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The Effect of Spiritual Well-Being on Psychological Resilience in Patients with Multiple Sclerosis

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ABSTRACT

Objective: The present study purposed to explore the effect of spiritual well-being (sp) on psychological resilience in patients with Multiple Sclerosis (MS). **Materials and Methods:** The present cross-sectional study was conducted in the a State Hospital's Neurology outpatient polyclinics and an inpatient clinic between July and September 2024. Sixty-eight (68) patients with MS participated in the present study. Brief Resilience Scale (BRS) and Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being Scale (FACIT-Sp) were utilized to gather data. **Results:** It was found that patients' total mean scores was 21.07±8.92 for FACIT-Sp and 14.02±6.17 for BRS. There was a statistically positive and strong relationship between FACIT-Sp and BRS ($r=0.910$, $p<0.01$). Additionally, it was found that sp predicted psychological resilience by 82% **Conclusion:** In the study, it was stated that the sp and psychological resilience of the patients were low level. It can also be said that the level of sp of patients with MS may positively affect their psychological resilience.

Keywords: Spiritual Well-Being, Resilience, Multiple Sclerosis.

Multipl Skleroz Hastalarında Ruhsal Refahın Psikolojik Dayanıklılık Üzerindeki Etkisi

ÖZ

Amaç: Bu çalışma, Multiple skleroz hastalarında manevi iyi oluşun psikolojik sağlamlığa etkisini belirlemeyi amaçlamaktadır. **Gereç ve Yöntem:** Kesitsel türdeki bu çalışma Temmuz-Eylül 2024 tarihleri arasında bir devlet hastanesinin nöroloji poliklinikleri ve kliniğinde yürütüldü. Mevcut çalışmaya 68 Multiple Skleroz hastası katıldı. Verileri toplamak için Kısa Psikolojik Sağlamlık Ölçeği (KPSÖ) ve Manevi İyi Oluş Ölçeği (MİÖÖ) kullanıldı. **Bulgular:** Hastaların MİÖÖ toplam puan ortalaması 21.07±8.92, KPSÖ toplam puan ortalaması 14.02±6.17 olarak bulundu. Manevi iyi oluş ile psikolojik sağlamlık arasında pozitif yönlü güçlü bir ilişki vardır. Ayrıca, manevi iyi oluşun psikolojik sağlamlığı %82 oranında yordadığı da bulundu. **Sonuç:** Çalışmada, hastaların manevi iyi oluş ve psikolojik sağlamlık düzeyinin düşük olduğu belirlendi. MS hastalarının manevi iyi oluş düzeyinin psikolojik sağlamlığı olumlu olarak etkileyebileceği de söylenebilir.

Anahtar Kelimeler: Manevi İyi Oluş, Sağlamlık, Multiple Skleroz.

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INTRODUCTION

Multiple sclerosis is chronic, common neurological, and an autoimmune disease that affects the brain and spinal cord areas of the central nervous system (Esmaili et al., 2014; Rainone et al., 2017). It is also characterised by many symptoms, including long-term physical disability, blindness, cognitive alterations, numbness, and weakness (Iranmanesh et al., 2014). The severe symptoms and recurrent nature of the disease affect patients' independence and abilities. All these cause patients to face with many difficulties (Allahbakhshian et al., 2011b; Ghabaee et al., 2016). It can be asserted that each patient has a different way to deal with these difficulties caused about by the disease. One of these ways is psychological resilience. Psychological resilience is the individual's ability to successfully come through and accommodate to these negative conditions despite very difficult conditions (Black & Dorstyn, 2015). Psychological resilience can contribute to the alleviation of physical and emotional distress associated with chronic diseases, including neurodegenerative diseases (Gallo & Bisecco, 2021). The related studies have reported that MS patients are less resilient than the general population and other disability groups (Silverman et al., 2017; Terrill et al., 2016). Another concept included in the coping ways of patients with MS is sp.

