

LOOKING FOR THE OPTIMAL DOSE AND APPROACH IN OUTPATIENT REHABILITATION DELIVERY TO PEOPLE WITH PARKINSON'S DISEASE

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Introduction. Parkinson's Disease is characterized by motor and non-motor symptoms determining complex disability. Rehabilitation care is effective at optimizing functional abilities, but the superiority of any protocol, in terms of type, setting and intensity of training, is not yet defined.

Purpose. To evaluate and compare the impact of different rehabilitation protocols on disability progression in the short and medium term in people with PD (pwPD).

Methods. The 6-month evolution of functional status was analyzed in pwPD undergoing outpatient rehabilitation at a dedicated Centre for movement disorders. To this end, patients' records were retrospectively searched across a 7-year period. Independent variables were: type of training and intensity (total training duration, in minutes). Protocols were grouped into three categories according to intensity: LOW: <600minutes; MODERATE: 700-1100minutes, HIGH: >1200minutes. Primary endpoint (disability course) was measured through the Unified-Parkinson's-Disease-Rating-Scale (UPDRS) Part II. Secondary endpoints were measured by: UPDRStot and III, Timed-Up-and-Go-Test (TUG), Six-Minute-Walking-Test (6MWT), 39-Parkinson'S-Disease-Questionnaire (PDQ-39).

Results. Out of 94 pwPD studied (42 female, age: 68.4+7.1years, disease duration: 10.9+6years), 39.4% performed LOW, 24.4% MODERATE and 36.2% HIGH intensity training. No clinical or demographic differences were found across these three groups. Treatment protocols included aerobic exercise (dance therapy or treadmill training), task-oriented approaches (balance training, over-ground gait training with cueing), balance training (Qi Gong), multidisciplinary approaches (EPDA guidelines). At treatment end, disability decreased by 16% after LOW and MODERATE intensity, and by 25% after HIGH intensity training. Gait function (TUG and 6MWT) improved in all subjects. UPDRS III improved by 14% and PDQ-39 by 15.4%, mainly after multidisciplinary treatment. At six-month follow-up, the benefit only persisted in the HIGH intensity group receiving multidisciplinary rehabilitation.

Conclusions. Rehabilitation is effective at reducing disability in pwPD, with benefits outlasting treatment end, provided that training duration exceeds 20 hours, and includes aerobic exercise combined with task-oriented practice of ADL.