 1262-1267.
- Carey, A. D., Murray, S. J., & Barnfield, A. M. C. (2013). The effects of therapeutic riding (TR) on children. *Scientific and Educational Journal of Therapeutic Riding, 2012/13*, 10-35.
- Hemingway, A., Carter, S., Callaway, A., Kavanagh, K., & Ellis, S. (2019). An exploration of the mechanism of action of an Equine-Assisted Intervention. *Animals, 9*, 303. <https://doi.org/10.3390/ani9060303>.
- Peters, B. C., Wood, W., Hepburn, S., & Merritt, T. (2020). The feasibility and acceptability of occupational therapy in an equine environment for youth with Autism Spectrum Disorder. *Research in Autism Spectrum Disorders, 101695*.
- Thurber, C.A., Scanlin, M.M., Scheuler, L., & Henderson, K.A. (2007). Youth development outcomes of the camp experience: Evidence for multidimensional growth. *Journal of Youth and Adolescence, 36*, 241-254.

Thank you!



Questions?

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