Health is not only physical well-being but also mental, social, and sp. On account of make strong the mental and physical health of patients with MS, their spiritual health should also be promoted. Sp considered as two dimensions: religious and existential. While the religious dimension is explained as believing in a superior power or a God, the existential dimension can be identified as trying to understand the purpose of life and meaning (Allahbakhshian et al., 2011b). Chronic diseases such as MS bring up many questions about the purpose of life and meaning. Here, spiritual well-being can ensure significant assist in finding answers to these questions. Spiritual health is emphasised to serve a vital role in strengthening individuals' capacity to deal with the consequences of the disease (Niyazmand et al., 2018). Mohr et al., (1999) indicated that spirituality had a vital role in the lives of MS patients (Mohr et al., 1999). Another study reported that the spiritual health of MS patients was moderate (Allahbakhshian et al., 2010a).

The inability to fully treat MS and its long-term nature negatively affect the patients. On account of deal with this condition, patients required to feel spiritually well and be psychologically resilient. Smith et al., (2013) indicated that sp can improve psychological resilience by positively affecting healthy behaviours, life satisfaction, positive emotions, social support, and family ties (Smith et al., 2013). Fombuena et al.,'s study (2016) on individuals with advanced diseases (such as cancer, heart disease, kidney failure, and neurological diseases) emphasised that sp and psychological resilience were correlated (Fombuena et al., 2016). Psychological resilience helps nurses and

nursing students cope with the rigors of education, manage academic stress, and prepare for the emotional demands of patient care. Furthermore, resilient nurses and nursing students cope with the emotional complexities inherent in the healthcare environment and ensure the delivery of quality and compassionate patient care (Liu et al., 2024; Thomas & Asselin, 2018). Considering the related studies, the concepts of spiritual care and psychological resilience appear to assume a vital act in holistic care in contemporary nursing. Nurses—the primary ones responsible for the care of patients— have vital responsibilities in this respect. They should identify the spiritual care needs of patients, plan interventions to strengthen their psychological resilience and assure care accordingly. In this study, it was hypothesised that elevated sp levels of patients with MS would have a positive effect on psychological resilience.

The study's questions:

- What is the sp level of patients with MS?
- What is the psychological resilience level of patients with MS?
- Is there a relationship between sp and psychological resilience in patients with MS?

MATERIALS AND METHODS

Type, Sample, and Procedures of the Study

As a result of the literature review, no study examining the relationship between 'Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being Scale' and 'Psychological Resilience Scale' in patients with MS was found, but the study closest to the current study, Nazari & Shaygannejad, (2021) data from the 'The relationship between spiritual well-being and perceived social support in patients with multiple sclerosis' study were used (Nazari & Shaygannejad, 2021). In this study, the relationship between the 'Spiritual Well-Being Scale' and the 'Perceived Social Support Inventory' was found to be significant ($r=0.415$). The sample size was calculated at 95% confidence level using the "G.Power-3.1.9.4" program. Since the study aimed to examine the relationship between spiritual well-being and psychological resilience in patient with MS, it was assumed that Pearson correlation analysis would be performed. The minimum sample size was determined as 28, with the effect size of the study being 0.64, the α value being 0.05, and the power being 0.95. Purposive sampling method was used. It was purposed to reach the whole population. This cross-sectional study' population occurred of 75 patients diagnosed with MS who applied to or were treated in the neurology outpatient clinics and inpatient clinic of a State Hospital between July and September 2024. However, four patients refused to participate in the study. Three patients who were diagnosed with a psychiatric disease were not included in the study. The study was fulfilled with 68 patients with MS. The patients included in the study were those who were at least 18 years old, capable of communication,

volunteered participated in the study, diagnosed with MS, had no dementia, alzheimer, any other organic mental disorder or any psychiatric diagnosis.

The second researcher gathered the data through face-to-face interview. The second researcher read the questions on the measures to the patients and noted them with respect to their answers. In neurology outpatient polyclinics, patients with MS are diagnosed, treated, and followed up. In neurology inpatient clinic, patients with MS are treated and followed up. There are 20 beds in the neurology inpatient clinic.

