



Full Length Research Paper

Resiliency of patients with Multiple Sclerosis on the basis of Social Support and Welfare

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Multiple Sclerosis (MS) is a chronic inflammatory disease that occurs predominantly in women 20 to 40 years old. People with MS reported the social stigma attached to suffering from the disease. Many of the caregivers thought that patients with MS did not accept the disease and felt that over-protection was of little help in coming to terms with the disease and should therefore be avoided. Several factors such as geographical, familial, genetic, and environmental factors also engaging elements of the immune system and childhood infections are involved in this disease. There is a disturbance in the sensory and motor, balance, vision, and sphincter systems in the patients, thus has a negative and devastating impact on health and social life. Several factors contribute to the resiliency of the patients that social support is one of them. The purpose of this study was to predict the resiliency of patients with multiple Sclerosis on the basis of social support. In this descriptive study, 108 patients with multiple sclerosis were selected from Hamadan Farshchian hospital. Data were collected through CD-RISC Resiliency questionnaire and wax Philips social support questionnaire. Data were analyzed using the SPSS version 16 software in two levels, descriptive statistics and regression. We found a significant and positive relationship between social support and resiliency ($p < 0.01$, $r = 0.449$). 19% of Resiliency variance of the patients was due to social support But others components (family, friends and others support) either alone predicts a smaller share of the resiliency. MS influences QoL (quality of life) but to a greater extent in the physical than the psychological domain. The role of social support in QoL is generally positive but its protective function may be weakened when interacting with other factors. Social support of the patients seems necessary to increase patient resiliency.

Keywords: Resiliency, Social Support, Multiple Sclerosis.

INTRODUCTION

Multiple sclerosis is a chronic, often progressive inflammatory disease of the central nervous system

characterized by the loss of myelin sheaths in brain areas as determined by plaque which impairs the transmission of nerve impulses. Myelin sheath covers nerve fibers and protects them against the disease (Compston and Coles, 2002). The disease is more common in women than men; this may be related to sex hormones, especially because

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the disease is more common in women who are between the ages of maximum hormones activity (Milo and Kahana, 2010). Four disease courses have been identified in multiple sclerosis: relapsing-remitting MS (RRMS), primary-progressive MS (PPMS), secondary-progressive MS (SPMS), and progressive-relapsing MS. Each of these disease courses might be mild, moderate or severe (Compston and Coles, 2008).

MS is the most common neurological disorder in young adults; the prevalence of the disease is between 3.5 to 47% depending on geographical region. White matter of the brain is the most extensive area that is damaged in MS patients. Since many different control centers of the body function are in the brain's white matter, symptoms vary widely. For example, if the destruction of the myelin sheath occurs in a part of the brain, memory, thinking and feeling may be in trouble. If the plaques develop in the cerebellum, the balance is disrupted and mobility will be difficult. If the myelin membrane wiped out in different parts of the spinal cord may lead to preventing the passage of messages from the brain to the lower body and the patient can have control on hand or a foot. Life expectancy in MS is approximately 5 to 10 years less than other people (Rezaei et al., 2009). Since there is no known cure for MS it is necessary that patients be widely adopted with their chronic disease to be able to practice their responsibilities (Koopman and Schweitzer, 1999). Resiliency is one of the variables that affect the adaptation which has attracted the attention of a prospective study of positive psychology in recent years and refers to the dynamic process of positive adaptation, considering the grim experiences (Luthar and Cichiti, 2000). Resiliency also is known as a successful process of confronting with challenging and life-threatening condition or a self-healing with positive consequences of emotional, affective and cognitive (Masten, 2001). Of course resiliency is only not the stability against damage or threatening conditions and this is not passive in the face of dangerous conditions, but it's active and constructive participation of the patients in their environment and includes the ability to establish a biological and psychological balance when faced with a dangerous situation (Connor and Davidson, 2003). Research suggests that high levels of resiliency helps people to make use of positive emotions and excitement for leaving behind the unpleasant experience and return to the desirability. As if the person tied around problems elastic cord and helps go back them when the situation was bad (Masten and Powell, 2003).

Social support is one of the psychological concepts that have been raised recently by scientists of Education. Research has shown that social support can prevent the occurrence of undesirable physiological effects and increase the level of self-care and self-confidence in patients and has a positive impact on the physical, psychological and social status and thus significantly enhances the performance of the patients (Chan et al.,

2004). Several studies have emphasized the moderating role of social support on stress, and it has been shown that patients with high social support and less interpersonal conflict, have more resistance in the face of stressful life events, and, therefore, have fewer diagnoses of depression or mental confusion (Moradi et al., 2011). Due to the lack of definitive treatment and the need for adaptation and coordination of patients with the disease, we decided to measure the effects of social support on resiliency in patients with multiple sclerosis.

METHODS

This is a practical study. The research method is quantitative in nature and also is descriptive in terms of data collection for the study. The study population included 1136 patients with multiple sclerosis in Hamedan. Of these, 108 patients were selected who were more readily available. Questionnaires were run individually. Questions were explained to illiterate people or those with low education. Data were collected using a questionnaire of social support (SS-A) and Resiliency Scale (CD_RISC). SS-A was prepared in 1986 and its theoretical structure is based on the definition of battering on social protection (Cobb, 1976). This scale has 23 items which take into account family, friends and others. The choice of this scale are very agreed, agree, disagree and the very opposite. The test is scored from 1 to 4 in which Score of 4, 3, 2 and 1, is for much agree, agree, disagree or very disagree, respectively. Grades 3, 10, 13, 21 and 22 are scored reversely. CD_RISC questionnaire was developed in 2003 with a review of research on resilience in 1979 and 1991 (Krokavcova et al., 2008). This is a 25-item instrument that measures the resiliency in a Likert scale of zero to four. Minimum score on this scale is zero and the maximum is hundred.

