The Relationship Between Spiritual Well-Being and Perceived Social Support in Patients With Multiple Sclerosis

Fatemeh nazari (nazari@nm.mui.ac.ir)
Isfahan University of Medical Sciences
Vahid Shaygannejad
Isfahan University of Medical Sciences

Research

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Abstract

Background: Multiple sclerosis (MS) is the most common neurological disease with disabling consequences. Social support is an important aspect of performance among patients and attention to perceived social support as a factor influencing health promotion is essential. Therefore, this study was performed with the aim to determine the relationship between spiritual well-being and perceived social support in patients with MS.

Methods: This cross-sectional and correlational study was conducted on 120 patients with MS. The participants were over 18 years of age and referred to the MS Clinic of Kashani Hospital, Isfahan, Iran. The subjects were selected using convenience sampling. Data were collected using questionnaires and analyzed using descriptive and inferential statistics in SPSS software. P-values of less than 0.05 were considered significant.

Results: The mean (SD) disease duration and age of participants were 8.1 (5.9) and 33.67 (8.7) years, respectively. Moreover, 75.9% of the participants were women and 76.1% were married. The mean score of spiritual well-being was 87.08. The mean score of perceived social support was 61.52 (14.9). Pearson correlation test indicated a direct relationship between spiritual well-being and the total score of perceived social support ($r = 0.415$, $P < 0.001$) and the emotional ($r = 0.328$, $P = 0.004$) and informational ($r = 0.311$, $P = 0.006$) dimensions, but not the instrumental dimension ($r = 0.197$, $P = 0.081$). Multiple linear regression analysis showed a significant correlation between spiritual health and social support in the emotional dimension ($P < 0.05$)

Conclusion: This study confirmed the relation between perceived social support and spiritual well-being of people with MS. Thus, it is necessary that perceived social support, as a strong predictor of spiritual health status, is considered in the designing of health promotion interventions for patients with MS.

Background

Multiple sclerosis (MS) is a chronic autoimmune central nervous system (CNS) disease that is associated with demyelination of axons in the brain and the spinal cord, leading to progressive neurological damage and a set of disabling symptoms (1–3). The results of previous studies show that 85% of individuals with MS have 15–50 years of age (4). Today, around 2.5 million people worldwide are affected by MS (5). In a study conducted by Etemadifar and Maghzi in 2010, the incidence of this disease in Isfahan, Iran, was reported to be 71.6 per 100,000 people. Therefore, Isfahan can be recognized as an area with a medium to high risk of MS (6). MS often leads to an early or overall reduction in physical, social, and cognitive functions of the individual, and affects the quality of life (QOL) of the patient and his/her family (7). One of the key factors affecting QOL is health status. Based on the definition provided by the World Health Organization (WHO), health has physical, psychological, social, and spiritual dimensions (8). Spiritual health is one of the fundamental concepts in chronic diseases and, as one of the health dimensions, causes its other dimensions to be integrated. In addition, by creating meaning and purpose in life, it is

considered as an important approach to promoting general health and QOL (9). Some researchers have shown that spirituality has a meaningful relationship with a person's overall health, and that without spiritual health, the biological, psychological, and social dimensions cannot function correctly or reach their maximum capacity, and therefore, the highest level of QOL cannot be achieved (8). However, the results of the study of Allahbakhshian et al. in Isfahan showed that the spiritual health of MS patients is at a moderate level (9).

Social support is among the factors that seem to play an important role in maintaining individuals' health and reducing the negative effects of many pressures from the environment and society (10). Social support is one of the most important forms of social relations, and its possession or lack of possession, perception of it, and the need for it can vary according to age, gender, personality, and even culture (11). Social support has been defined as an individual's understanding or experience of love, companionship, care, respect, attention, and assistance received by others, and mutual assistance and commitments of part of a social network (12). Social support, as an emotional coping method, can protect people by preventing stressful situations such as chronic diseases and help them to assess stressful events in such a way that it is less threatening (10). Using Durkheim's hypothesis, researchers have tried to understand the relationship between social support and health. Their argument is that poor social unity has deprived individuals of social support and placed their health at risk, on the contrary, high levels of social support protects people from disease (13).

