EQUINE-ASSISTED SERVICES VERSUS HORSE SIMULATOR ACTIVITY FOR FUNCTIONAL ABILITY IN PARKINSON'S DISEASE

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PROJECT SUMMARY:

This project investigates innovative, accessible movement based interventions to improve functional ability, balance, and confidence in individuals living with Parkinson's disease. Parkinson's disease is a progressive neurological condition that often leads to impaired mobility, postural instability, and an increased risk of falls, significantly affecting quality of life. While physical activity is known to help manage symptoms, access to effective and engaging interventions remains a challenge for many individuals.

The purpose of this study is to compare the effects of a short term, three day intensive equine assisted services program with a horse simulator intervention using the Miracolt system. Both interventions emphasize rhythmic, symmetrical movement patterns that mimic human gait and aim to improve balance, coordination, and functional mobility. Participants complete standardized physical fitness assessments and fall risk questionnaires before the intervention, immediately after, and again one month later to examine both immediate and retained benefits.

By directly comparing live equine assisted services with a mechanical horse simulator, this project addresses a critical gap in Parkinson's disease rehabilitation research. The findings may help determine whether a simulator based approach can provide similar functional benefits to traditional equine assisted services, offering a safer, more accessible, and cost effective option for individuals who may not have access to live horses. Ultimately, this work supports creative, interdisciplinary approaches to health and rehabilitation while promoting inclusive and innovative solutions for individuals with neurological conditions.