Feasibility study of an **intensive multi-strategy rehabilitation program** for Parkinson disease

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**BACKGROUND**

Parkinson’s disease (PD) still presents many challenges in its management for both patients and health care professionals. Increasing research suggests that intensive rehabilitation programs can provide both short and long-term benefits to individuals with PD and their caregivers. Given the variety of rehabilitation programs that exist, the true acceptability and use of these programs is still limited.

**OBJECTIVE**

To assess the feasibility of an intensive multi-strategy rehabilitation program for individuals with Parkinson disease (PD) and to evaluate the responsiveness of multiple outcome measures that could be candidates to be applied on confirmatory trials.

**METHODS**

We conducted an exploratory feasibility study in individuals diagnosed with idiopathic PD reference to the study due to balance and gait impairments. Feasibility was assessed by level of adherence to the program. Participants were recruited from a Movement Disorders Unit (CNS).

Participants were assessed with the MDS-UPDRS (part III - ON state), Pull-test, Timed-up and go (TUG) and Balance Berg scale. Our intervention consisted of at least 2 hour individual physiotherapy sessions per day, 3 times a week for at least 4 weeks.

**RESULTS**

The program consisted of practicing stepping, gait and balance multitask activities with different kinds of motor and cognitive tasks progressively introduced. Focused attention and multitasking was also explored with resistance training using pluri-sports adapted to PD, such as boxing, dancing and swimming. The duration and intensity of rehabilitation exercising was adjusted to patients’ individual cognitive and physical levels.

**CONCLUSION**

Our results suggest that this intensive rehabilitation program had a high adherence level and appears to be feasible for these individuals with moderately severe PD. Our results also suggest that the most responsive outcome measure for an intervention with these characteristics is the MDS-UPDRS (Part III – ON state).