Measures

Descriptive Features Form: This form contains of 6 questions, including marital status, educational level, age, gender, employment, and duration of illness.

Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being Scale (FACIT-Sp): It was explored by Ellison and Paloutzian (1982) and its Turkish reliability and validity study was performed by Aktürk et al., (2017) (Cronbach's α 0.81-0.89) (Paloutzian & Ellison, 1982; Aktürk et al., 2017). The present scale is five-point Likert-type containing of twelve items. It contains three subdimensions: meaning subdimension, peace subdimension, and faith subdimension. Each item is pointed between 0-4 points. Items 4 and 8 are reverse pointed, while the other items are scored straight. The min-max score of the scale ranges from 0-48. Higher total scores indicate an elevated level of spiritual well-being. The Cronbach's α was calculated as 0.90 for the present study.

Brief Resilience Scale (BRS): It was explored by Smith et al., (2008) and its Turkish reliability and validity study was carried out by Doğan (2015) (Cronbach's α 0.83) (Smith et al., 2008; Doğan, 2015). The current scale is a five-point Likert-type containing of six items.

Each item is pointed between 1-5 points. Items 2, 4 and 6 on the scale are reverse pointed. Total score of the scale ranges between 6-30 points. Higher total scores signify high psychological resilience. The Cronbach's α was found as 0.91 for the current study,

Statistical analysis

The present study's data analyzed by Statistical Package for Social Sciences 25.0 program. $p < 0.05$ was took noticed significant for the study. Cronbach's α coefficient was utilized in the internal consistency analysis of the scales. Percentage distribution was utilized to define the descriptive features, arithmetic mean was utilized to define the total mean scores of the scales, Mann Whitney-U and Kruskal Wallis tests were utilized to compare the descriptive features and the total mean scores of the scales, correlation (Pearson's correlation) was utilized to compare the scales, and Linear Regression analysis was utilized to define how the scales affect each other.

Ethical approval

Firstly, approval from the Ethics Committee (Approval Number: 2024/645588) and official permit from the a State Hospital. Patients were instructed on the study's purpose and that their knowledge would be kept private and that they could draw back from the study at any time. Additionally, the present study was conducted taking into account the Principles of the Declaration of Helsinki and by getting written consent from the patients with an 'Informed Voluntary Consent Form'.

RESULTS

A total of 32.4% of the patients were in the 29–39 age group, 51.5% were women, 38.2% were illiterate, 70.6% were married, 69.1% were unemployed, 44.1% had had the illness for 0-5 years (Table 1).

Table 1. Comparison of subscales of FACIT-Sp and FACIT-Sp total mean scores and BRS total mean scores of the patients with MS in terms of their descriptive features (n=68).

Descriptive Features				Meaning	Peace	Faith	FACIT-Sp Total Score	BRS Total Score
		n	%	$\bar{x} \pm SD$	$\bar{x} \pm SD$	$\bar{x} \pm SD$	$\bar{x} \pm SD$	$\bar{x} \pm SD$
**Age groups	18-28	14	20.6	8.64±3.31	8.07±2.81	8.50±2.24	25.21±7.88	17.57±5.13
	29-39	22	32.4	8.00±3.72	7.95±3.65	5.54±2.52	24.50±9.58	16.13±6.46
	40-50	20	29.4	5.80±2.48	5.40±2.83	7.75±2.40	18.95±6.73	12.70±4.96
(years)	51 and older	12	17.6	3.41±2.74	3.25±2.56	6.83±2.55	13.50±6.45	8.25±3.74
	Test value			KW=18.168	KW=19.594	KW=5.078	KW=17.893	KW=19.120
	p			0.000	0.000	0.006	0.000	0.000

Table 1. (Continued) Comparison of subscales of FACIT-sp and FACIT-sp total mean scores and BRS total mean scores of the patients with MS in terms of their descriptive features (n=68).

