

## World Summit on OCCUPATIONAL HEALTH AND PUBLIC SAFETY

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**Predictors of physical activity level in Parkinson's disease individuals: A pilot study**Vitoria Leite Domingues<sup>1</sup>, Marina Portugal Makhoul<sup>1</sup>, Tatiana Beline de Freitas<sup>1</sup>, Camila Torriani-Pasin<sup>1</sup><sup>1</sup>University of Sao Paulo, Brazil

**Introduction:** Parkinson's disease (PD) individuals have a low physical activity (PA) level. It is already known that physical, psychosocial, and disease-related factors are associated with their PA levels; however the factors predicting it still need further investigation.

**Purpose:** To investigate the effectiveness of the PA measures (diary and accelerometer) and the participant's perceived of use; to investigate the association between physical and psychosocial variables with PA level.

**Method:** This pilot study included PD individuals over 60-years, with Hoehn and Yahr modified score between 1-3, without clinical condition that impacts PA. Individuals with other neurological disease or dementia were excluded. The protocol duration was 7-days. The physical and psychosocial evaluations were performed on the first day: 10-meters walk test (10-MWT), Mini Mental State Examination (MMSE), Activity-Specific Balance Confidence Scale (ABC-Scale), MDS-Unified Parkinson's Disease Rating Scale part III (MDS-UPDRS-III); Timed-Up-Go (TUG), Five times sit-to-stand (FTSTS), MiniBESTest and Functional Gait Assessment (FGA). The participants received the Dynaport Move Monitor (accelerometer attached to lower back) to evaluate their PA level and a diary to record their routine. On the 7th day, the participant returned the accelerometer with their filled diary. Pearson's correlation was performed to investigate association between all variables with PA level. Alpha 0.05.

**Results:** All 22 participants accepted well the use of the accelerometer. However, the diary notes were not perfectly filled because there was much information to register. There was complaining of discomfort caused by the use of the accelerometer in lying and sitting positions due to its location. Besides, due to technical problems with the device, 4 samples were recollected. Only correlation with 10-MWT, MMSE and ABC-Scale weren't statistically significant.

**Conclusion:** The accelerometer acceptance was good for most individuals, but its effectiveness wasn't great. To better adherence, the diary needs to be shorter. Five variables were statistically significant with PA level: MDS-UPDRS-III and TUG had low correlation, and FTSTS, MiniBESTest and FGA had moderate correlation.

**Biography**

Vitoria Domingues is a physical education professional, with an on-going Master in Science at the University of Sao Paulo, Brazil. Since her bachelor's course, she has been involved in community programs to promote physical activity in Parkinson's disease and Stroke individuals. The present manuscript is her undergraduate final project and was design to be the pilot study of her master dissertation. Also, she is conducting a systematic review in the same theme: Factor associated with physical activity level of Parkinson's disease individuals.