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Original Article

The Effectiveness of Group Hope Therapy Training on the Quality of Life and Meaning of Life in Patients with Multiple Sclerosis and Their Family Caregivers

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Abstract

Objective: Multiple sclerosis is a chronic, progressive neurological disease that, due to its special nature, has various physical and mental influences on the patients and their family's lives, decreasing the quality of life and threatening the meaning of life. The purpose of the present study was to evaluate the effectiveness of the group hope therapy training on the quality and the meaning of life in patients with multiple sclerosis and their family caregivers.
Method: This quasi-experimental study was performed using pretest-posttest and control group. Thirty patients with multiple sclerosis along with 30 family caregivers who got low to medium scores on the Meaning in Life questionnaire by Steger (MLQ), Multiple Sclerosis Impact Scale (MSIS-29), and the Iranian Quality of Life questionnaire (IRQOL) for the caregivers were selected purposively. Then, the patients were randomly divided into two groups of 15 individuals in experimental and 15 individuals in control groups. The caregivers were grouped in the same manner. The protocol of group hope therapy training was carried out through eight two-hour sessions in two weeks separately on two experimental groups (the patients and the caregivers), and finally the posttest was given to four experimental and control groups.
Results: The results of the data showed that the meaning of life in both the patient and the caregiver experimental groups increased significantly ($P < 0.001$), but there was no significant change in the patient and the caregiver control groups.
Conclusion: Group hope therapy training is an effective intervention for improving the meaning of life and the quality of life in patients with multiple sclerosis. Also, any psychological intervention that aims to improve the quality of life in patients in an advanced stage of the disease requires attention to both the physical and the mental issues at the same time. Although group hope therapy training has improved the meaning of life in such patients, it did not have a significant impact on the quality of life. Therefore, paying attention to the stages of multiple sclerosis and the physical condition of the patients during the therapeutic intervention and adopting necessary complementary interventions seems to be essential.

Key words: *Family Caregiver; Hope; Multiple Sclerosis; Psychological Rehabilitation; Quality of Life*

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Multiple sclerosis is a chronic neurological disease characterized by autoimmune inflammation, axonal degeneration, and the progressive demyelination of the central nervous system (1). The cause of MS is unknown and this disease does not have a definite cure. The causes for its onset consist of a complex series of genetic and environmental factors (1, 2). The course of the disease is also unpredictable and includes relapse and periods of remission, and at the end, many patients develop a progressive course, the characteristic of which is the gradual increase in disability (3). Symptoms of this disease vary due to the extensive nature of the neurological injuries and include fatigue and pain, vision impairment, spasm, tremor and stiffness, bladder and intestine difficulties, cognitive impairment and so on (1). In general, MS leads to a series of physical, emotional, cognitive and psychological symptoms that immensely decrease the quality of life (4, 5).

Several studies on the quality of life in such patients show that they have a lower quality of life compared with the healthy members of the society (6, 7). Also, multiple sclerosis influences other family members as well (8). This is to the extent that the onset of MS leads to the preliminary or complete deterioration of physical, social, and cognitive functions of the patient and has a destructive influence on the quality of life of the patient, his or her family, and acquaintances (9).

A high quality of life is the most important outcome of medical care, and paying attention to this aspect is among the most vital changes in health care services in recent decades (10). Rehabilitation in physical, psychological, and social aspects is essential for a comprehensive management of the disease and recovery in holistic terms. Accordingly, recent studies about MS show that the treatment of MS must be done in a holistic manner through teamwork, and improving the quality of life for patients depends on the interdisciplinary collaboration of experts on medical, psychological, and social sciences (11). Also, evaluation and treatment must focus both on the patient and the family caregivers. The World Health Organization (WHO) suggests that care for the patients and their caregivers be considered as a "unit of care" (12).