The existence of an accessible supportive system is essential and may include marital relationship and relationships with friends, family, colleagues, and professionals. An important issue on social support is the perception towards its adequacy and accessibility, and satisfaction with receiving it (10, 14). The perception and attitude of the patient towards the support received is more important than the amount of support received. Different sources believe that the perception of receiving social support can play an important role in the advanced stages of a chronic illness and protect the individual from disease-induced stresses and reduce the negative psychological outcomes caused by physical defects (15). Researchers have presented two theories on how perceived social support affects health; the buffer-stress and direct effects hypotheses. Based on the buffer-stress hypothesis, perceived social support affects individuals' health by protecting them from the negative effects of severe stress. The direct effects hypothesis states that regardless of the amount of stress, perceived social support is beneficial for health, and individuals who enjoy a significant amount of social support have a higher sense of belonging and self-esteem. The positive attitude created by such a situation, regardless of the level of stress, may be beneficial for an individual, for example, by making him/her resistant to infection. Some evidence also suggests that high social support encourages people to choose a healthier lifestyle (16).

Although the issue of social support has been less discussed, it is one of the areas related to nursing that embraces a wide range of life aspects, plays a vital role in promoting adaptation to chronic diseases, including MS, and improves the healing outcomes. Nurses can act as a source of support for family caregivers in a variety of ways, such as facilitating economic supports for the families of patients, mobilizing the social support networks of the client, and establishing a relationship between the client

and the relevant social resources. Nurses can provide informational support by providing clients with information about self-care or educating members of the client's social network (17). Social support plays an important role in maintaining the health of individuals and contributes to reducing the negative effects of the high rate of stresses acquired from the environment and society. It also has a direct impact on QOL, and will reduce the individual's vulnerability to stress, depression, and different mental and physical illnesses (18). Studies show that the identification of perceived social support by patients can be effective in promoting their adaptive behaviors and provide appropriate community support (19). A review of studies showed that, in most studies, there was a significant relationship between perceived social support and mental and social well-being, meaning that perceived social support has a positive impact on mental, physical, and social health (19). Existence of social support in individuals, in addition to the reduction of blood pressure, neurotic headaches, gastrointestinal disorders, and etc., also enhances self-esteem and dignity in individuals (20).

In general, the above points show that social support and positive social relationships have positive effects on the physical, sociopsychological, and economic well-being of patients. They also reduce the severity of disease symptoms, improve the patient's QOL, feeling toward life, and ability to cope with the disease, and create a better public evaluation of life. Moreover, perceived social support plays an important role in reducing the negative effects of the disease on the mental aspects of patients, is an important soothing factor for economic concerns, and is accompanied by less distress, a greater sense of control, improved self-esteem, decreased effects of negative events on life, and improved QOL (21). On the other hand, it was pointed out that the level of spiritual health is not high in patients with MS (9), and comprehensive attention to the health status of patients with MS is considered to be of the requirements of the health system of each country. Thus, in order to identify the factors related to spiritual well-being, considering the various effects of social support on various aspects of life, researchers tried to examine the relationship between these two concepts. A relationship that, if present, can be exploited to strengthen the spiritual well-being of patients with MS. Most nursing models emphasize on the holistic approach to care, and nurses are always urged to be committed to the concept of holistic care and, in addition to the physical, mental, emotional, and social needs of patients, to recognize their spiritual needs and support them. Thus, nurses can play a valuable role in this regard. Given the fact that MS affects the way the person lives, it causes many problems in all physical, mental, social, economic, and familial aspects, and causes patients to be dependent on others and less capable of supporting others. Moreover, they cannot participate in common social activities. All of these problems, along with long hospitalizations, frequent visits to the physician, and various treatments and their complications and high costs reduce the QOL of patients. Increased spiritual well-being in these patients can reduce their problems due to its positive effects. Therefore, the aim of this study was to investigate the relationship between spiritual well-being and perceived social support in patients with MS in Isfahan.

