

## **Physical Activity Behavior in Persons with Parkinson's Disease**

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### **ABSTRACT**

Parkinson's Disease (PD) is the second most common neurological disorder affecting the musculoskeletal function, respiratory function, and laryngeal function. Despite these dysfunctions, persons with PD (PwPD) are still able to positively adapt to exercise training. **PURPOSE:** The purpose of this study is to investigate changes in physical activity (PA) in PwPD that participate in a long-term boxing training program designed for PwPD. This is a 1-month, preliminary analysis of a larger 12-month longitudinal pilot study. **METHODS:** Each participant (n=6) will complete a total of 104, 1-hour boxing training session, over the course of 12 months. Prior to participation in the training program and at five timepoints during training (1, 2, 3, 6, and 12 months), participants will complete a self-report survey related to PA behavior (International Physical Activity Questionnaire; IPAQ). This preliminary report is a description of PA changes between baseline and 1-month of intervention. **RESULTS:** One participant had to discontinue participation in the boxing program so results are based on n=5. Vigorous intensity PA activity increased in 2 participants and decreased in 3 participants resulting in an average of -19 minutes of vigorous PA/person/week. Moderate intensity PA activity increased in 3 participants and decreased in 2 participants resulting in an average of +28 minutes of moderate intensity PA/person/week. Walking time increased in 3 participants and decreased in 2 participants resulting in +14 minutes of walking time/person/week. Sitting time increased in 2 participants and decreased in 3 participants resulting in -25 minutes of sitting time/person/week. **CONCLUSION:** While data collection for this study is preliminary, promising trends of improved PA behavior (increased PA minutes and decreased sitting minutes) are encouraging. If trends of improved PA behavior are realized over the entirety of this study (12 months), we expect to see other positive neurological outcomes that are also being analyzed in these study participants.