The mediating role of resilience in the relationship between stress and couple burnout in people with multiple sclerosis

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ABSTRACT

Objective. This study was aimed at determining the mediating role of resilience in the relationship between stress and couple burnout in people with multiple sclerosis (MS).

Materials and Methods. In this cross-sectional analytical study, 200 people with MS from Guilan province participated, chosen by convenience sampling method and using the Connor-Davidson Resilience Scale (CD-RISC), Perceived Stress Scale (PSS), and Couple Burnout Measure (CBM). Data analysis was performed in SPSS-24 and Amos-24 software using structural equation model method.

Results. According to the results, the proposed model has a good fit ($\chi^2 = 18.36$, df=13, p=.145, $\chi^2$/df=1.41, CFI=.99, GFI=.97, TLI=.99, RMSEA=.04). Moreover, according to the path analysis results, stress directly effects couple burnout ($\beta=-.631$, p=.001) with the mediating role of resilience ($\beta=.418$, p=.001).

Conclusion. In general, it can be claimed that in people with MS, stress is a factor affecting couple burnout; besides, this relationship is mediated by resilience. Accordingly, the implementation of psychological interventions based on stress management and resilience promotion is recommended.

Keywords: resilience, stress, couple burnout, multiple sclerosis

INTRODUCTION

Multiple sclerosis (MS) refers to a chronic, progressive, and often debilitating autoimmune disease identified by inflammation, demyelination, and central nervous system neurodegeneration [1]. MS is on the rise all over the world. According to the studies, in Iran, the combined prevalence of MS is 100 people per 100,000 people [2]. This disease threatens individual independence and the ability to effectively participate in family and society and may threaten people's mental health [3]. Furthermore, MS has a key impact on couple's relationships and it can be a threat to marital relationship and provide the bed for couple burnout [4].

Couple burnout refers to a painful state of physical, emotional, and mental burnout that may threat the durability of couple's relationship [5]. Couple burnout reduces the love, affection, and intimacy of couples in a period, resulting in psychological problems, emotional divorce, and finally legal divorce [6]. In fact, intimacy and love gradually fades and a sense of general fatigue emerges [7].

On the other hand, increased stress is a very prevalent symptom among people with MS [8]. The link between stress and MS is supported by epidemiological, clinical, and neuroscience studies [9]. MS and the stress associated with it may significantly affect a person's emotions [10]. MS affects the relationships of the affected couples, whereby disease-related stress may lead to the deterioration of marital relationships [11]. The couple's harmony can be affected by any type of stressful situation in the family system.
and they may be a determining factor in couple burnout [12].

The findings suggest that resilience plays a significant role in marital satisfaction and couples’ relationships [13]. According to Walsh (1996), resilience helps families cope with ongoing stressful events or crises more effectively [14]. Based on the previous researches, resilience variable has positively affected the relationship between mental health and couple burnout [15]. An important point is that resilience directly affects marital satisfaction [16] and it can reduce couple burnout [17]. Resilience stands for positive adaptation or the ability to maintain or restore mental health, despite experiencing adversity [18]. Walsh (2006) expresses that resilient families strengthen their relationships and emotional bonds with each other [19].

Resilience is related to stressful life events, since when more stressful events affect individuals, they perceive themselves less resilient. Moreover, low-resilience individuals exhibit higher levels of psychopathology symptoms. Hence, resilience seems to have a buffering effect on perceived stress, with the ability to moderate the effect of stress on mental health [20]. Given the dangers caused by the spread of MS disease [2] and its effects on the couple relationship, as well as the lack of studies on couple burnout in these patients, the present study tries not only to discover the relationship between couple burnout and MS disease, but also to find the couple burnout’s underlying mechanisms so as to provide proper educational and therapeutic interventions to empower couples. Accordingly, this study is aimed at investigating the mediating effect of resilience in the relationship between stress and couple burnout in people with MS.

MATERIALS AND METHODS

This was a descriptive research of the correlation type. Its statistical population included married MS patients in Guilan province in 2023, 200 of whom participated in an online survey using the convenience method in order to conduct the study. The sample size in this study was based on Tabachnick and Fidell (2007) formula [21].

TOOLS

Conner-Davidson Resilience Scale (CD-RISC)

This scale was first designed and validated by Conner and Davidson [22]. The CD-RISC has 25 items and 5 subscales answered based on a 5-point Likert scale (strongly false = 0 to strongly true = 4). The range of scores in this scale is 0-100, with a high score indicating greater flexibility [22]. The CD-RISC validation results in Iran indicated the good construct validity for this scale with five factors. Its reliability was calculated by means of the internal consistency method and calculation of the optimal Cronbach’s alpha coefficient [23]. Besides, another study obtained the Cronbach’s alpha coefficient of 0.89, showing the optimal reliability coefficient of the scale [24].

Perceived Stress Scale (PSS)

This scale was designed by Cohen et al. in 1983 [25], including 14 questions on a 5-point Likert scale, ranging from “never=0” to “very often=4”, with the lowest score of zero and the highest score of 56. A higher score indicates greater perceived stress [26]. In Iran, validating PSS Cronbach’s alpha coefficient showed the value of 0.90 [27].

