

# The effectiveness of hope therapy on improving marital adaptation in women with Multiple Sclerosis (MS)

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## ABSTRACT

**Background and objective:** Multiple sclerosis is one of the chronic diseases, in which the patient faces with psychological consequences such as disturbance in relationships and failure in achieving the life goals due to emergence of unpredictable symptoms. The objective of this study was to evaluate the effectiveness of group-based hope therapy on improving marital adjustment in MS patients (Multiple Sclerosis). **Methodology:** This research was a quasi-experimental study with a pretest-posttest design with a control group and a follow-up stage. The research population included all women suffering from MS disease in Tehran in 2017-2018. The sample of study consisted of 36 patients (18 in the experimental group and 18 in the control group) who were selected by convenient sampling method from the MS Association of Tehran. Two groups were matched in terms of the research criteria. The experimental group underwent group-based hope therapy for 5 consecutive 90-minute sessions, while the control group did not receive any intervention. One month after the end of the sessions, the experimental group re-answered the same questionnaire. The dyadic adjustment scale (DAS) was used to collect data. Data were analyzed using Spss version 25.0 and covariance analysis method. **Results:** The results revealed a significant difference between the mean of the experimental group and that of the control group in the pre-test, post-test and follow-up stages ( $p=0.01<0.05$ ,  $f=255.163$ ), indicating the effectiveness of group-based hope therapy on marital adjustment in women with MS. **Conclusion:** The results showed that group-based hope therapy improved marital adjustment in women with MS.

**Keywords:** MS, hope therapy, marital adjustment.

## Introduction

Disease is an undeniable truth that has long been considered by humans. As this phenomenon affects the fate of people, various studies are required to reduce the negative effects on the patient and bring him or her back to normal daily life. One of the disabling neurological disorders is multiple sclerosis (MS), which is associated with neural-motor disorders and symptoms such as anxiety, weakness, and loss of power to solve the problem and it causes many physical and mental disorders. MS lesions are the second most common cause of neural disability in the early and middle of adulthood and its manifestations vary

from benign disease to rapidly progressing and disabling disease<sup>[1]</sup>. Many psychological abnormalities are associated with MS including depression, euphoria, bipolar disorder, crying and abnormal laughs, psychotic disorder, attention deficit disorder, and disorder in information processing, executive performance, concentration, learning and memory<sup>[2]</sup>.

Multiple sclerosis is a chronic disease in which the immune system attacks and destroys the myelin, protecting the cells of brain and central nervous system and spinal cord, and causes ulcer tissue (plaque) at the injured site. As a result of the destruction of the myelin of the neural cells, the transmission of neural signals transmitted from the brain and the spinal cord to other parts of the body, and vice versa, is disrupted and special MS symptoms emerge<sup>[3]</sup>. This disease causes sensory impairment, weakness, muscle cramps, visual impairment, cognitive impairment, fatigue, tremor, impairment in urinary and feces excretion, sexual dysfunction, bruising, blurred vision, dystonia and speech impairment in a patient<sup>[4]</sup>. The prevalence of MS varies from 2 to 150 people per 100000 depending on the country or populations<sup>[5]</sup>. Its rate in Iran is 30000 to 40000 people<sup>[6]</sup> and it has higher prevalence in Isfahan

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(About 15-30 people per 100000 people) <sup>[7]</sup>. Its prevalence is also three times more in women than that in men <sup>[8]</sup> and it emerges at the ages of 15 to 45 years <sup>[9]</sup>. One of the problems of these patients is marital maladjustment. Marital adjustment of women can also affect marital and family relationships. Marital adjustment is a situation in which the husband and wife are feeling happiness and satisfaction with each other most of the time and there is dyadic satisfaction with each other, consensus between the husband and wife in leaving the home after the conflict, trust in the couple, expressing affection to each other, mutual interest between the husband and wife, persuading each other to exchange thoughts, happiness and laugh and work together, the dyadic consensus in the financial and economic affairs, recreation and entertainments, religious matters, friends, behavior, conventional philosophy of life, communication with relatives, job decisions and expressing the emotion, the level of agreement or disagreement between husband and wife in expressing the emotions and sexual intercourse <sup>[10]</sup>.