Methods

This cross-sectional and correlational study was performed on 120 women suffering from MS from 6th July 2015 to 21st November 2015. The women were over 18 years of age and referred to the Specialized

MS Clinic of Kashani Hospital, Isfahan. The participants were selected using convenience sampling method. The inclusion criteria included suffering from MS (recurrent, primary progressive, and secondary progressive), definitive diagnosis of MS by a neurologist based on McDonald's criteria, the passage of at least 1 year since diagnosis, lack of any attacks and relapse in the past 3 months, Farsi speaker, literacy, willingness to participate in the study, the absence of physical or cognitive defects that are the cause of incorrect responses to the questions and an Expanded Disability Status Scale (EDSS) score of less than 5.5. To determine the EDSS score, the function of the extrapyramidal, cerebellum, brainstem, sensory, urinary and excrement, visual, and brain systems must be investigated. The total score of this scale ranges between 0 and 10. A score of 0, 1-4.5, 5-5.5, 6, 6.5, 7-9.5, and 10, respectively, signifies normal nervous condition, a person who is totally competent and does not require help, inability to perform daily activities, the need for one-sided support for the patient, need for mutual support, significant damage in the organs and the need for a wheelchairs, and 10 points represent death due to MS. The sample size was calculated using the estimate of the correlation coefficient between the spiritual health score and perceived social support score of at least 0.25 (19), a confidence interval of 0.95, and test power of 0.84.

After obtaining permission from the research deputy of Isfahan University of Medical Sciences, Iran, and the officials of Kashani Hospital, the researcher began sampling from among the patients who referred to the MS Clinic of this hospital.

Then, the objectives of the study, the study method, and the subjects' rights were explained for the participants and they were asked to sign an informed consent form.
Then, the questionnaire was distributed among them and the necessary explanations were provided. All data were collected through interviews by an interviewer. The data collection tool used in this study consisted of a demographic characteristics form (including age, gender, marital status, educational level, and clinical trend of the disease), and the EDSS and Spiritual Well-Being Scale (SWBS) (Ellison and Palutzian) (22). The SWBS includes 20 questions scored based on a 6-point Likert scale ranging from totally agree to totally disagree. This scale is divided into two subscales of religious and existential well-being, each of which includes 10 items with a total score of 10 to 60. Odd items show religious well-being and even items indicate existential well-being. The total score of the scale was the sum of these two subscales, which ranges between 20 and 120. According to the scores obtained, spiritual well-being is divided into high (100–120), medium (41–99), and low (20–40) levels. The reliability of this tool has been determined by Abbasi et al. using Cronbach's alpha ($\alpha = 0.87$) (23). Furthermore, the reliability of the SWBS was approved by Rezaeei and Fatemi in 2006 with a Cronbach's alpha of 0.82 (24).

Perceived social support was measured using the Perceived Social Support Inventory developed by Cheraghi and DavariDolatabadi (25) in the three dimensions of emotional support, informational support, and instrumental support. Emotional support includes the emotions of empathy, love, affection, trust, acceptance of the patient, and respect for the patient. Informational support contains information or advice that can help the person to adapt to problems and solve them. The instrumental support includes tangible assistances including the provision of services, assistance in activities, financial support, and other assistances provided to the client. The questions of the SWBS are scored based on a scale of

repetition of action ranging from never (1 point) to always (4 points). The total score of the scale is the sum of these points and in the range of 30 to 120. A higher score indicates a greater perception of support by the patient for each question. According to the obtained scores, perceived social support was divided into high (higher than 90), medium (60–90), and low (less than 60) levels. The validity and reliability of this tool were determined through content validity and Cronbach's alpha (α = 87%), respectively. To evaluate the reliability of the SWBS in this study, its internal consistency was determined using Cronbach's alpha, which was, respectively, 0.85, 0.89, and 0.82 for the emotional, informational, and instrumental support structures.