On the other hand, any chronic and life-threatening disease can destroy the meaning of life and the purposiveness of the patient's life (13) or compel the individual to look for a new meaning of life to be able to adapt to new conditions (14). Some psychologists, such as Allport, Frankl, and Maslow, consider the meaning of life as the most important factor for positive psychological function. Hence, several research findings have shown that the presence of meaning in life is fundamental to psychoemotional well-being (15). In fact, having a meaning for life, along with hope, can increase happiness, satisfaction, and positive affects, and can decrease mental health problems (16).

In contemporary psychology, positive psychology, and health psychology shift the immense attention away from psychological disorders and focus more on elements such as happiness, optimism, meaning of life, social support, hope, and adopting methods based on such factors to avoid and cure physical complications (17, 18). One of the constructs that has received wide attention is hope. Hope therapy interventions serve as an effective method of curing chronic diseases. Through increasing hope, one can witness an increase in the level of self-care, quality of life, and general health in patients (17). In addition, literature reviews on hope show that high levels of hope have a positive correlation with the quality of life and its various aspects such as physical and psychological health, high self-worth, and positive thinking (19). So far, hope therapy has been effective in improving the quality of life in patients with chronic diseases, such as cancer (20), in men diagnosed with HIV (21) and patients with hypertension (22).

Taking into account the necessity of tending to patients with MS and their family caregivers as a unit of care, lack of psychological intervention studies for these patients and their families, especially in Iran, and the importance of the quality and the meaning of life as factors contributing to resiliency in such patients and their families, the present study hypothesized that the components of group hope therapy training can positively affect the quality and the meaning of life in patients with MS and their family caregivers.

Materials and Methods

Methodology: This was a quasi-experimental pretest-posttest study with control groups. The statistical population included all the patients with MS hospitalized in Rofaydeh Rehabilitation hospital in Tehran, along with their family caregivers, in 2019.

After receiving confirmation for the research proposal from the research committee of the University of Social Welfare and Rehabilitation Sciences and obtaining the code of ethics and a permission from Rofaydeh Rehabilitation hospital, the study was launched with patients with MS and their family caregivers. The volunteering participants submitted their informed consent for participating in the research and were then given two questionnaires on the quality of life (one for the patient and one for the caregiver) and the meaning of life, and another demographic questionnaire. After collecting the questionnaires, 30 patients and 30 caregivers with low to medium scores were selectively picked out. Then, the patients were randomly divided into two groups consisting of 15 members, an experimental group and a control group. The caregivers were divided into two groups in a similar fashion. As scientific studies show, the best number of participants for a group session is 6 to 14 and 8 to 15 (23).

After these preliminary stages, the protocol of group hope therapy training was performed for the two experimental groups (the patients and the caregivers) through eight 2-hour sessions in 4 weeks by a psychologist from the research team specializing in hope therapy. Finally, the posttest was given to the 4 experimental and control groups. While the training sessions were held, the control group received no training and were just given the routine treatments in the hospital.

