The effects of family function and disability on perceived self-efficacy in multiple sclerosis: Self-efficacy function and self-efficacy control

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Abstract

***Background*:** Self-efficacy has been shown to be a strong predictor of both psychological and general well-being. Multiple sclerosis (MS) and its accompanying disability can strongly affect a patient's feelings of self-efficacy. The construct of self-efficacy is a composite of a number of beliefs and emotions relating to self-perception and there are a number of ways in which an illness such as MS can affect self-perception. One distinction is that of *self – efficacy function* the belief in one's ability to take care of daily needs and *self – efficacy control* the extent to which a patient feels in control of his or her life. It appears that MS differentially effects se-function more than se-control but the mechanisms for this differential effect are unknown.

***Objectives*:** Compare the scores of MS patients on items of se-function and se- control and examine whether the factors of disability and family function may differentially affect the two scales.

***Methods*:** 79 patients with confirmed MS were given measures of disease severity and self-esteem (the *Multiple Sclerosis Self-Efficacy Scale [MSSE])*[1] as well as a measure of MS disability. Both patients and their family members completed the *McMaster Family Assessment Device (FAD)*[2] a measure of perceived family function. The MMSE offers measurements on the two subscales of se-function and se-control. Pearson r correlations were run to determine the relationship of disability and family function to general self efficacy as well as to the subscales of se-control and se-function.

***Results*:** Self-efficacy function was more elevated (i.e. worse) than se-control in a manner consistent with other research in MS (se-function- Mean=658.1, SD=232.6; se-control- Mean=500.7, SD=182.4). Disability (r=-.724, p<.001), and family function (r=.354, p=.002) were both significantly correlated with overall MS self-efficacy. Disability was similarly correlated to both se-function (r= -.642, p<.001) and se-control (r= -.634, p<.001). Family function was also correlated with both se-function (r= -.324, p=.004) and se-control (r= -.313, p=.006).

***Conclusions*:** MS has a deleterious effect on patient self-efficacy both in patient perception of functional ability (se-function) as well as in patient perception of personal locus of control (se-control). While both disability and family functioning are significantly related to self-efficacy neither would suggest an explanation for the difference between se-function and se -control in MS.

Background

Self-efficacy as developed by Bandura [3] and others, is defined as an individual's belief in his/her own ability to manage personal responsibilities. Self-efficacy has been shown to be a strong predictor of both psychological and general well-being.[4] The importance of self-efficacy as a construct in the perception of illness and disease burden is similarly confirmed by research.[5] As part of a larger study conducted to evaluate the role of family in the experience and perception of MS, we considered the relationship of components of self-efficacy as to each other, to disease severity and to family function.

Methods

Sample: Data was collected via mailed questionnaires and over the phone from 79 individuals between ages 20-65 who had confirmed diagnoses of MS, lived with at least one person aged 12 and up and who did not have significant cognitive impairments.

Materials: Symptom Inventory-Short Form[3] *is a 29-item Likert scale self-report questionnaire, designed to measure impairment and disability in MS over the past month. Multiple Sclerosis Self-Efficacy Scale (MSSE)* is an 18-item self-report measure, designed specifically for the assessment of self-efficacy in patients with MS. *McMaster Family Assessment Device (FAD)* is a 60-item self-report questionnaire designed to measure overall family functioning.

Statistics: The primary analysis for this study are Pearson r correlations to determine the relationship of disability and family function to general self-efficacy as well as to the subscales of se-control and se-function.

Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
MMSE Norms[1]					
Se- Function	- -	*90.00*	*900.00*	*679.12*	*181.4*
Se- Control	- -	*90.00*	*900.00*	*583.10*	*168.4*
Study Sample					
Se – function	79	90.00	900.00	658.10	232.58
Se - Control	78	150.00	890.00	500.76	182.39

Correlations (Pearson r)

	MSSE total	MSSE - Function	MSSE – Control
Disability	-.724**	-.642**	-.634**
	.000	.000	.000
Family Function	-.354**	-.324**	-.313**
	.002	.004	.006

**. Correlation is significant at the 0.01 level (2-tailed).

Conclusions

- Study results confirm the differential effect of MS on patient perception of se-function and se-control.
- Both disability status and family function are significantly related to self-efficacy. There is little difference in the relationship between se-function and se-control
- Results emphasize the importance of monitoring patient comfort with medical routine and MS care protocol, even when it appears that needs are being met.

References

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