

Title: Clinical Pilates as a potential rehabilitation method for improving balance in patients with Multiple Sclerosis (MS).

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Purpose: Clinical Pilates seems to have a positive effect in muscle strength, core stability, flexibility and balance in elderly people and women. However, as research in patients with neurological conditions is limited this study aimed to examine whether Clinical Pilates could improve balance, fatigue and general health of people with Multiple Sclerosis (MS).
Methods/Analysis: A convenient group of 11 ambulatory female patients (49±11 years) with MS participated in this experimental control, single-blinded design study. They were randomly allocated to the experimental (Clinical Pilates) or control group (conventional physiotherapy exercises). Both groups were undertaken 24 rehabilitation hourly-sessions (2 sessions/week for 12 weeks) and once every 8 sessions they were assessed for their balance by the Mini-Balance Evaluation Systems Test (mini-BESTest), and the Functional Reach Test (FRT), for the feeling of Fatigue by the Fatigue Severity Scale (FSS) and for their generic health by the Health Survey Questionnaire (SF-12). Mixed Measures ANOVA and Wilcoxon Signed-Rank test were used for changes in mini-BESTest, FRT, SF-12 and FSS.
Results: Following the rehabilitation program, balance was improved as it was measured with mini-BESTest ($F_{(3, 27)}$=20.82, $p<0.001$), and FRT ($F_{(3, 27)}$=6.23, $p<0.001$). However, no differences were found between control and experimental group for mini-BESTest ($F_{(3, 27)}$=2.20, $p>0.05$), or FRT ($F_{(3, 27)}$=2.38, $p>0.05$). Generic health did not change ($p<0.05$) in any group, but the feeling of fatigue showed significant reduction in both the experimental ($Z=-2.20$, $p<0.05$) and control group ($Z=-2.02$, $p<0.05$).
Discussion & Conclusions: Reactive postural control, anticipatory movements and sensory orientation were improved following the Clinical Pilates program, indicating the effectiveness of this method in improving static and dynamic balance as well as fatigue. The absence of differences between conventional physiotherapy and Clinical Pilates may have been masked by the small sample size and the participation of only ambulatory patients.

Key - words: Clinical Pilates, balance, fatigue, conventional physiotherapy

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Biography

Dr Sofia Lampropoulou is an Assistant Professor and Coordinator of Physiotherapy Programme, University of Nicosia, specialized in clinical and research Neurological Physiotherapy, taken her PhD in 2010. She is research active with continuous and systematic publications, all in scientific peer-reviewed journals. She has served as a member of the Scientific Society of Conferences, chair in conference sessions and participated as invited speaker to many of those. She is also a member of the Health Professional Council (HPC) of UK, the Physiological Society of UK, the Hellenic Scientific Society of Physiotherapy, the Panhellenic and Pancypriot Scientific Association of Physiotherapists.

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