

⇒ Research Article



Comparison of the Effectiveness of Spirituality Therapy and Mindfulness-Based Training in Promoting Resilience of Multiple Sclerosis Patients

Hoda Karimi¹, Hasan Ahadi¹, Ahmad Borjali², Mohammad Hatami³

¹Department of Psychology, Kish International Branch, Islamic Azad University, Kish Island, Iran

²Department Clinical Psychology Allameh Tabatabai University, Tehran, Iran

³Department of Clinical Psychology, Kharazmi University, Tehran, Iran

Abstract

Background: Chronic diseases such as multiple sclerosis (MS) can lead to hopelessness, negative emotions and thoughts, and reduced quality of life. The present study aimed to compare the effectiveness of spirituality therapy and mindfulness-based training in increasing the resilience of MS patients.

Methods: The present study was a quasi-experimental study adopting a pre-test, post-test, and follow-up design with a control group. The statistical population of this study included all patients referring to the MS Association of Tehran in 2018. Using a convenience sampling method, 60 patients were selected and randomly divided into three groups. Data were collected using the Connor-Davidson Resilience Scale (CD-RISC) and analyzed adopting repeated measure analysis of variance. Data were analyzed by SPSS 22 software.

Results: The results of repeated measure analysis of variance showed that spirituality and mindfulness-based interventions exerted effect on resilience ($P \geq 0.008$). Comparing the results also revealed that spirituality therapy had more powerful effect on resilience ($P \geq 0.001$).

Conclusion: It was concluded that spirituality therapy and mindfulness-based training were both effective in promoting resilience in MS patients; however, spirituality therapy was found to be more effective in increasing the MS patients' resilience.

Keywords: Mindfulness, Multiple sclerosis, Spirituality, Resilience

*Correspondence to

Hasan Ahadi,

Email: hassanahadi275@

yahoo.com



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Background

Multiple sclerosis (MS) is one of the most common diseases afflicting the autoimmune system that affects the central nervous system (1). MS is characterized by three characteristics of inflammation, myelin degradation, and scar (2). The cause of the disease is unknown, but activation of immune mechanisms against myelin antigen seems to be involved in developing this disease (3). In people with MS, like people afflicted with other chronic diseases, psychological reactions such as regression, denial, anxiety, depression, and anger are common. In initial stages, all these reactions are normal and even help the afflicted person to better adapt to the nature of the new situation. If these reactions continue and completely affect all aspects of the patient's life, however, follow-up and special attention will be urgently required (4).

Resilience is associated with different personality traits such as humor, happiness, wisdom, empathy, intellectual adequacy, and purposefulness in life. It is not a simple matter but a complex structure of related processes, whose aspects should be examined separately. A review of available resources and studies conducted in the Iranian

patient community suggests that modern therapeutic intervention has not been performed on chronic disease resilience yet. In recent years, however, interventions have been implemented to reduce depression and anxiety and improve memory of other psychological variables of MS patients (5). Various psychotherapeutic approaches have been developed to improve MS patients, one of which is Spirituality therapy. It seems the time has come to combine spiritual solutions with psychotherapy theories and methods. Throughout history, various humanistic and psychology schools have attempted to find solutions and paid attention to humans and their needs. Spiritual research in psychology is a serious and fundamental subject, which has attracted the research attention of the practitioners from different countries (6). Spirituality includes self-perceptions as well as a combination of personality factors and fundamental beliefs about one's being and the meaning of life. These beliefs are associated with various aspects of life, including social, physical, and psychological aspects (7). Nowadays, many physicians consider faith and spirituality as an important resource positively contributing to the physical health and well-

being of individuals and, therefore, often take the patients' spiritual issues into account when initiating the treatment process (8).

In addition to spiritual therapy, another method that may prove useful for treating patients is mindfulness-based therapy (9). Mindfulness means paying attention to the present time in a specific, purposeful, and non-judgmental manner. Over the past 30 years, many practitioners have developed an interest in the therapeutic use of mindfulness (10). Mindfulness helps the person become aware of the daily activities and automatic functioning of the mind. Through moment-to-moment awareness of thoughts, feelings, and physical states, s/he is able to control them, and focus about the future (11). Rumination is an attempt to resolve problematic emotions through the problem-analysis and problem-solving processes. In the mindfulness method, the greatest effort is made to prevent the individual from applying mental rumination for solving the problem because this cycle produces many permanent and unpleasant effects (12). Repetitive and uncontrollable thought patterns in the form of rumination can, in the long run, cause symptoms of anxiety and depression (13). In the last two decades, a great number of mindfulness-based interventions and therapies have emerged, including mindfulness-based cognitive therapy. In this method, clients are encouraged to process the experience as it is formed without judgment, and change their relationship with challenging thoughts and feelings and accept them (14).