Research Tools

1. A demographic questionnaire was used to collect demographic data, such as age, gender, marital status, employment, education, and the duration of illness .
2. Iranian Quality of Life Questionnaire (IRQOL): This questionnaire was designed by the World Health Organization in 1994 for assessing the quality of life. This questionnaire, an intercultural scale, has two forms. The long-form consists of 100 questions, while the short form has 26 questions (the present research used the short form). The short form assesses 4 aspects of life, including physical health, psychological health, social relationships, and environment (24). In Iran, the reliability and validity of this form have been confirmed by Nasiri et al (2006). The reliability coefficient and the internal consistency (Cronbach's alpha) of this scale for a sample consisting of 3.2 students from Shiraz university has been reported 0.87 and 0.84, respectively, while the reliability coefficient is 0.67 (25). This questionnaire was used to evaluate the quality of life in family caregivers of patients with MS.
3. Multiple Sclerosis Impact Scale (MSIS-29) consists of 29 questions. The first 20 questions assess the physical effects and the last 9 questions assess the psychological effects of MS on the patient. Each question consists of 5 choices (with scores from 1 to 5). The sum of all the scores a patient obtains from the two groups of questions, ranging from 0 to 100, results in two scales for assessing the physical and mental conditions of the patient. Higher scores indicate lower health for the patient. The maximum score in the psychological aspect is 45, while the lowest is 9. In the Persian version of this questionnaire, the alpha coefficient as well as the retest coefficient have been reported to be larger than 70% (11).
4. The Meaning in Life Questionnaire (MLQ): This questionnaire was developed by Steger et al (2008) and is a 10-item scale. Five items in this scale assess "Presence of Meaning in Life" and the other 5 assess "the Search for Meaning in Life." The questions of this scale are scored on the 7-point Likert scale (from 1 = completely wrong to 7 = completely right). The scores on both scales range from 5 to 35, with the higher score indicating a higher level of the presence or the search for meaning in life. The 2-factor structure of this tool has been validated in several studies and the results show that this structure is similar in various cultures (26). In the study done by Nasiri & Jokar (2008), the reliability was assessed through the retest method with an interval of 15 days. The results were 0.79 for the presence of meaning subscale and 0.71 for the search for meaning subscale ($P < 0.001$). Also, the internal consistency coefficient for the two subscales of the presence of meaning and the search for meaning was 0.83 and 0.78, respectively .

The Protocol for Group Hope Therapy Training: The group training adopted in this research project is based on the protocol designed to reinforce hopeful thinking and increase the activities for pursuing goals in the hope theory developed by Cheavens et al (27). The present protocol was approved and adapted by the faculty members of the Counseling Department at the University of Social Welfare and Rehabilitation Sciences. It was done through eight 2-hour sessions for patients with MS and their family caregivers, with necessary adaptations and modifications. The contents of this protocol, as divided by each session, is presented in Table 1. Furthermore, Figure 1 shows the flowchart of the study (1).

Table 1. Protocol of Group Hope Therapy Training

Sessions	Objectives of each session	Tasks and Homework's
First session	• Introduction and discussing the rules and regulations • Defining the goals of the training sessions based on the theory of hope.	• Reflecting on the personal goals in life and making a list of these goals in order of personal preference.
Second session	• Demonstrating the relationship between thinking and feeling. • Defining the goals and obstacles. • Finding ways to achieve goals. • Strategies to keep our motivations.	• Making a list of failures and the reasons for them. • Determining several pathways to achieve a personal goal.
Third session	• Discussing the ways of increasing agency thinking through defining goals. • Explaining the progress continuum. • Clarifying the necessity of re-evaluating goals.	• Reappriasal the goals of life. • Setting the goals we would like to pursue.
Fourth session	• Introducing the practical approaches to goal regulation. • How to setting goals in concrete terms with endpoints.	• Pursuing one meaningful, measurable, and concrete goal. • Making a list of reasons for failure or

	• Breaking the goal into sub-goals.	success in pursuing the goal.
Fifth session	• Explaining self-talk. • Investigating the causes of negative self-talk. • Introducing the approaches to changing negative self-talk.	• Keeping records of self-talking during the pursuit of a goal. • Dealing with negative self-talk during the pursuing goals and confronting with failures.
Sixth session	• Discussing the pathways for attaining goals. • Introducing approaching for increasing pathways thinking. • Introducing an alternative way of increasing the level of mental determination (re-evaluation of goals).	• Creating a diagram of goal. • Listing the abilities needed for objective goals. • Imagining about achieving goals and reinforcing agent thinking in specific hours.
Seventh session	• Discussing approaches to increasing the level of physical strength (improving the diet and regular exercise appropriate to one's physical conditions under the supervision of the physician). • Discussing the obstacles against attaining goals and introducing ways of overcoming obstacles.	• Re-evaluating eating and exercise habits. • Working on obstacles and reporting the result.
Eighth session	• Giving the participants the opportunity to talk about their experience of participating in the group, answer the participants' questions, and concluding the sessions.	• Sharing personal experiences about the group

Note: each session was accompanied by task, homework assignment and a review of previous sessions.

