Family Adaptation Model for Spousal Caregivers of People with Multiple Sclerosis : *Testing the Stress-Processing Theory*

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Introduction

Multiple sclerosis is a chronic neurological disease that affects women at least two to three times as frequently as men, and is diagnosed mostly between the ages of 20 to 50 (National Multiple Sclerosis Society). Multiple sclerosis is not a terminal disease; therefore, a caregiver can be providing assistance for his or her family member with MS for an indefinite amount of time. Among persons with MS, caregivers are typically family members (Minden et al., 2006). The burden of those caring for loved ones with MS is related to the unpredictable course of the disease, the absence of a cure, and its episodic nature and potentially disabling symptoms (Aronson, 1997; Khan, Pallant, & Brand, 2007).

The purpose of this study was to develop and evaluate a family adaptation model for spousal caregivers of people with MS by using Lazarus and Folkman's (1984) stress process theory as a theoretical framework. Caregiving research suggests that caregivers who appraise the caregiving situation as stressful have more psychosocial problems and poorer quality of life within the context of caring for an individual with a disability (e.g., Casey, Brown, & Bakeman, 2000; McLean, Harvey, Pallant, Bartlett, & Mutimer, 2004; Pakenham, 2001). The transactional life stress model proposed by Lazarus and Folkman (1984) is useful for understanding differences in the way people respond psychologically to chronic illness and disability.

Participants

Sample included 90 caregivers for their spouse with MS.

• Gender: 44 females/ 46 males
• Age: 49 years (Age range: 23-73)

Forty-six percent of the participants indicated that their spouse had Relapsing-Remitting MS, while about 19% indicated that their spouse had Secondary-Progressive MS and about 14% indicated that their spouse was diagnosed with Primary-Progressive MS. Only about 8% of caregivers indicated that their spouse had Progressive-Relapsing MS.

Path Analysis

The path model approach was used in this study. The path model approach has two advantages relative to correlational analyses: (a) the ability to assess several relationships simultaneously, and (b) the ability to specify directionality in relationships between variables (Renshaw, Chambless, & Steketee, 2003).

Two levels of analysis are involved: (1) the significance of each specified path between variables, and (2) The overall fit of the model to the data. The X^2 statistic is often used to analyze goodness of fit in a path model. When using the X^2 statistic, the specified model is the null model being tested; hence, a nonsignificant result (i.e., p >.05; failure to reject the null) indicates a good fit. Other indexes are also used to assess goodness of fit: (a) the Comparative Fit Index (CFI; with a value ≥.90 conventionally used to signify adequate fit); and (b) the Root Mean Squared Error of Approximation (RMSEA; with a value ≤ .05 conventionally used to signify adequate fit).

Measures

Demographics. Participants were asked for demographic information (e.g., age, gender) and MS-related demographic variables (e.g., their spouse's diagnosis, MS severity).

Caregiver Strain Index (CSI). The CSI (Robinson, 1983) is a 13-item, self-report inventory to measures strain in relation to caregiving. The CSI has five domains: Employment, Financial, Physical, Social, and Time. In this study, the internal consistency of the CSI was .84.

Coping with MS Caregiving Inventory (CMSCI). The CMSCI is a self-report inventory to measure caregivers' appraisals and coping strategies (Pakenham, 2002). Caregivers were asked how often they have tried each of the 34 coping strategies in order to deal with their main caregiving problem in the past month. For the analysis, positive and negative coping scales scores were used.

Perceived Control of Internal States Scale (PCOISS). The PCOISS is used to assess their perceptions of their ability to control their internal states and to moderate the impact of aversive events on their emotions, thoughts and physical wellbeing (Pallant, 2000). Each of the 18 items is rated on a 5-point Likert scale that ranges from 1 "Strongly agree" to 5 "Strongly disagree". For this study, the internal consistency for the PCOISS was reflected by a Cronbach's alpha of .92.

Social Support Questionnaire (SSQ). The SSQ is a short self-report measure used to assess the individual's satisfaction with their perceived social support (Sarason, Sarason, Shearin, & Pierce, 1987). The participant's satisfaction with their perceived social support is assessed on a 6-point Likert-type scale for each item, ranging from 1 "Very dissatisfied" to 6 "Very satisfied". Internal consistency for the SSQS scores was reflected by a Cronbach's alpha of .93.

Family Adaptability, Partnership, Growth, Affection, and Resolve (APGAR). The Family APGAR (Smilstein, 1978) is a five item self-report measure to assess a family member's perception of family functioning. Each item is based on a 3-point Likert scale, ranging from 0 "Hardly ever" to 2 "Almost always." Internal consistency for this study was reflected by Cronbach's alphas that ranged from .80 to .85.

