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## The effect of 14 weeks of gait cycle in autism spectrum disorder

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The term hippotherapy refers to how occupational therapy, physical therapy, and speech-language pathology professionals use evidence-based practice and clinical reasoning in the purposeful manipulation of equine movement to engage sensory, neuromotor, and cognitive systems to achieve functional outcomes (AHA, 2016). This paper discusses the effect of 14 weeks of hippotherapy on Gait Cycle (length of steps, speed of steps, number of steps per minute, gait cycle duration) of individuals with autism spectrum disorder. The participants consisted of 24 males between 7-18 years old, diagnosed with autism spectrum disorder and randomly placed in experimental and control groups (N=12) for each group. The experimental group participated in 14 weeks of hippotherapy sessions. The control group did not attend in any hippotherapy or any physical activity outside of their ordinary life during the research period. The statistical analysis show significance in the scores of the Gait Cycle (length of steps, gait cycle duration, number of steps per minute, speed of steps) of the experimental group versus the control group as compared with the time before the exercises ( $p=0.027$ ), ( $p=0.001$ ), ( $p=0.0001$ ), ( $p=0.001$ ). The result has shown 14 sessions of hippotherapy had a positive effect on Gait Cycle of people diagnosed with autism spectrum disorder, with being in unstable level and improvement in balance systems and physical stature, especially flexibility and strength.

### Biography

Sara Mirzabeigi Fini has completed her Master's degree in Physical Education and Sport Science from Islamic Azad University, Islamshahr branch in 2015. She is a member of disabled and veteran committee and research committee of Equestrian Federation of Iran. She attended some national and international conferences. In addition, she works at physiotherapy clinic as an Assistant. Her research interests include Rehabilitation and Hippotherapy in people who suffer from physical and mental disability.

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