Modifying Diet and Exercise in Multiple Sclerosis (MoDEMS): A Randomized Controlled Trial for Behavioral Weight Loss in Adults with Multiple Sclerosis and Obesity

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Introduction:
Obesity is a risk factor for developing MS (multiple sclerosis) and MS-related disability. The efficacy of behavioral weight loss interventions among people with MS (pwMS) remains largely unknown.

Objectives/Aims:
Examine whether a group-based telehealth weight loss intervention produces clinically significant weight loss in pwMS and obesity.

Methods:
Seventy-one pwMS were randomized to the weight loss intervention or treatment-as-usual (TAU). The 6-month program promoted established guidelines for calorie reduction and increased physical activity. Anthropometric measurements, mobility tasks, self-report questionnaires, and accelerometry were used to assess changes at follow up.

Results:
Mean percent weight loss in the treatment group was 8.6% compared to 0.7% in the TAU group (p < .001). Sixty-five percent of participants in the intervention achieved clinically meaningful weight loss (>5%). Participants in the treatment group engaged in 46.2 minutes/week more moderate-to-vigorous physical activity than TAU participants (p = .017) and showed improvements in quality of life (p = .012). Weight loss was associated with improved mobility (p = .003).

Conclusion:
Findings demonstrate the efficacy of a behavioral telehealth intervention for people with MS and obesity, with clinically significant weight loss for two-thirds of participants in the treatment condition. Weight loss may also lead to improved mobility and quality of life.

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