Results

Table 1. Means, Standard Deviations, & Correlations

	M	SD	1	2	3	4	5	6	7	8
Gender	48.5	12.5	---							
Health Problems	.41	.49	.14	---						
Caregiving Strain	7,47	3.65	0.407**	0.334**	---					
Positive Coping	43.18	11.45	.254	.174	.275**	---				
Negative Coping	26.13	7.72	.145	.087	.567**	.158	---			
Locus of control	62.07	9.92	-.269**	-.123	-.28**	.311**	-.331**	---		
Social Support	30.52	7.63	-.065	-.165	-.088	.017	-.241*	.363**	---	
Family Adaptation	6,36	3.35	-.179	-.302**	-.419**	.136	-.254*	.517**	.348**	---

Results
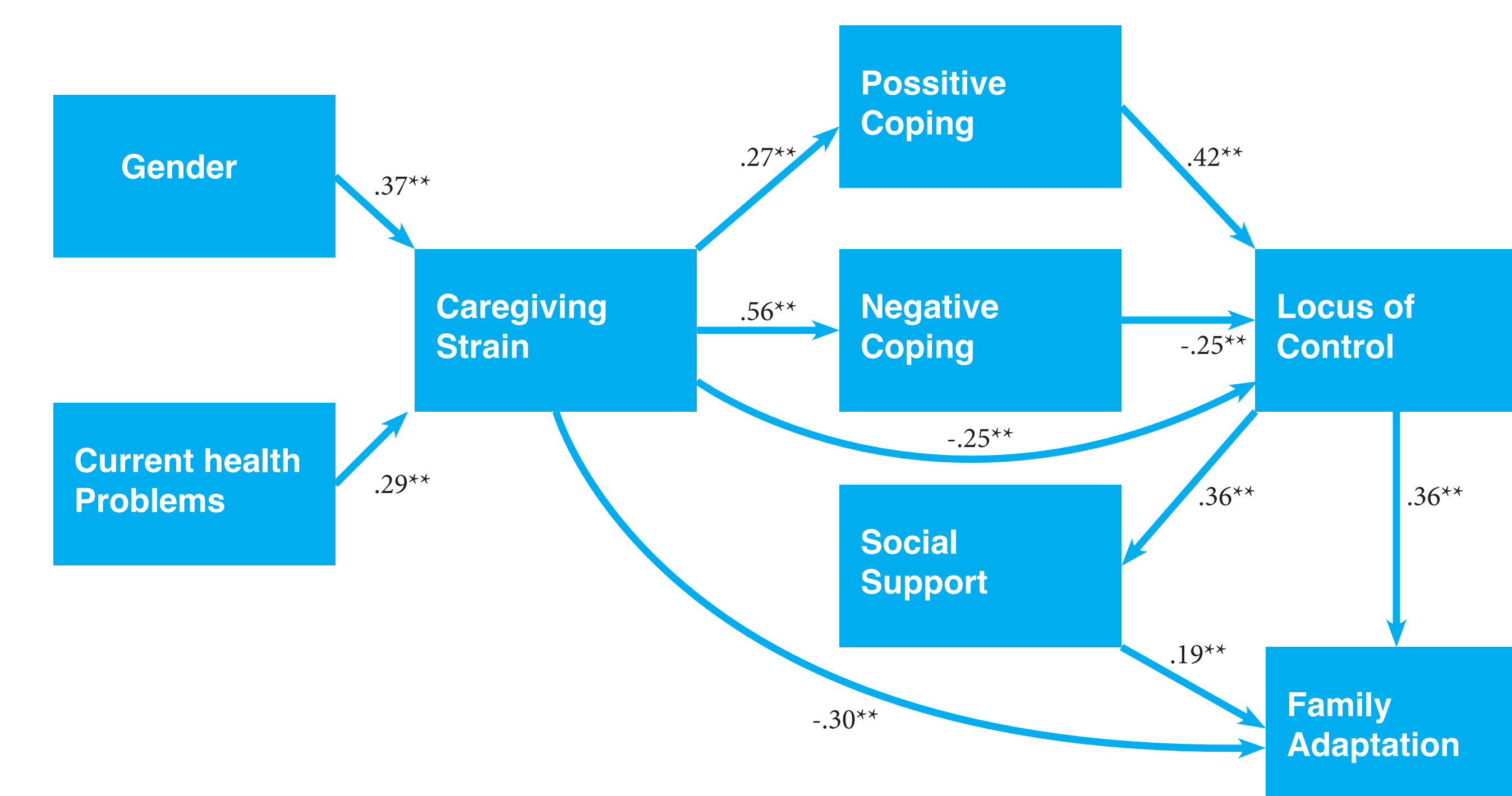
The hypothesized model was tested with AMOS 5.0. The test of this model showed fit indices that indicated an excellent fit for the model (X^2 =18.373, p = .366; NFI = .892; CFI = .99; RMSEA = .03). Wald statistics showed that all path coefficients among variables were statistically significant (all ps < .05). The results indicated that caregiver's health problems and gender, perceived strain, ways of coping, social support, and control of internal states accounted for 37.8% of variance in family adaptation.

Conclusion

Results from this study provide evidence to support the importance of such appraisal variables in affecting caregivers' adaptation.

The finding shows that positive coping strategies enhanced caregiver's locus of control and subsequently led caregivers to seek social support and in turn, caregivers perceived family function positively. Locus of control, positive coping strategies, and social support buffered the negative effect from caregiver's stressors on family adjustment.

The results provide further detailed understanding of how coping styles affect family adaptation among caregivers of individuals with MS by affecting their control of internal states and social support.

Implications

The gender difference, which has previously been reported, should alert clinicians not to generalize and assume that female and male spousal caregivers will have the same experiences with and responses to caregiving, similar coping responses, or perceived level of social support.

It is important to help caregivers have a positive coping style, have positive perceptions about one's abilities, and connected to resources in the family, the community, and personal/professional network.

Further evaluation of the stress processing theory may be needed to understand and promote the adaptation of caregivers.