

MRT-FATIGUE, PHYSICAL FITNESS AND EXERCISE AMONG PATIENTS SUFFERING FROM MULTIPLE SCLEROSIS WITH MILD NEUROLOGICAL DISABILITY: A TELEREHABILITATIVE APPROACH.

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About 2.3 million persons suffer from Multiple Sclerosis (MS) around the world. Pathological fatigue, interfering with desired activities and participation, and thus lowering quality of life, is the most prevalent symptom of the disease. Up to 90% of patients with MS will report high level of fatigue, and a majority of patients identifies it as their worst symptom. Unfortunately, its pathophysiological pathways are still poorly understood and its management remains a challenge for clinicians. This fatigue is frequently present at the beginning of the disease course. Moreover, it is well known that patients with MS have poor physical fitness, even when presenting low levels of neurological disability. We recently demonstrated that fatigue is moderately linked to physical fitness, walking capacity and general mobility among patients with MS and mild neurological disability. Furthermore, aerobic and resistance therapeutic exercises have been showed to have a positive effect on fatigue among these patients. However, due to interference with other activities, lack of support, lack of time or poor self-efficacy, these patients are often reluctant to engage in such activities. In this context, and with the fast development and broad availability of health- and exercise-related technology, a telerehabilitative strategy could improve the management of MS-related fatigue. Such an approach has been proven effective in various chronic pathologies (*e.g.*, Parkinson's disease, stroke, COPD...), reducing patient's and caregiver's burden, as well as healthcare costs and inequalities. Our aim is to develop and assess the efficacy and effectiveness of an exercise-based telerehabilitation program targeting MS-related fatigue, by the mean of an international multicentric assessor-blind RCT.