Descriptive Features				Meaning	Peace	Faith	FACIT-Sp Total Score	BRS Total Score
		n	%	$\bar{x} \pm SD$	$\bar{x} \pm SD$	$\bar{x} \pm SD$	$\bar{x} \pm SD$	$\bar{x} \pm SD$
Gender	Male	33	48.5	7.06±3.65	6.75±3.70	7.90±2.82	21.72±9.72	14.60±6.28
	Female	35	51.5	6.31±3.57	6.05±3.39	8.08±2.11	20.45±8.19	13.48±6.10
	Test value			MN-U=509.500	MN-U=515.500	MN-U=570.500	MN-U=528.500	MN-U=504.500
	Significance			0.388	0.439	0.930	0.546	0.365
**Education status	Illiterate	24	35.3	3.91±2.30	3.41±2.20	6.83±6.36	14.16±5.24	9.62±3.63
	Primary	18	26.5	5.27±2.49	5.50±2.45	7.16±1.72	17.94±6.22	11.05±4.58
	High school or university	26	38.2	10.19±2.03	9.76±2.02	9.65±2.18	29.61±5.74	20.15±3.42
	Test value			KW=42.017	KW=43.306	KW=22.006	KW=39.055	KW=41.151
	p			0.000	0.000	0.000	0.000	0.000
Marital status	Married	48	70.6	6.25±3.46	6.00±3.52	7.87±3.25	20.12±8.59	13.02±6.16
	Single	20	29.4	7.70±3.81	7.35±3.48	8.30±2.95	23.35±9.49	16.45±5.63
	Test value			MN-U=365.000	MN-U=368.500	MN-U=406.500	MN-U=368.500	MN-U=339.500
	p			0.110	0.127	0.311	0.132	0.056
Working status	Employed	21	30.9	9.80±2.71	9.52±2.61	9.80±1.99	29.14±6.87	18.90±5.45
	Unemployed	47	69.1	5.27±3.04	5.00±2.97	7.19±2.23	17.46±7.24	11.85±5.18
	Test value			MN-U=144.500	MN-U=135.000	MN-U=184.500	MN-U=135.500	MN-U=169.000
	p			0.000	0.000	0.000	0.000	0.000
**Duration of the illness (years)	0-5			8.53±3.13	8.20±2.92	9.10±1.98	25.83±7.66	16.93±6.01
	6-10	30	44.1	5.92±3.69	5.84±3.72	7.40±2.66	19.16±9.12	12.92±5.78
	11-17	25	36.8	3.84±1.72	3.30±1.54	6.61±2.10	13.76±3.78	9.46±3.50
		13	19.1					
	Test value			KW=16.426	KW=18.502	KW=12.429	KW=18.253	KW=15.117
	p			0.000	0.000	0.002	0.000	0.001

FACIT-Sp: Functional Assessment of Chronic Illness Therapy–Spiritual Well-Being Scale, **BRS:** Brief Resilience Scale

MN-U: Mann Whitney-U, KW: Kruskal Wallis, *p<0.05, **Tukey

Comparison of the patients' mean subscales of FACIT-Sp and FACIT-Sp total mean scores and BRS total mean scores according to descriptive features revealed statistically significant differences associated with educational status, age groups, working status,

and duration of the illness (p<0.05). However, there were no statistically significant differences with respect to the patients' gender and marital status in terms of the FACIT-Sp and BRS (p>0.05). The BRS total mean scores and FACIT-Sp total mean scores was the highest among patients with 18-28 age group,

high school or university, and 0-5 years duration of illness in the Tukey analysis (Table 1). The patients' FACIT-Sp total score was determined to be 21.07 ± 8.92 and their BRS total score was determined to be 14.02 ± 6.17 (Table 2). There was

a statistically positive and strong relationship between FACIT-Sp and BRS ($r=0.910$, $p<0.01$). Additionally, it was found that sp predicted psychological resilience by 82% (Table 3).