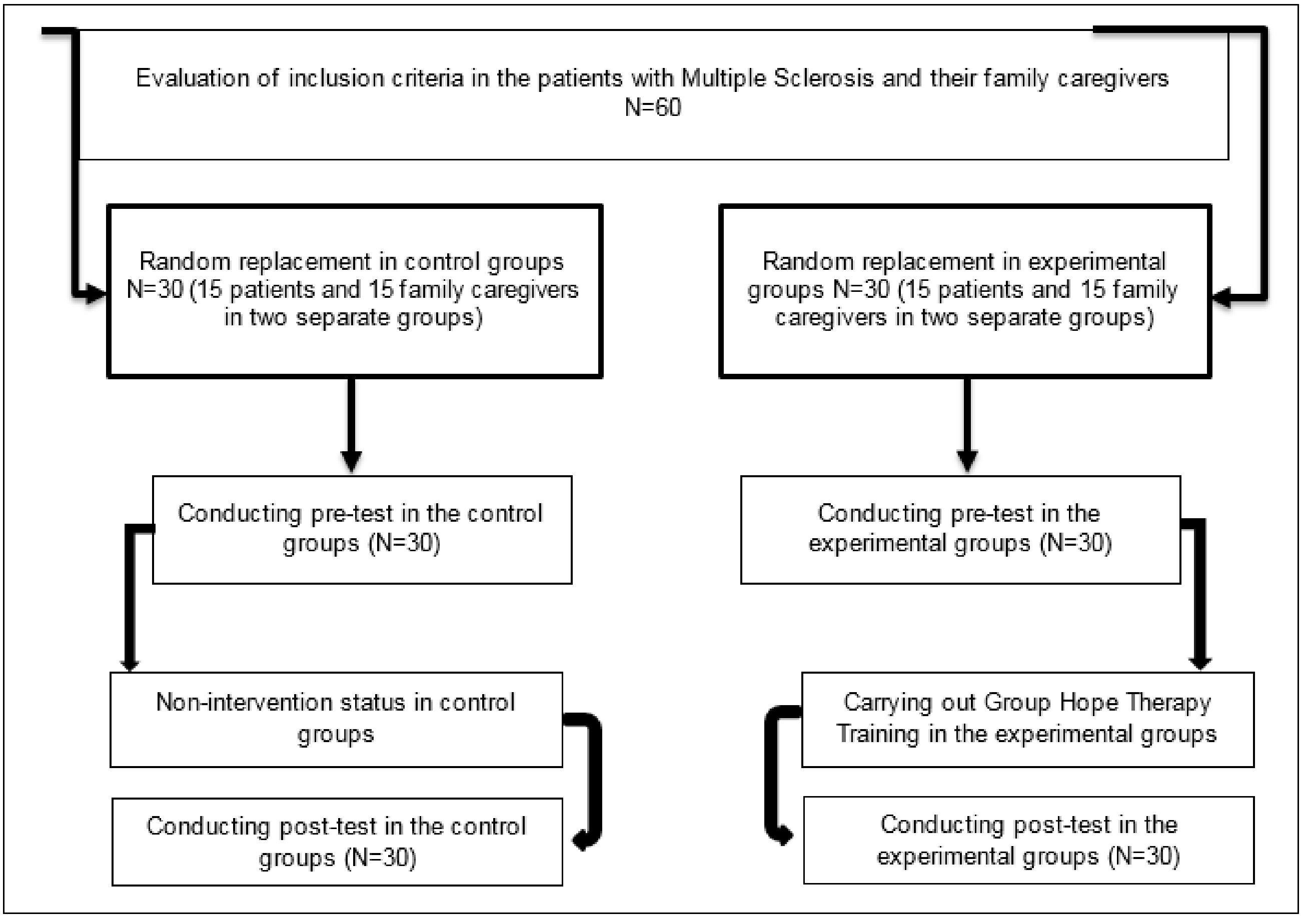

Figure 1. Flowchart of the Study

Data Analysis

Descriptive statistics were analyzed by using mean, frequency, and standard deviation. Afterwards, univariate analysis of covariance (ANCOVA) was used to investigate the effectiveness of group hope therapy training on quality of life among patients with MS and their caregivers. Therefore, we used Levene's test to evaluate the homogeneity of the variance in the variables and we also utilized the Kolmogorov–Smirnov test to evaluate the normality of data distribution.