After completing the questionnaires, the collected data were analyzed using SPSS software (version 18.0, SPSS Inc., Chicago, IL, USA). The significance level in all tests was considered to be less than 0.05. Descriptive (frequency, mean and standard deviation) and inferential (linear regression) statistics were used for data analysis to reach the research goals and answer the research questions.

Results

Of the 135 completed questionnaires, 120 questionnaires could be analyzed (response rate = 90%). The mean disease duration and age of participants was 8.1 (5.9) years and 33.67 (8.7) years, respectively, and 70.8% were women and 74.2% were married. In addition, 44.2% had a university degree, 50.4% were housewives, and 61.7% had a clinical pattern of recurrence and recovery (Table 1).

Table 1
Distribution of the demographic characteristics of subjects

Variable		Number (percentage)
Type of clinical course	RRMS	74 (61.7)
	PPMS	18 (15.0)
	SPMS	28 (23.3)
	Total	120 (100)
Employment status	Unemployed	13 (10.9)
	Housewife	58 (48.4)
	Student	14 (11.6)
	Worker	5 (4.1)
	Retired	4 (3.4)
	Employee	18 (15.0)
	Business	8 (6.6)
	Total	120 (100)
Level of education	Illiterate	3 (2.5)
	Elementary	8 (6.7)
	Guidance school	19 (15.8)
	High school	37 (30.8)
	University degree	53 (44.2)
	Total	120 (100)
Marital status	Single	31 (25.8)
	Married	89 (74.2)
	Total	120 (100)
Sex	Female	85 (70.8)
	Male	35 (29.2)
	Total	120 (100)

RRMS: Relapsing-remitting multiple sclerosis; PPMS: Primary progressive multiple sclerosis; SPMS: Secondary progressive multiple sclerosis

Variable	Number (percentage)
Age(Years)	Mean = 33.67 SD = 8.7
RRMS: Relapsing-remitting multiple sclerosis; PPMS: Primary progressive multiple sclerosis; SPMS: Secondary progressive multiple sclerosis	

The average of the total spiritual well-being score of participants was 87.08 (19.9). The spiritual well-being level of 64% of the subjects was at a high level, 32.5% at an average level, and 3.5% at a low level. The mean total score of perceived social support of the participants was 61.52 (14.9); 49.4%, 46.2%, and 4.4% were, respectively, at a low, average, and high level. The average perceived social support score was 30.09 (7.84) in the emotional dimension, 17.6 (5.11) in the instrumental dimension, and 14.87 (4.23) in the informational dimension. Multiple linear regression analysis showed a significant correlation between spiritual health and social support in the emotional dimension ($P < 0.05$) (Tables 2 and 3)

Table 2
Pearson's correlation coefficient between spiritual well-being and the total score of social support and its dimensions

Dimensions of social support	Emotional support		Instrumental Support		Informational support		Total social support	
Variable	r	P-value	r	P-value	r	P-value	r	P-value
Spiritual well-being	0.004	0.328	0.081	0.197	0.006	0.311	0.001	< 0.415

Table 3
Linear Regression between spiritual well-being and the dimensions of social support

Dimensions of social support	Spiritual well-being			
	β	SE	t	P-value
Emotional support	0.482	0.389	3.074	0.003
Instrumental support	-0.098	0.793	-0.609	0.540
Informational support	0.072	0.523	0.519	0.606

Discussion

The findings of this study showed a significant positive relationship between the spiritual well-being score and total score of perceived social support, and the emotional and informational dimensions of social support. However, the emotional dimension had a more significant relationship with spiritual well-being than the other dimensions of social support, which was in agreement with the results of the study by Spinale et al. (26). The results of this research indicated that social support, through playing a

mediating role between life stressors and the occurrence of physical and mental problems, and empowerment of individuals' cognition, reduces the experienced tension, increases survival rate, and improves the QOL of individuals. Moreover, favorable social support leads the individual toward physical health and psychological and spiritual well-being (27, 28). The findings of Krokavcova et al. showed that social support provided by family and friends has a positive relationship with perceived mental health in patients with MS, and social support provided by others has a significant direct relationship with general health dimensions based on the SF-36 scale (29).