Table 2. Total Scores and Mean from FACIT-Sp, FACIT-Sp Sub-scales, and BRS Scale.

Scale	Min-Max Score	Mean $\pm$ SD
Meaning subscale	0-12	6.67 $\pm$ 3.60
Peace subscale	0-12	6.39 $\pm$ 3.54
Faith subscale	3-12	8.00 $\pm$ 2.46
FACIT-Sp total score	3-36	21.07 $\pm$ 8.92
BRS total score	6-24	14.02 $\pm$ 6.17

Table 3. The correlation and regression of BRS total mean score with FACIT-Sp total mean score.

FACIT-Sp Total Mean Score							
***Regression				**Correlation			
β	R	R ²	t	*p	df1, df2	F	
0.910	0.910	0.827	17.779	0.000	1.66	316.090	r 0.910
BRS Total Mean Score							*p 0.000

* $p<0.01$ **Pearson's correlation analyze *** Linear regression analyze

DISCUSSION

The findings from current study, which was carried out to explore the effect of sp levels of patients with MS on psychological resilience, were discussed based on the literature.

This study revealed that patients with MS had low levels of sp according to the mean total score of the scale and they got the highest point from the faith subdimension. Vizehfar & Jaberri found that the religious beliefs of MS patients were moderate (Vizehfar & Jaberri, 2017). The related studies reported that patients with MS had moderate sp levels (Allahbakhshian et al., 2011b; McNulty et al., 2004; Nazari & Shaygannejad, 2021; Niyazmand et al., 2018; Nsamenang et al., 2016). Previous studies also reported that MS patients had moderate sp levels and they had the highest score from the faith subscale (Ghabaee et al., 2016; Iranmanesh et al., 2014; Mohammadzadeh et al., 2017; Zarei et al., 2015). In their study, Shaygannejad & Mohamadirizi (2020) reported that the sp level of female patients with MS was high and they obtained the highest score from the faith subdimension (Shaygannejad & Mohamadirizi, 2020). In Turkiye, faith, praying, and believing in the existence of a holy spirit hold a considerable place in dealing with disease. Therefore, it can be asserted that

the highest score was obtained from faith subscale. The positive effects of sp influences not only the physical outcomes of the disease but also the ability to accomplish the psychological difficulties gave rise to by the disease. It can be asserted that patients with MS utilize spirituality as a dealing way to come through the negative circumstances associated with the disease.

In the present study, it was stated that patients with MS had low levels of psychological resilience according to the total mean score of the scale. Previous studies reported that patients with MS had moderate levels of psychological resilience (Hadianfard et al., 2015; Ploughman et al., 2020). It has been reported that patients with MS have lower psychological resilience compared to healthy controls, the general population, and other disabled groups (Pagnini et al., 2014; Setareh et al., 2017; Silverman et al., 2017; Terril et al., 2016). Psychological resilience has been reported to be positively related with the mental health of patients with MS and negatively related with psychiatric symptoms (depression, anxiety) (Hadianfard et al., 2015; Nakazawa et al., 2018). MS is a life-threatening disease that can result in impaired physical functioning, sensory loss, and dependency in patients.

It can be asserted that psychological resilience has an important role in coping with chronic diseases with severe symptoms such as MS and functions as a protective mechanism against negativities. It can be asserted that nurses have important responsibilities in protecting the mental health of patients with MS and improving their psychological resilience so that they can cope with the stressors associated with their chronic diseases. Resilience can also help nurses develop positive coping skills, respond quickly, and prevent potential psychological problems. Psychological well-being enhances clinical nurses' psychological characteristics, such as optimism, resilience, and self-confidence, which positively impact patient care. It helps them effectively cope with stressful events in the hospital environment and manage complex nurse-patient interactions. It maintains the quality of nursing care and patient satisfaction (Shen et al., 2024).

