## The Effects of Outreach Groups on Persons With Parkinson's Disease

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Abstract: In the United States, an estimated 1 million Americans are affected by Parkinson's Disease (PD). This results in roughly \$52 billion dollars in related costs and expenses. PD is a chronic neurodegenerative disease with no cure, and affected person's have a decreasing quality of life once diagnosed. Much research has been conducted on alternative forms of treatment, such as dancing and singing, as opposed to medication. The Neurophysiology Lab at Iowa State University (ISU) encourages participation of those with PD in outreach groups which include boxing, dancing, yoga, and singing, to help reduce symptoms. The purpose of this study is to evaluate the long-term effects of outreach groups on the health of people with Parkinson's Disease. We will measure motor and cognitive symptoms, physical activity and fitness, and quality of life/mental health in people with Parkinson's Disease using the Unified Parkinson's Disease Rating Scale (UPDRS), Montreal Cognitive Assessment (MoCa), Parkinson's Disease Questionnaire (PDQ-39), accelerometry (ActivPal), and additional survey items. We will take a baseline assessment of our participants. They will retest after six months of regular participation in one or more of the four outreach programs offered at ISU. With the data collected, an analysis of the results before and after intervention will be completed. Our results will be compared against the results from a multi-site phase 3 clinical trial (SPARX3), to see how participation in outreach programs compares against a traditional exercise intervention. This study is currently in the planning stages. However, we expect our findings will shed light on the effects of the outreach programs and exercise in persons with Parkinson's Disease. Future studies might address the interactions between physical activity, quality of life, and medication use in persons with Parkinson's disease.