(S97) FATIGUE AND DEPRESSION ARE INDEPENDENT PREDICTORS OF NATURALLY OCCURRING CHANGES IN PHYSICAL ACTIVITY IN RELAPSING-REMITTING MULTIPLE SCLEROSIS

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Background: There is consistent and strong evidence for a high prevalence of physical inactivity among people with multiple sclerosis (MS). We have identified fatigue and depression as cross-sectional, inverse correlates of physical activity in people with relapsing-remitting MS (RRMS). Objectives: This study examined those two symptoms as correlates of naturally occurring changes in physical activity across time in people with RRMS. We expected that worsening of both fatigue and depression would predict reductions in physical activity across a 6-month period of time. Methods: The sample included 272 individuals with a definite diagnosis of RRMS. The participants completed the Fatigue Severity Scale (FSS), Hospital Anxiety and Depression Scale (HADS), Godin Leisure-Time Exercise Questionnaire (GLTEQ), and International Physical Activity Questionnaire (IPAQ) on two occasions separated by 6 months. The data were analyzed using a panel model in Mplus. Results: The panel model included change in fatigue and depression as predictors of change in physical activity behavior across the 6-month period. The panel model provided an excellent fit for the data ($\chi^2 = 24.00$, df = 15, $P = .07$, comparative fit index [CFI] = .98, standardized root-mean-square residual [SRMR] = .04), and there were direct paths between changes in fatigue (path coefficient, $-0.09$) and depression (path coefficient, $-0.12$) with change in physical activity. The path coefficients indicated that 1-SD increases in fatigue and depression were associated with 0.09- and 0.12-SD reductions in physical activity, respectively. Conclusions: Such findings provide support for fatigue and depression as independent predictors of naturally occurring changes in physical activity among people with RRMS. Researchers might consider targeting those variables as part of an intervention for reducing the high rate of physical inactivity in this population.

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