In the present study, 64% of patients with MS had high spiritual well-being which was consistent with the study by Rezaeei and Fatemi (24). Nevertheless, in the study by AllahBakhshian et al., spiritual well-being was at an average level (9); the reason for this difference may be the sample size of the two studies. In fact, spirituality is an important source of power and support throughout life, helping to escape critical and stressful situations, and high spiritual well-being indicates that other dimensions of human existence are in balance (30).

In the present study, the level of perceived social support was low in patients with MS, and this finding was consistent with the study of Cheraghi et al. (31). However, the study by Ghodusi Burojeni et al., with the aim to investigate the correlation of perceived social support with some demographic factors in patients with MS, showed that social support was at an average level in a significant proportion of patients (32). The findings of Krokavcova et al. showed that low perceived social support is a predictor of MS (29). Patients with MS have less social communication due to multiple physical and spiritual symptoms and its impact on all dimensions of QOL, and with decreasing social network, their social support sources decrease. Therefore, their perceived social support is diminished. On the other hand, with the prolongation of the disease process, the communication network members gradually develop chronic fatigue and the level of social support provided decreases. Based on the results of this study, it can be stated that having social support, especially in the emotional dimension (acceptance of the patient and feelings of trust and respect for the patient), in addition to physical well-being, can result in the improvement of health in all aspects and QOL.

Among the limitations of this study were the small size of the statistical population and the performance of the study in one city. Therefore, it is recommended that future studies be carried out with a larger sample size in different cities with different cultures and in different age groups. The lack of cooperation of the subjects was another constraint of this study; despite the necessary explanations and obtaining the consent of participants for cooperation, 15 of the participants refused to cooperate. Another limitation of this study was the psychological and emotional conditions of patients with MS that could affect their accuracy in responding; in this study, the researchers tried to address this issue by interviewing the subjects. Furthermore, this data is derived from a cross-sectional study, so that analysis cannot interpret causal relationships, and longitudinal studies can help identify the cause and outcome of the relationship. Carrying out qualitative researches in this respect is recommended in order to better understand how social support affects spiritual well-being and its impact on improved QOL.

Conclusion

There was a significant relationship between spiritual well-being and perceived social support in emotional and informational dimensions as well as overall social support. The level of perceived social support and its dimensions, especially the emotional dimension, had a positive relationship with the level of spiritual well-being of the patients. Therefore, it is necessary to take measures in order to use this ability during the treatment period of these patients. Thus, it is recommended that the treatment team, especially the nurses, who are the main members of the treatment team and the leaders of the care process, become familiar with ways to promote social support, and use this potential to address these patients' problems. It is also recommended that support resources be increased for these patients as part of the treatment process.

Abbreviations

MS: Multiple sclerosis; CNS: Central nervous system ;SWBS: Spiritual Well-Being Scale; QOL: quality of life; EDSS: Expanded Disability Status Scale; QOL: Quality of life; WHO: World Health Organization.

Declarations

Ethics approval and consent to participate

This research was approved by the Ethics Committee of Isfahan University of Medical Sciences No. 294143. Then, written informed consent was obtained from all patients.

Consent for publication: Not applicable
Availability of data and material: The datasets generated and/or analyzed during the current study are not publicly available due but are available from the corresponding author on reasonable request

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Authors' contributions; Mrs. FN contributed primarily to the Conception, Design, interview, analyzing, and interpreting the data and writing the manuscript. Dr. VSH contributed in the design, Data interpretation, manuscript writing and editing and supervision and final approval of the version to be published, and authors have read and approve the final version of manuscript.

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