SPONSER

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ETHICAL CONSIDERATIONS

Following the principles of research ethics, the ethics committee of the University of Social Welfare and Rehabilitation Sciences has verified this study under the ethics code of IR.USWE.REC.1398.047.

The objectives of the present study have been explained to all the participants, and they submitted an informed consent for participating in the study. After the conclusion of this study, the researchers held three sessions of group hope therapy training for the two control groups.

Results

Table 2 shows the descriptive analysis of demographic information of the four groups, N = 60 (30 patients and 30 caregivers). Also, Table 3 includes the mean and standard deviation for quality of life and meaning of life variables in the four experimental and control groups. According to Table 2, with respect to the demographic characteristics variables, there was not any statistically significant difference between the groups, except for more women in the caregiver-control group.

As shown in Table 3, the average scores for the quality of life and the meaning of life (the presence and the search for meaning) in the posttest, compared to the pretest, was improved for the patient-experimental group compared with the patient-control group. Also, in the caregiver-experimental group, compared with the caregiver-control group, the average of these variables in the posttest was increased compared to the pretest.

To study the effectiveness of group hope therapy training on the quality of life for patients with MS and their caregivers, the 1-variable covariance analysis (ANCOVA) was used. Studying the hypotheses of this test, and considering the insignificance of the mutual effectiveness of the group and the pretest in all the four groups indicate the evenness of the slope of the regression line, and the insignificance of Levene's test indicates the homogeneity of the variance of variables, and the insignificance of the Kolmogorov–Smirnov test indicates the normality of data distribution. The findings of ANCOVA for the quality of life variable can be found in table 4.

The calculated F in the patients group is 3.59 and its significance level is larger than 0.05. Hence, it can be concluded that group hope therapy training did not increase the quality of life in patients with MS. The effectiveness level (0.114) indicated that the intervention had a little effect on the quality of life of the patients. In the family caregivers group, the calculated F was 55.08, with a significance level lower than 0.05 therefore, it can be concluded that the group hope therapy training can increase the quality of life of the family caregivers. The effectiveness level (0.809) indicates that the efficacy of intervention on the quality of life of the patients has been high .

Table 5 shows the results of the multivariable analysis of covariance (MANCOVA) for the effectiveness of the group hope therapy training on the meaning of life for the patients with MS and their family caregivers. Analysis of the hypotheses of this test yields the following results. The insignificance of the Box’s M in all the four groups of the patients and the family caregivers shows the equality of the matrix of the covariance. The insignificance of Kolmogorov–Smirnov test indicates the normality of the score distribution. The insignificance of Levene’s test shows the homogeneity of variance .

The significance of the Wilks Coefficient ($P > 0.001$; $F = 69.29$) for the patients group and the Wilkes coefficient ($P > 0.001$; $F = 106.46$) for the family caregivers indicates the difference between groups in the posttest. Table 5 shows the results of MANCOVA for the meaning of life variable.

The results of the within-subject effect test for comparing components of meaning in life in the patients and the family caregivers groups is significant ($P>0.001$). Therefore, it can be concluded that group hope therapy training increases the meaning in life for patients with MS and their family caregivers as well as the presence of meaning and search for meaning components for them. Also, the effect size for each of the components of meaning in life, separately, indicates that the effects of the intervention on the meaning in life components is high in the control groups (The effect sizes of search for meaning and presence of meaning are 0.759 and 0.847, respectively, for patients, and 0.778 and 0.894, respectively, for the family caregivers).