Couple Burnout Measure (CBM)

Evaluating the level of burnout of individuals in a husband and wife relationship, this tool was created by Pines [6]. This questionnaire contains 21 items measuring the frequency of experiencing symptoms of burnout in marriage/intimate relationship. This questionnaire has three subscales of physical exhaustion (feeling tired, fatigued, & having sleep disorders), emotional exhaustion (feeling depressed, hopelessness, trapped), and mental exhaustion (feeling worthless, frustrated, and angry with the spouse). Scoring is based on a 7-point Likert scale (from 1 = never to 7 = always) [6]. The highest score in this scale is 147 and its lowest score is 21, with higher scores indicating greater burnout [6]. The reliability of this questionnaire was calculated 0.86 by Cronbach’s alpha method [28].

RESULTS

In this study, 200 people with MS (152 women) with a mean age and standard deviation of 35.74 ± 7.12 years participated. Table 1 shows the descriptive findings and Pearson correlation coefficients between the main variables.

Since the values of the skewness and kurtosis indices are in the range of ±2, the data distribution is normal. In addition, the results of the Pearson correlation coefficient test revealed a positive and significant correlation between couple burnout and stress (r=.600, p=.001), but a negative and significant correlation between couple burnout and resilience (r=-.752, p=.001) and between stress and resilience (r=-.646, p=.001). Structural equation modeling and bootstrap test were employed in order to examine the mediating role of resilience in the relationship between stress and couple burnout. Before implementing them, a good amount of autocorrelation in the residuals was reported by Durbin Watson test (1.95). Moreover, there was no multicolinearity (collinearity) between predictor variables. Fit indices
TABLE 1. Descriptive findings and Pearson correlation coefficients (n=200)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- CBM</td>
<td>58.45</td>
<td>14.70</td>
<td>.246</td>
<td>.020</td>
<td>1</td>
<td>.600**</td>
</tr>
<tr>
<td>2- PSS</td>
<td>27.97</td>
<td>9.87</td>
<td>-.086</td>
<td>-.543</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3- CD-RISC</td>
<td>56.40</td>
<td>18.15</td>
<td>-.271</td>
<td>-.154</td>
<td>-.725**</td>
<td>-.646**</td>
</tr>
</tbody>
</table>

Note: CBM= Couple Burnout Measure; PSS= Perceived Stress Scale; CD-RISC= Connor-Davidson Resilience Scale; SD= Std. Deviation; **. Correlation is significant at the 0.01 level (2-tailed).

Table analysis results revealed the direct effect of stress on resilience (β=-.662, p=.001) and couple burnout (β=.182, p=.001). The direct effect of resilience on couple burnout (β=-.631, p=.001) was significant. Besides, according to the results, stress indirectly affects couple burnout with resilience mediation (β=.418, p=.001); indeed, resilience plays a partial mediating role between stress and couple burnout.

DISCUSSION

The present study was performed with the aim of determining the mediating role of resilience in the relationship between stress and couple burnout in people with MS. Based on the results, stress has a positive effect on couple burnout. This result is in line with the studies of Gholamrezayi [29] and Aydogan & Kizildag [12]. According to Rabiee's study, stress reduction training is an effective intervention to decrease couple burnout [30]. In explanation, it

FIGURE 1. Stress-based couple burnout model with resilience mediation
may be stated that burnout is a long-term response to stress [31], which can have an effective role on the quality of marital relationships in the long term [32]; particularly in situations where someone suffers from a chronic disease, it may lead to more damage [33].

Other results revealed the negative effect of resilience on couple burnout. The current result is consistent with the previous studies [12,34-36]. Based on the previous findings, resilience is a protective factor against pressures and tensions [37]. In explanation, it can be stated that since resilience helps an individual take care of himself/herself against tensions and it can consequently help improve individual and couple performance, which can in turn help improve marital satisfaction [16], improving marital satisfaction may prevent couple burnout [38]. Hence, growing abilities like resilience may play a significant role in reducing marital relationship damage [39] and resilient people can endure marital obstacles and problems more and will not simply experience couple burnout. Another result revealed the mediating role of resilience between stress and couple burnout; i.e., low resilience can be a mediator between stress and couple burnout. In explanation, it may be stated that chronic conditions caused by disease as well as environmental factors always lead to stress, which can threaten the patients’ mental health [12], and consequently, it will have an adverse effect on the quality of their marital relationship [40]. On the other hand, resilience may act as a defensive shield [41], helping a person quickly adapt to stress [42]. Accordingly, resilience is referred to as a protective shield [43]. Hence, resilience allows protective mechanisms to act through reducing risk factors in people and/or their environment [44]. In the present study, resilience has a buffering effect on stress [20] as one of the main reasons for couple burnout. Therefore, if a person has more resilience, the effect of stress will be reduced and the possibility of his/her experience of burnout will be reduced [45-46].

CONCLUSION

The current study emphasizes the mediating role of resilience as a key mechanism in the relationship between stress and couple burnout in people with MS. Thus, growing and developing resilience in these patients may be a good way to support them in facing the tensions of married life. The present research has restrictions limiting the generalizability of the results. Correlation research design and convenience sampling are the key limitations. Accordingly, longitudinal researches are suggested to achieve causality, and random sampling should be used in future studies. In the practical field, it is recommended to implement educational programs aiming at managing stress and improving resilience for MS patients.

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REFERENCES


