

Neurology and Therapeutics

March 27-29, 2017 Madrid, Spain

Innovation in the physiotherapy treatment of Parkinson's disease

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Parkinson is a disease characterized by four cardinal signs: Bradykinesia, rigidity, tremor and postural instability. The traditional treatment was based on gait re-education due to the slow movement pattern and short steps that increases the risk of falling and this fact leads to work the balance and compensatory strategies to prevent it. Commonly, referral to physiotherapy is done once the disease has progressed enough to lead the patient to fall. Nevertheless, innovations in physiotherapy are among others related to the new evidence-based PD warrior developed by Melissa MacConaghy for stages I/II in Parkinson's disease (PD). The core principles of this recent physiotherapy treatment define how the exercises to-do have to be tailored; thus, the main characteristics are amplitude/power, fun, specific, high effort, frequency and meaningfulness. Amplitude works as an effective element to reduce bradykinesia and also drives patients to perform activities symmetrically. Another intrinsic element of the different exercises is the required high effort throughout the session. The physiotherapist has the responsibility to encourage patients to get the maximum energy in each exercise because this fact alters cortical hyper-excitability what may help to push the disease back. The frequency of attending the sessions enhances the skill acquisition and improves the cognitive state of the patient as well as making the exercises fun, dynamic and attractive motivates the patients to perform and follow-up the treatment. Finally, meaningful activities empower the linkage of the patients to the treatment because they would see improvements in functional tasks of their daily life; thus, a relevant goal setting is crucial in the design of the session along with increasing the complexity of the tasks with the objective of driving neuroplasticity, assisting with retention, skill acquisition and other characteristics. Therefore, physiotherapy can contribute to diminish or hopefully, stop the progression of this disease by fighting against the symptoms of PD through an exercise program, education of the patients, behavior change towards the disease and peer support. Similarly, LSVT BIG and John Argue Method are recent techniques which can be taken into account because they may share common aims in PD's therapy.

Biography

Selma Pelaez has completed her Msc in Neurorehabilitation from the University of Nottingham, UK. She is working in a unit where patients are mainly affected by dementia, Alzheimer and ictus. Additionally, she is one of the members of a project called "Theraschool" in which therapy for children is performed at the school. Her main aims are to explore the areas and environments, in which a neurophysiotherapist can work, and to nourish her knowledge in different settings and to be involved in research in Neurorehabilitation.

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