A significant correlation was determined between FACIT-Sp and BRS and age, educational level, employment, and disease duration, but no significant correlation was identified with gender and marital status. Additionally, the BRS and FACIT-Sp total mean scores was the highest among patients with 18-28 age group, High School or University, and 0-5 years duration of illness. It was determined that employed patients had a higher FACIT-Sp total mean score compared to unemployed ones. Zarei et al., (2015) stated that the level of sp of patients with MS varied significantly with their educational level and marital status. They found that those who had a university degree, were aged over 40 years, and were employed in the public sector had significantly higher scores (Zarei et al., 2015). Niyazmand et al., (2018) stated that there was a significant correlation of educational level with religious health, one of the subscales of spiritual health in patients with MS, but no significant correlation with age, marital status, and employment (Niyazmand et al., 2018). Allahbakhshian et al., (2011) found no significant correlation between the sp level of patients with MS and gender and marital status, but a significant correlation with their income status (Allahbakhshian et al., 2011b). Khari & Pazokian (2024) found that spiritual health had no significant correlation with gender but a significant correlation with the duration of illness (Khari & Pazokian, 2024). Another study carried out by Battalio et al., (2017) on adults with physical disabilities, including patients with MS, reported that age and gender were significantly correlated with resilience, whereas males were more resilient (Battalio et al., 2017). A study carried out by Terril et al., (2016) with physically disabled individuals, including patients with MS, they stated that individuals aged 65 years and older were significantly more resilient than middle-aged individuals (45-64 years) (Terrill et al., 2016). A study conducted by Turpin (2020) patients with MS reported that advanced age significantly varied with

resilience (Turpin, 2020). It can be asserted that spirituality and psychological resilience reduce as individuals' ability to cope with the disease diminishes with advancing age and duration of the disease. Chronic diseases such as MS can impose a serious financial burden on the individual, family, and society. The financial opportunities of employed individuals may have contributed to the level of sp and psychological resilience of MS patients, as it would facilitate access to the health care system and the treatment process. The higher educational level may enable patients to access more information about their diseases and treatment possibilities.

This study suggests that as the level of sp of patients with MS elevated, their psychological resilience also improved. No study that investigated the effect of sp on psychological resilience in patients with MS was examined in the literature. Sp contains a religious dimension that contains belief in a divine power and an existential dimension that involves the purpose of life and meaning. Patients' belief in a divine power against the difficulties they go through may help them to become stronger. This may contribute to the improvement of their psychological resilience. Furthermore, it could be asserted that sp has a vital role in coping with the disease and positively affects psychological resilience. Identifying the spiritual needs of patients with MS by nurses and improving their psychological resilience may contribute to the protection of their mental health.

Study Limitations and Strengths

The first restriction is that causality cannot be investigated sufficiently because of the cross-sectional type of the study. The second one is that the present study was carried out in only a hospital. The third one is that the current study was carried out with a little sample group.

CONCLUSION

The patients with MS were found to have low levels of sp and psychological resilience. Moreover, it can be asserted that as the sp levels of patients with MS elevated, their psychological resilience also improved. MS disease not only influences patients physically but also spiritually. For this reason, it may be suggested to emphasise the significance of spiritual care and psychological resilience in nursing care and to provide related trainings to nurses.

Nurses are of an important role in patient care. In contemporary nursing, nursing care has not only been restricted to medical care but is also tending towards holistic care, including spiritual care, social, and psychological. The notions of spiritual care and psychological resilience are also parts of holistic care. In this context, nurses should take notice the spiritual needs of patients while providing care and plan interventions to improve their psychological resilience while coping with their diseases. Thus, the

results of this study may lend to the improvement of the quality of holistic nursing care.

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Conflict of Interest

The authors declare no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Author Contributions

Plan, design: TYU, RDD; **Material, methods and data collection:** TYU, RDD; **Data analysis and comments:** TYU, RDD; **Writing and corrections:** TYU, RDD.

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Ethical Approval

Institution: Dicle University Ethics Committee

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