

# The Effects of a Wellness Exercise Class on Perceived Walking Ability, Fatigue, Quality of Life, and Sustainability of Exercising Independently in Persons with Multiple Sclerosis (MS)



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## PURPOSE/HYPOTHESIS

In persons with MS we determined the impact of a six-week physical therapist supervised Wellness Exercise Class (WEC) on the perceived quality of life, ability to walk, overall impact of disease, and sustainability of independent exercise 4 weeks later. We expected improvements in walking, and disease-specific quality of life after intervention, and the outcomes maintained with independent exercise.

## SUBJECTS

Eight persons (Age=53.5, SD=11.8; 6 females and 2 males) with MS (EDSS 5.8, SD.594) participated in the WC led by a Senior Neurological Clinical Specialist Physical Therapist. The WEC was 1 time per week, 60 minutes/session for 6 weeks. All participants were ambulatory, recruited from an MS Comprehensive Care Center, and cleared by their doctor to participate in a supervised aerobic and resistance exercise program. All patients had recently been discharged from individualized physical therapy.

## MATERIALS/METHOD

Demographics and the Expanded Disability Status Scale (EDSS) were collected at baseline. Before and after the 6-week WEC, and at follow up 4 weeks later, participants completed disease-specific self-reported measures of physical and psychological impact of MS, including the Multiple Sclerosis Impact Scale 29 (MSIS-29), the 12 item Multiple Sclerosis Walking Scale (MSWS-12) and the Multiple Sclerosis Quality of Life-54 (MSQOL-54). None of the participants were exercising independently prior to beginning this wellness series.

## RESULTS

A pretest posttest design was used. A Wilcoxon Signed Ranks Test was used to determine the magnitude of the differences between the 2 conditions. MSIS-29 scores improved significantly from 69.5 to 52.9,  $p=.018$ ; MSWS-12 scores improved from 71.2 to 50.4,  $p=.01$ ; and MSQOL-54 scores improved from scores improved from 52.4 to 68.8,  $p=.036$ . After four weeks, 7 of the participants reported being active in an independent gym program outside of rehabilitation therapies.

## CONCLUSIONS

After discharge from outpatient physical therapy, wellness classes focused on progressive resistance and aerobic exercises had a positive impact on the perceived quality of life and ability to navigate the community in persons with MS. After the supervised group exercise classes, nearly all participants continued independent exercise in the community.

## FIGURE

Outcome measure:	Pre 6-week wellness program (baseline)	Post 6-week wellness program	P-value	Adherence with exercise at 4-week follow up
MSIS-29	69.5	52.9	.018	N/A
MSWS-12	71.2	50.4	.01	N/A
MSQOL-54	52.4	68.8	.035	N/A
Independent exercise Post wellness class	0/8	7/8	N/A	7/8

## CLINICAL RELEVANCE

Leading a healthy lifestyle for those with MS is important. Exercise can help to manage symptoms and prevent further disability. Continued individualized therapy is not always feasible for many reasons, and wellness classes that focus on exercise and overall well-being may increase confidence, enhance quality of life, and lessen the perceived impact of disease for those with MS. Providers should work with physical therapy professionals to assure that after rehabilitation, affordable opportunities such as group exercise classes exist to help those with MS have the tools and confidence necessary to independently engage in exercise and derive the benefits. Wellness classes may also offer a great alternative to maintenance care.

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