Table 2. Demographic Characteristics of Patients and Care Givers in Both Control and Experimental Groups

Variable	Patient-Control	
Age	Standard deviation	Standard deviation
	9.55 (mean: 45.33)	10.35 (mean: 44.20)
Sex	Frequency and percent	Frequency and percent
Female	8 (53.3%)	8 (53.3%)
Male	7 (46.7%)	7 (46.7%)
Marital status		
Single	2 (13.3%)	1 (6.7%)
Married	11 (73.3%)	11 (73.3%)
Divorced	2 (13.3%)	3 (20%)
Employment status		
Housekeeper	7 (46.7%)	5 (33.3%)
Jobless	2 (13.3%)	1 (6.7%)
Employed	3 (%20%)	7 (46.7%)
Self-employment	3 (20%)	2 (13.3%)
Level of education		
Primary	4 (26.7%)	4 (26.7%)
High school	3 (20%)	
Diploma	2 (13.3%)	5 (33.3%)
Bachelor's or higher	6 (40%)	6 (40%)
Variable	Caregiver-Experimental	Caregiver-Control
Age	Standard deviation	Standard deviation
	12.23 (mean: 44)	13.33 (mean: 47.80)
Sex	Frequency	Frequency
Female	7 (46.7%)	11 (73.3%)
Male	8 (53.3%)	4 (26.7%)
Marital status		
Single	3 (20%)	2 (13.3%)
Married	12 (80%)	13 (86.7%)
Divorced		
Employment status		
Housekeeper	3 (20%)	8 (53.3%)
Jobless	1 (6.7%)	1 (6.7%)
Employee	5 (33.3%)	4 (26.7%)
Self-employment	6 (40%)	2 (13.33%)
Level of education		
Primary	3 (20%)	1 (6.6%)
High school	4 (26.7%)	4 (26.7%)
Diploma	3 (20%)	9 (60%)
Bachelor's or higher	5 (33.33%)	1 (6.7%)

Table 3. The Mean and the Standard Deviation for the Quality of Life and the Meaning of Life Variables in the Two Experimental and Control Groups

Group	Level	Variable	Average	Standard Deviation	Maximum	Minimum
Patient-experimental	Pretest	Quality of life	95.86	23.88	171	70
		Presence of meaning	14.66	4.59	22	7
		Search for meaning	17.33	8.91	35	8
	Posttest	Quality of life	97.68	20.88	170	68
		Presence of meaning	20.46	1.99	23	16
		Search for meaning	32	3.16	35	25
Patient-control	Pretest	Quality of life	96.46	22.99	127	65
		Presence of meaning	18.53	1.99	23	15
		Search for meaning	15.53	3.65	21	6
	Posttest	Quality of life	90.60	24.25	127	65
		Presence of meaning	12.80	2.04	16	10
		Search for meaning	11.53	3.70	20	5
Caregiver-experimental	Pretest	Quality of life	59.40	3.88	74	63
		Presence of meaning	14.73	4.77	24	8
		Search for meaning	16.06	8.90	35	5
	Posttest	Quality of life	70.33	4.25	76	63
		Presence of meaning	20.73	2.18	24	17
		Search for meaning	31.06	3.23	35	25
Caregiver-control	Pretest	Quality of life	57.40	5.62	67	47
		Presence of meaning	13.70	3.04	18	9
		Search for meaning	13.33	2.70	21	7
	Posttest	Quality of life	56.13	4.62	65	44
		Presence of meaning	12.80	2.04	16	10
		Search for meaning	11.53	3.70	20	5

Table 4. Findings of Analysis of Variance (ANOVA) for the Quality of Life Variable

Group	The source of changes	SS	DF	MS	F	P	Eta
Patients	Group	1856.53	1	1856.53	3.59	0.068	0.114
	Error	14476.26	28	517.01			
	Sum	260414	30				
caregivers	Group	143.14	1	143.14	55.08	0.001	0.809
	Error	33.78	13	2.59			
	Sum	113538	15				

