Factors Predicting Fatigue Impact in Persons with Longstanding Multiple Sclerosis

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Background:
Chronic debilitating fatigue is a complex, multidimensional phenomenon experienced by most persons with multiple sclerosis (MS). Fatigue negatively influences quality of life, interferes with activities of daily living, and impairs the ability to maintain gainful employment in this population. Understanding factors that are predictive of MS-related fatigue is vital to promoting optimal health and well-being.

Objectives:
Little is known about factors that predict fatigue impact in persons with longstanding MS (defined as being diagnosed with MS for more than 17 years). The purpose of this study was to examine the relationships among fatigue impact, demographic characteristics (i.e., age and duration of MS), functional limitations, depressive symptoms, barriers to health promoting activities, personal resources, and health promoting behaviors in persons with longstanding MS.

Methods:
A sample of 330 persons with MS (86% female, mean age 62.9 ± 9.3; mean length of diagnosis 26.5 ± 6.5 years) in an ongoing longitudinal study of health promotion and quality of life completed the Modified Fatigue Impact Scale (MFIS), MS Incapacity Status Scale, CES-D (depressive symptoms), Barriers to Health Promoting Activities for Disabled Persons Scale (barriers), Personal Resource Questionnaire, and the Health Promoting Lifestyle Profile II. The MFIS assesses how fatigue symptoms affect the lives of persons with MS over the previous four weeks in terms of physical, cognitive, and psychosocial functioning. Descriptive statistics, Pearson correlations, and hierarchical linear regression were used to analyze the data.

Results:
Significant ($p < .01$) positive relationships were found among fatigue impact and MS functional incapacity, depressive symptoms and barriers. Significant ($p < .01$) negative relationships were found among fatigue impact and personal resources and health promoting behaviors. The model containing functional incapacity, depressive symptoms, and barriers to health promoting activities contributed significantly ($p < .001$) to the overall
variance accounted for in total (54.2%), physical (51.2%), cognitive (40.9%), and psychosocial (50.9%) fatigue impact. MS functional limitation was found to be the strongest predictor of physical and psychosocial fatigue impact while depressive symptoms was the strongest predictor of total and cognitive fatigue impact. Personal resources and health promoting behaviors were not significant predictors of variation for any of the fatigue impact outcomes.

Conclusions:

Additional research is needed to explore if interventions designed to promote functional capacity, decrease depressive symptoms, and reduce barriers to health promoting activities may have beneficial influences on fatigue impact in persons with longstanding MS.

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