This approach has been examined and applied in special clinical populations. The obtained results have confirmed the great effect of mindfulness-based cognitive therapy in treating anxiety and mood disorders, depression with suicidal ideation, chronic pains, and cancerous (15). A review of studies conducted in Iran has also shown the effectiveness of mindfulness-based cognitive therapy in increasing the mental well-being and hope of MS patients (16), as well as reducing perceived pain intensity of women with chronic pain (17).

Objectives

The present study aimed to compare the effectiveness of spirituality therapy and mindfulness-based training in increasing the MS patients' resilience.

Materials and Methods

In the present study, a quasi-experimental method with a pre-test, post-test as well as a follow-up design with a control group were adopted. The statistical population of the study included all MS patients who were members of the Tehran Multiple Sclerosis Association in 2018. Using a convenience sampling method, 60 patients were selected and randomly assigned to three groups, each of which included 20 patients. Inclusion criteria of the study included having MS, willingness to participate in

the study, not having other physical illness (acute and chronic) according to their health and counseling records, not having acute and chronic psychological illness such as depression due to their health and counseling records, and not receiving psychotropic drugs or psychotherapy at the same time (through consulting with the treating physician). Exclusion criteria also included being absent in more than two sessions, receiving psychotropic drugs during the intervention, having personality and psychotic disorders and unwillingness to continue attending the intervention process.

In order to meet ethical consideration, all subjects were informed of the purpose of the study. Then they were asked not to write their names in the questionnaires; however, codes were assigned to subjects in order to identify them. Finally, the subjects were provided with a contact number, so that they may have had access to the questionnaires' results via phone calls if they were willing to.

Connor-Davidson Resilience Scale (CD-RISC)

Connor & Davidson Questionnaire includes 25 items in likert five point scale which includes 5 subscales of perception of individual competence, trust in individual instincts/negative emotion tolerance, positive acceptance of change and safe relationships, control, and spiritual influences. This questionnaire is scored on a five-point Likert scale ranging from one to five. Connor and Davidson reported the Cronbach's alpha coefficient of the resilience scale at 0.89. Also, the reliability coefficient using the test-retest method in a 4-week interval was reported at 0.87. Khoshouei (18) used Cronbach's alpha method to determine the reliability of the Connor and Davidson resilience scale and reported a reliability coefficient of 0.89. In this study, the reliability of the tool using Cronbach's alpha was obtained at 0.85.

Summary of the contents of spiritual therapy based on Richards and Bergin (19) and mindfulness-based training based on Goldin & Gross (20) are presented in Table 1 and Table 2, respectively.

Our study data were analyzed by repeated measure analysis of variance. Before performing the analysis, the assumptions were tested using Kolmogorov-Smirnov, Levene's test, and regression slope tests. Data were analyzed by SPSS 22 software. The significance level of the tests in this study was considered to be 0.05.

Results

The mean and standard deviation of age in spiritual group therapy was 46.4 (10.1), in mindfulness-based training group was 45.1 (9.2), and in control group was 45.3 (9.65). Demographic characteristics in the three groups are presented in Table 3.

Repeated measure analysis of variance was used to evaluate the significance of the differences among the

scores of resilience in the three groups (Table 4). Before performing repeated measure analysis of variance, the

results of Box's M and Levene's tests were examined in order to comply with the pre-assumptions. Since the

Table 1. Summary of the Contents of Spiritual Therapy

Sessions	Content
Session 1	Introducing the participants to each other. Stating the definitions and distributing the questionnaires
Session 2	Self-awareness and communication with oneself and listening to the inner voice, examining needs and goals, practicing
Session 3	Awareness-raising, meditation, calculation, and follow-up. Examining the past relations and accepting its role in the current behaviors of the clients and their influence on moods
Session 4	Giving meaning to life events according to values, goals, and beliefs. Talking about guilt, repentance, forgiveness
Session 5	Emphasis on accepting personal responsibility. Training the ways to cope with social tensions
Session 6	Doing spiritual work in groups; holding collective prayers; focusing on resources; thanksgiving; practicing
Session 7	Creating enlightenment and insight, self-confidence, self-reliance, and self-esteem
Session 8	Learning ways to support others. Physical, psychological, social self-care
Session 9	Praying and a sense of presence. How to pray and for whom to pray, the content of the pray
Session 10	Emphasis on reality, the need for meaning and growth in life to maximize motivation
Session 11	Spiritual self-control
Session 12	Talking about death, the cause of fear of death, resurrection and life after death, thanksgiving, faith, trust in God
Session 13	Practicing to live happily and enjoying life at the moment, avoiding pursuing happiness
Session 14	Reviewing and summarizing the contents of the previous sessions with an emphasis on thanksgiving and tolerating the problems with trust and hope in God

