

CAN PILATES IMPROVE SELF-EFFICACY IN PEOPLE WITH MULTIPLE SCLEROSIS?

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Background: Multiple sclerosis is a degenerative neurological disease in which people experience impaired physical function and increased fatigue. These symptoms lead to decreased participation in activities which leads to exacerbated symptoms. This vicious cycle can cause one to experience lowered self-efficacy, which is the belief in one's own ability to handle challenging situations. Self-efficacy is increased through mastery experiences and is directly related to quality of life. Pilates utilizes machines and techniques to create an environment which is optimal for motor learning and movement re-education, which support mastery experiences. The purpose of this study was to determine whether a 6-week Pilates intervention would improve self-efficacy and therefore quality of life in people with MS.

Methods: Five women participated in a 6-week Pilates intervention. At baseline and post-intervention, participants answered MS specific quality of life (MSQoL-54) and self-efficacy (MSSS) questionnaires, and performed Timed-Up-and-Go (TUG) and 30-second Sit-to-Stand tests. Paired t-tests and Pearson's correlation coefficients were used to determine the effect of Pilates on outcome variables and if relationships exist between the different measures.

Results: Modest improvements in mean scores were observed for Timed-Up-Go, 30-second Sit-to-Stand, Multiple Sclerosis Self-efficacy Scale, and physical and mental aspects of Quality of Life. Self-efficacy improved in four out of five participants. Data analysis shows correlation between changes in self-efficacy and physical and mental aspects of quality of life.

Conclusion: Although not statistically significant, our data support the hypothesis that a Pilates intervention could improve self-efficacy and therefore QoL in those with MS. A larger sample size may improve statistical significance. Physical function and QoL also appear to be related, however physical function does not appear to be related to self-efficacy. This suggests that self-efficacy could improve QoL independent of physical function. Therefore, mastery experiences via Pilates practice could improve self-efficacy and therefore QoL in people with MS. Further research on the benefits of Pilates on MS is suggested using larger samples, control groups, and participants of varying disease stages and physical function.