RESULTS

The sample consisted of 108 patients with multiple sclerosis in the age range 14-51 years. Almost 60% of them were married and 40% were single. 37% (n = 40) of patients were between 23 to 31 years, 33% (n = 36) between 32 to 40 years, 19% (n = 21) between 41 to 51 years and 10% of them (n = 11) between 14 to 22 years.

In this study, the minimum score of respondents in a total of 25 questions was 18 and the maximum was 93 scores. average of the resiliency scores of the patients was 58 and the standard deviation was about 17, which shows the resiliency for more than half of the respondents were between 41 and 75 (table 1). Among the components of social support, "others support" and "family support" were the strongest components with an average of 94.2 and "Friends support" was the weakest component of social support in this study, with an

Table 1. Descriptive statistics of the resiliency

Variable	number of questions	minimum of scores	Maximum of scores	mean	Standard deviation
Resiliency	25	18	93	58.01	16.64

Table 2. Descriptive statistics of the scores of social support and its components

variable	Components	number of questions	Minimum of scores	Maximum of scores	mean	Standard deviation	Weighted Average
Social support	Others support	8	14	31	23.52	3.88	2.94
	family support	8	8	32	23.50	5.23	2.94
	Friends support	7	11	28	19.96	3.85	2.85
	total	23	41	90	66.98	11.40	2.91

Table 3. Results of the Pearson correlation coefficient for the relationship between social support and resiliency

Variable	Mean	Standard deviation	r	Significant level
Social support	66.98	11.40	0.449	0.001
Resiliency	58.01	16.64		

Table 4. Beta coefficients to identify the impact of each of the components of social support on Resiliency.

Variables	β	Standard error	Beta	t-value	Significant level
Fixed rate	12.781	9.228	-	1.385	0.169
Family support	0.506	0.444	0.159	1.140	0.257
Friends support	0.226	0.502	0.052	0.451	0.653
Others support	1.226	0.679	0.285	1.806	0.074

Table 5. The beta coefficients to determine the effect of perceived social support on resiliency.

variables	β	Standard error	Beta	t-value	Significant level
Fixed rate	14.122	9.228	-	3.641	0.001
Total of social support	0.655	0.128	0.449	5.172	0.001

Predictor variables: the perceived social support
 Criterion variables: Resiliency

average of 85.2. Average score of cognitive distortions is 98.66 which is higher than the expected mean of 46 (table 2).

Pearson correlation coefficient indicates a significant and positive relationship between the "total social protection" and "resiliency" ($p < 0.01$, $r = 0.449$) and suggests that higher levels of social support of patients with multiple sclerosis makes higher levels of their resiliency (table 3).

Due to the significant amounts of Beta and t values observed in table 4, we understand that none of the components of perceived social support, alone, regardless of other components, have not significant and unique contribution to the prediction of patients'

resiliency, because in each of them, the t values is higher than the 0.05 (table 4). But the sum of the components that make up the total of perceived social support can predict the level of patients resiliency. Results of univariate regression analysis that the total of perceived social support considered as a predictor variable is shown in Table 5. According to table 5, perceived social support has a significant and positive impact on patients resiliency ($p < 0.01$, $\beta = 0.449$) and it is able to predict the amount of resiliency.

The resiliency of patients with multiple sclerosis, according to the total of perceived social support is the score of perceived social support $\times 66\% + 14.12$.

DISCUSSION

The purpose of this study was prediction of resiliency in patients with multiple sclerosis based on social support. This research was carried out under the assumption that there is a significant relationship between social support and resiliency in patients with multiple sclerosis. Given that significant level of correlation was less than 0.01 ($p < 0.01$, $r = 0.449$) it can be said that whatever the level of social support of patients with multiple sclerosis is higher, level resiliency will also be higher. Research done by people who have high resiliency have shown that resiliency is a mediator of individual protection against the harsh conditions. Thus, high resiliency can reduce the negative effects of stress on health.

Chan, C.W and colleagues in 2004 showed that Perceived social support can positively influence on the physical, psychological and social status and significantly enhances the performance of the individual (Chan et al., 2004). This result is consistent with research of Krokavcova and (2008) and Dennison L (2009) that they found that social support can increase the adaptability of patients with MS and they showed that Social support can facilitate adaptation to the disease by creating positive emotions, and reduce response to physical illnesses (Krokavcova et al., 2008; Dennison et al., 2009).

Also Hadavand khani and colleagues (2013) pointed out that there is a significant positive correlation between hardiness and mental health and social support in women with MS, in other words, a woman with multiple sclerosis who has higher hardiness also have better mental health (Hasan et al., 2013). Schroevers (2003) argued that supportive and social resources can have a decisive role in the adaptation process with life crises such as chronic diseases. Therefore, one of the key roles of the family and the medical team is preparation of a supportive environment (Schroevers et al., 2003). Ghasemi M. (2011) in a research on the relationship between social support and quality of life in patients with multiple sclerosis concluded that there is a direct relationship between group membership and network with quality of life, and individuals with greater involvement in social relationships, have a higher quality of life (Ghasemi and Nazari, 2011).

In this study, we found a significant and positive relationship between social support and resiliency ($p < 0.01$, $r = 0.449$). 19% of resiliency variance of patients was due to social support, but others components (family, friends and others support) either alone predict a smaller share of the resiliency. Social support of the patients seems necessary to increase patient resiliency.

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