Table 2. Summary of Contents of Mindfulness

Sessions	Content
Session 1	Eating raisins with the presence of mind, practicing physical examination, focusing on daily activities combined with the presence of mind.
Session 2	Emotion and identification of positive and negative emotions, training to record desirable events, focusing on daily activities with the presence of mind.
Session 3	Seeing and hearing meditation, sitting meditation (presence of mind from breathing and body), walking with the presence of mind, practicing three-minute breathing space, recording undesirable events.
Session 4	Seeing and hearing meditation, sitting meditation (awareness of breathing, body, sounds, thoughts), defining the principles and rules governing emotion, regular three-minute breathing space, three-minute confrontational breathing space.
Session 5	Sitting meditation (awareness of breathing, body, sounds, and thoughts) and how to react to thoughts, feelings, and body sensations, three-minute regular and confrontational breathing space, reading the story of the king and his three sons and introducing the concept of acceptance.
Session 6	Sitting meditation (awareness of breathing, body, sounds, and thoughts) Communicating with your thoughts and feelings and spreading them and accepting unpleasant thoughts and emotions without judgment, discussing that "thoughts are not real," three-minute regular and confrontational breathing space.
Session 7	Sitting meditation (awareness of breathing, body, sounds, and thoughts) Understanding the relationship between activity and mood, preparing a list of pleasant activities that give a sense of control for a person. Three-minute regular and confrontational breathing space.
Session 8	Examining the body, reviewing the entire course, ways to maintain the achievements, selecting a program for practicing at home that can be continued until next month, discussing the positive reasons and possible barriers of practicing after the course, and completion of the survey form by the participants.

Table 3. Frequency Distribution and Comparison of Demographic Characteristics in Three Groups

Demographic Variables	Spiritual Therapy	Mindfulness-Based Training	Control	P Value	
Gender	Female	11 (55)	8 (40)	10(50)	0.27
	Male	9 (45)	12 (60)	10 (50)	
Marital Status	Single (divorced or widow)	2 (10)	3 (15)	1 (5)	0.93
	Married	18 (90)	17 (85)	19 (95)	
Age	30 to 40 years	6 (30)	6 (30)	5 (25)	0.31
	41 to 50 years	10 (50)	9 (45)	10 (50)	
	51-60 years	4 (20)	5 (25)	5 (25)	
Education	Lower than high school	11 (55)	12 (60)	9 (45)	0.11
	Associate degree	5 (25)	7 (35)	6 (30)	
	Bachelor's degree and higher	4 (20)	1 (5)	5 (25)	

Box's *M* test was not significant for any of the research variables (Box's $M=10.10$; $P>0.05$), the condition of homogeneity of variance-covariance matrices was met. Non-significance of any of the Levene's test variables showed that the condition of equality of intergroup variances was observed, and the amount of variance of the dependent variable error was equal in all groups. According to the results of Wilks' lambda test with a value of 0.13 and $F=46.51$, a significant difference was detected among the three groups of spiritual therapy, mindfulness-based training, and the control group regarding resilience ($P<0.001$). Repeated measure analysis of variance is presented in Table 5.

As shown in Table 5, resilience ($F=7.74$) was significant at the level of 0.001. Bonferroni post hoc test was also used for paired comparison of groups.

Table 6 shows that the mean of resilience in spiritual therapy group at the end of the post-test was higher than those in the mindfulness-based training and the control groups ($P<0.01$). In other words, the spiritual therapy was the most effective method, and mindfulness-based training came second in affecting resilience ($P<0.01$).