Table 5. The Within-Subject Effect Test for Comparing Components of Meaning in Life in the Control and Experimental Groups at Posttest

Group	Variable	Source	SS	DF	MS	F	P	Eta
Patients	Presence of meaning	between groups	271.31	1	271.31	81.85	0.001	0.759
		within group	86.18	26	3.31			
	Search for meaning	between groups	1274.52	1	1274.52	143.52	0.001	0.847
		within group	230.88	26	8.88			
Caregivers	Presence of meaning	between groups	412.81	1	412.81	91.17	0.001	0.778
		within group	117.72	26	4.52			
	Search for meaning	between groups	2358.81	1	2358.81	218.96	0.001	0.894
		within group	280.08	26	10.77			

Discussion

The present research studies the effects of group hope therapy training on increasing the meaning and the quality of life in patients with MS and their family caregivers. The results show that both the subscales of meaning in life, ie, the presence and the search for meaning, had a significant increase in the two experimental groups (patients and family caregivers), while they did not have any significant change in the 2 control groups. The hypothesis was not completely confirmed with respect to the quality of life. The quality of life for the family caregivers in the experimental group increased significantly, but there was no significant increase for the patients in the experimental group. However, the quality of life for the two control groups did not have any significant changes.

To explain why group hope therapy training increases the presence of and the search for meaning significantly, one may have to analyze the relationship between the two concepts or constructs of hope and meaning. In line with this, Feldman & Snyder (2005) stated that hope is an important component for "the meaning in life." They figuratively called goals the bricks of the building of life. They claimed that hopeful thinking highlights the perception that the individual is able to move toward his/ her goals through certain pathways. Hence, having a strong sense of hope, specially while focusing on significant goals, enables the individual to believe that his/ her goals will be accomplished, which leads to a meaningful life (28). Victor Frankl considers the search for meaning as an innate longing, the lack of which leads to emptiness, lethargy and powerlessness (29). For this reason, it can be argued that the common point between hope and meaning is the sense of capability and motivation; the motivation and the capability for hard work to attain meaningful and valuable goals in life. To put it more simply, the components of hope that lead to the realization of objectives can, at the end, inspire meaning in life .

Disease or any threatening situation in life can either threaten the individual's meaning in life or serve as an opportunity to rebuilt and revitalize it. In this vein, Helene Drexler sees awareness as the first step toward finding meaning, which means to become conscious of the existing conditions and to feel the need for creating meaning through difficulties, which begins with receiving data and orientation (29). The researcher of the present study realized that orientation is what the patient with MS and his/ her family caregivers have lost due to the disease. Taking into account the advanced nature of multiple sclerosis that results in the hospitalization of the patients, and the constant need for a family caregiver, and the temporary loss of one's job and social and family interactions, it is evident that the meaning in life for the patient and the caregiver is threatened. Probably, current values and meaning of life cannot help in such a situation anymore. The individual needs a reevaluation and a reorientation. When teaching the reevaluation of goals, the researcher realized that while the individuals' former goals were no longer important to them, they had not yet set new goals for themselves. In general, they had an overall passivity in setting goals, defining a meaning for life and a determining a vision of the future. They had the opportunity, during the group training sessions, to set new goals in line with values, needs and the existing living conditions, and draw up a schedule accordingly. It was not important for the goals to be long-term or short-term, big or small. What was important was for the goals to be pursued, for the behavior to be targeted, and for the thinking to have more agency rather than passivity resulting from the present conditions. In other words, if the pursue of meaning or goal is logical and planned, and if agency thinking has been reinforced, attaining goals can recreate a meaning in life and increase the sense of meaningfulness in life .

