(W22) DIFFERENCES IN SELF-REPORTED AND OBJECTIVELY MEASURED PHYSICAL ACTIVITY IN PEOPLE WITH MULTIPLE SCLEROSIS VERSUS HEALTHY CONTROLS

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Background: There is consistent evidence that participation in physical activity is greatly reduced in people with multiple sclerosis (MS) compared with healthy controls. The majority of the studies, however, have relied on measures of physical activity that do not have evidence supporting the validity of the scores and have not accounted for differences in mobility status. This undermines the veracity of the conclusion that individuals with MS are physically inactive and sedentary. Objectives: This study included validated, self-report, and objective measures of physical activity and compared the levels of physical activity between adults with MS and controls without MS controlling for ambulatory status. Methods: The sample included 12 individuals with a definite diagnosis of MS and 7 controls who were similar in age, sex, height, weight, and mobility. Participants walked on a GAITRite mat for measuring ambulatory status and received instructions for wearing two accelerometers (Actigraph 7164 [uniaxial] and GT3X [triaxial] models) for the subsequent 6-day period. On the seventh day, all participants returned the accelerometers and completed the Godin Leisure-Time Exercise Questionnaire (GLTEQ), International Physical Activity Questionnaire (IPAQ), and a 7-Day Physical Activity Recall (7dPAR). Data were analyzed using SPSS, version 17.0. Results: Independent-samples t tests indicated that those with MS were substantially less physically active than controls based on total activity counts from the uniaxial (P = .019, d = 1.13) and triaxial (P = .015, d = 1.08) accelerometers, scores from the GLTEQ (P = .0015, d = 1.61), and IPAQ (P = .004, d = 1.38), and energy expenditure from the 7dPAR (P = .05, d = 0.83). Those differences were unchanged when controlling for mobility status measured by the GAITRite mat in subsequent analysis of covariance. Conclusions: This study further confirms that individuals with MS are substantially less physically active than healthy controls when using validated measures and controlling for mobility status. Such results further support the importance of a targeted intervention for increasing physical activity in those with MS.

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