

## **Title: Volitional change in children with autism: A single-case design study of the impact of hippotherapy on motivation**

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**Major Finding:** Three children with autism demonstrated increased volition over the time that they participated in a hippotherapy program, providing preliminary evidence that improvements in volition may be a benefit of hippotherapy for this population.

### **Participants:**

- Three children with autism
  - Ages 4 to 6
  - No other medical or psychiatric diagnoses

**Method:** A-B-B design with each participant serving as own control. Children were observed, videotaped, and rated by 2 trained observers using the Pediatric Volitional Questionnaire (PVQ) as they participated in a standardized play activity before beginning hippotherapy, after 8 sessions, and after 16 sessions.

**Analysis:** Each participant's PVQ scores were plotted and visually inspected to determine patterns of volitional change.

### **Findings:**

- All 3 participants presented with increases in volition from baseline to the final observation.
- Patterns of volitional change varied among participants.
- Inter-rater reliability was achieved using the PVQ; therefore, it may be possible to determine the presence of volitional change in children with autism who are recipients of hippotherapy.

**Conclusion:** Motivation appears to improve in association with hippotherapy for children with autism.

**Implications for future research:** Future research could involve replicating this study's procedures with more rigorous designs, such as multiple-baseline single subject studies and larger experimental studies with a control group.

### **Evidence- based practice implications:**

- **Hippotherapy for children with autism may result in improvements in volition that may be observable even outside of the therapy session itself.**
- **The PVQ may be an effective tool for detecting volitional change in children with autism.**

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