Several studies have highlighted the relationship and the correlation between meaning and hope (30, 31). On this basis, some other studies have set out to investigate the effects of meaning and hope on each other. Cheavens et al conducted a study in which the group hope therapy intervention was effective in increasing the meaning in life for community dwelling adults (27). Ebrahimi et al reported in their study that group hope therapy had increased hope in leukemic patients (32). In general, it can be argued that research has unanimously confirmed the correlation between hope and meaning and their mutual effectiveness.

Findings of the present study show that the quality of life in the family caregivers of the experimental group had a significant increase, while no such increase was recorded for the patients, neither in physical nor mental subscales. Changes in the quality of life for both control groups was insignificant. Several studies have dealt with the effectiveness of group hope therapy training on the quality of life of caregivers: one research has reported an increase in the quality of life of patients with cancer after the group hope therapy intervention (32). A similar result was accomplished using group hope therapy for HIV positive patients (21).

As for the insignificance of the difference in the quality of life for the patients' group, one can cite Abedini (2014), a group hope therapy research on women with MS, which used a similar questionnaire to assess the quality of life, and showed that the quality of life has not had any changes in physical subscale, but has had a significant change in mental terms. However, participants in this study consisted only of day patients (11). To explain this finding, it must be mentioned that the participants in the present study have mostly been hospitalized and had advanced stages of the disease. In other words, they had very limited mobility, physical activity, and freedom to move their bodies. On the other hand, their caregivers did not have any specific complications and the most noticeable issue that had disrupted their lives was the constant care they provided to their patients. Therefore, it must be noted that the group hope therapy interventions have probably not been effective for patients with a high level of disability. In fact, the severity of neurological destruction is related to a lower quality of life (33) and one cannot expect to improve their quality life, even just in psychological aspect, without resort to other therapeutic components. According to Patti (34), MS patients get low scores in terms of healthy physical and psychological qualities of life and the burden of living with MS deteriorates their health, both physically and mentally (35). That is why one cannot study physical and psychological issues separately. It seems that as long as a patient is not physically stable and is completely dependent on others, the quality of life is not high for him or her. Physical stability is the minimum requirement for a high quality of life. Otherwise, an expressed high quality of life must be regarded with suspicion. Moreover, some studies have applied exercises, such as massage (36), aerobic training (37), yoga (38) and hydrotherapy (39), for the patients with MS to improving their quality of life, most of them have reported an increase in the quality of life, except for one that reported a lack of improvement in the physical dimension of quality of life (36). However, it seems that improving the physical dimension of the quality of life in patients with MS requires a great deal of effort and interdisciplinary cooperation. Also, meaning in life is more abstract than the quality of life and is less dependent on physical activity. That is probably why the meaning in life for MS patients has had a significant increase on the two scales of presence of and search for meaning. Finally, no valid studies were found regarding group hope therapy training in patients with MS so that more thorough comparisons can be made.

Limitation

One of the limitations of the present study was the lack of follow-up due to lack of access to most of the patients after the intervention. Moreover, not assessing the role of some important factors, such as the type of MS, duration of diagnosis, comorbid psychiatric disorders, and medications, are among the limitations of the study. Therefore, some considerations should be taken into account when generalizing the findings. It is suggested that further research be conducted using augmented interventions to improve the quality of life in patients with advanced MS.

Conclusion

The findings of the present study show that therapeutic interventions, such as group hope therapy training, can be effective for patients with MS. Hope therapy training can enhance both the meaning and the quality of life in them, an enhance which can eventually influence the patient.

On the one hand, it seems that any psychological intervention that intends to enhance the quality of life for patients with advanced MS requires paying attention to all physical and psychological aspects simultaneously. Although group hope therapy training enhanced the meaning of life in such patients, it did not have an effect on their quality of life. Therefore, it is essential to take into account the stage at which MS patients are in as well as their physical condition while carrying out therapeutic interventions .

Finally, patients and caregivers do not usually react to psychological interventions in a similar manner, just as the quality of life in this study improved in the caregivers while it did not change in patients.

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Conflict of Interest

None.

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