Discussion

This study aimed to compare the effects of spiritual therapy and mindfulness training on MS patients' resilience. The results showed that spiritual therapy was effective in promoting the resilience of MS patients. Our study results regarding the effect of spirituality therapy on resilience were consistent with the results from the studies by Thuné-Boyle et al (10), Fischer et al (11), Revheim & Greenberg (12). By way of explanation, it is common knowledge that resilience is a kind of process, ability, or outcome of successful adaptation to a threatening situation. In other words, resilience is a factor that helps people cope with

difficult and stressful life situations, reduce depression, increase the ability to adapt to pain and the quality of life. Many factors are responsible for resilience in the face of problems, including attachment style, individual factors (gender and self-esteem), family factors (family structure and family support), and social factors. MS patients with low levels of resilience may suffer problems such as family, social, and cognitive problems. Victor Frankel emphasized that a person's intrinsic motivations created a comprehensive meaning and purpose in his or her life, so that their life directed him or her towards a basic purpose and individual dignity (9). Since the main goal of spiritual therapy is to combine the biological, psychological, and spiritual aspects of the client's existential truth in the form of a complete understanding of human nature and human needs (10), it seems that the main characteristics of human spiritual and religious experiences are reflected in his or her desire for meta-material reality. This desire manifested itself in the early sessions of meaning therapy in this study. The effect of spiritual therapy on patients' resilience may arise from the feeling that something (presence) (other than self) can be received and perceived, as well as from the tendency to personalize the presence in the form of divinity and relationship that is established through praying.

The results also showed that mindfulness training was effective in increasing the resilience of MS patients. Our study results regarding the effect of mindfulness on resilience were in agreement with the results from studies by Pouyanfar et al (21) and Brintz et al (22). By way of explanation, it is argued that people with chronic diseases, especially MS, gradually experience a reduction in resilience. Resilience is associated with different personality traits such as humor, happiness, wisdom, empathy, intellectual adequacy, and purposefulness in life.

Table 4. Mean and Standard Deviation of Study Variables in the Experimental and Control Groups

Variable	Group	Pre-test		Post-test		Follow-up	
		Mean	SD	Mean	SD	Mean	SD
Resilience	Spiritual therapy	58.75	6.49	72.15	6.19	71.15	6.12
	Mindfulness-based training	60.60	4.30	66.05	3.63	65.35	3.55
	Control	59.95	4.51	60.50	4.62	60.45	4.68

Table 5. Repeated Measure Analysis of Variance to Compare Pre-test and Post-test in Experimental and Control Groups

Variables	Source of Effect	SS	df	MS	F	P	Eta Square
Resilience	Time	213.75	1.38	154.38	203.40	0.001	0.84
	Time*group	141.65	1.38	102.30	134.79	0.001	0.78
	Group	410.70	2	410.70	7.74	0.008	0.17

SS, Sum of squares; MS, Mean of squares

Table 6. Results of Bonferroni Post Hoc Test to Compare Research Variables

Variable	Group	Group	Mean Difference	P Value
Resilience	Spiritual therapy	Mindfulness-based training	6.10	0.001
		Control	11.65	0.001
	Mindfulness-based training	Control	5.55	0.001

It is not a simple issue but a complex structure of related issues that must be addressed separately. The negative consequences of adverse events influence the mental health of the harmed people. Hardiness and self-resilience are sources within the individual that can moderate levels of stress and disability in adverse conditions and minimize the negative effects of stress. Resilience is not just stability in harmful or threatening conditions, nor is it a passive state in the face of dangerous conditions; but it is an active and constructive involvement in its context (21). Resilience, it can be argued, is the ability of a person to establish a bio-psychological balance when faced with hazardous situations. Decreased resilience in MS people makes them vulnerable to the life challenges. Furthermore, mindfulness is an important underlying factor in this regard since it proves an effective and powerful strategy to save the person from the pressures of the world or the mental pressures (22). In this intervention, an attempt was made to ensure that patients had the correct presence of mind. It means that one should turn his or her attention from the preoccupations with the past and future to the present. When a person is at present, s/he perceives reality with all its internal and external aspects and, then, s/he realizes that the mind is involved in rumination because of the judgments, interpretations, and interpretations s/he makes. When a person realizes that the mind is constantly interpreting, s/he may pay more attention to his or her thoughts and examine them without judging and find out the reason for their existence.

This study faced some limitations that had to be taken into account before generalizing its results. One of the limitations was the fact that the study variables were measured using self-report tests only. Therefore, it was recommended that other methods, such as interviewing, be adopted in future studies. Moreover, the study only investigated MS patients. Therefore, it was also suggested that the study be repeated incorporating various examples.

Conclusion

It was concluded that spirituality therapy and mindfulness-based training were both effective in promoting resilience among MS patients; however, spirituality therapy was found to exert stronger effect on the MS patients' resilience.

Authors' Contribution

All authors participated in the study concept and design, acquisition of data, data analysis, and critical revision of the manuscript for important intellectual content.

Competing Interests

None.

Ethical Approval

This study was approved by The ethical committee of Hormozgan

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