In fact, marital adjustment is a practice through which married people, individually or in interaction with each other, are adjusted to stay married <sup>[11]</sup>. One of the ways that can be involved in marital adjustment in women with MS is hope therapy. According to Snyder theory, hope is composed of three main components of the goal, agency, and pathway. Success in achieving goals, positive emotions and failure in it create negative emotions. Hopeful people have more agencies and pathways to pursue their goals, and when they face with barriers, they can maintain their motivation and use alternative pathways. However, hopeless people easily lose their motivation and experience negative emotions when they face with barriers, leading to depression as they have few agencies and pathways <sup>[12]</sup>. Among the psychological therapies, Snyder hope therapy is the only therapy that considers hope as the main goal of therapy <sup>[13]</sup>. The hope therapy aims to help the clients formulate their goals and build multiple pathways to achieve them, motivate themselves to pursue the goals, and redefine the barriers as challenges to overcome <sup>[14]</sup>. Given what was stated above, MS in women can be considered as an essential factor in causing some significant problems in marital life. It seems that the major problems of this group can be solved with providing hope therapy program and help them reduce marital problems to achieve a higher level of adjustment in life. Therefore, the objective of this study was to evaluate the effectiveness of group-based hope therapy in improving the marital adjustment of women with MS. In this research, the following hypotheses were tested:

1. Group-based hope therapy is effective in improving marital adjustment and its components (dyadic satisfaction, dyadic consensus, dyadic cohesion, and affection expression) in women with MS.
2. The effect of group-based hope therapy in improving marital adjustment in women with MS lasts after one month.

## Methodology

The present study was a quasi-experimental type of study with pretest-posttest design with control group. The research population consisted of all women with MS disease in Tehran during 2015-2016. The research sample consisted of 36 patients (18 in the experimental group and 18 in the control group). They were selected by convenient sampling method from MS association and two groups were matched in terms of age, gender, duration of marriage, level of education, and passing at least one year of MS diagnosis. Then, both groups answered to the marital adjustment questionnaire questions. The experimental group underwent group-based hope therapy for 5 consecutive 90-minute sessions, while the control group did not receive any intervention. After completing the sessions, both groups answered the marital adjustment questionnaire questions. One month after the end of the sessions, the experimental group re-answered to the same questionnaire questions. The dyadic adjustment scale (DAS) was used in order to collect the data. This scale was provided by Spanier <sup>[15]</sup>.

It is a 32-item tool for assessing marital quality from the viewpoint of both husband and wife. The factor analysis shows that this scale measures four dimensions, dyadic satisfaction, dyadic consensus, dyadic cohesion, and affectional expression. The Dyadic Adjustment Scale provides three different scales for ranking. The total score of this scale is between 0 and 151. Higher scores represent a better relationship and high adjustment. This scale has a good concurrent validity and it is correlated with the Locke-Wallace Marital Satisfaction Scale <sup>[16]</sup>. Using criterion validity, Yarmohammadian, Bankdar Hashemi and Asghari (2011) also obtained the validity coefficient of this tool of 0.94. In the research conducted by Mollazadeh, Mansour, Ejei and Kyamanesh (2002), the internal consistency of this tool was obtained 0.95. In this research, a group-based hope therapy was used. Over the last two decades, hope theory model have been evolved, which has had a high effect on researchers in the positivism psychology area. Charles Rick Snyder (1935-1935) proposed his theory for the first time and viewed it as the combination of "power of will," "power of achievement," "having goal," and "identifying the barriers" <sup>[17]</sup>. Instead of emphasizing on the emotional dimensions of hopefulness, Snyder has considered hope as a cognitive structure reflecting the motivation and ability of individuals to make effort to achieve the goals appropriate to their personality <sup>[18]</sup>. This theory argues that hope is not a passive feeling that occurs only in the dark moments of life, but it is a cognitive process by which individuals pursue their goals <sup>[19]</sup>. Hopeful people consider more meaning for life than hopeless people <sup>[20]</sup>.

Many studies on this structure have confirmed that the hope depends on both will and power, and these components of hope can be measured accurately and they have confirmed that people hope to enjoy many benefits that their peer lack them, including higher academic achievement, psychological

adjustment and physical health <sup>[21]</sup>. Hope means positive expectation for achieving goals and positive expectation has two components of the power of will and the ability to achieve (will + achievement = hope) <sup>[22]</sup>. It is the ability to design pathways towards desired goals despite the existing barriers and the ability to create motivation to start and continue moving in these directions. The hope is sum of these two components <sup>[14]</sup>. The content of hope therapy program was performed on experimental group in 5 sessions, 90 minutes per session (1 session per week and for 5 weeks). The content of the sessions was as follows: first session: introduction of group members to each other and to counselor, explaining the rules of the session, such as duration and number of each session, the rules for attending in the sessions, and the cooperation of the members during the sessions and the related assignments. They will also be asked to give their views about hope and discuss on them and prepare some sentences on the hope and a contract will be signed with them on lack of using negative sentences. Second session: one of the tools to increase the hope is to create a framework to create effective goals and with this method, the members are asked to recount important areas of their lives and then examine them to recognize their satisfaction. For this purpose, a worksheet is given for people to rank the areas and their level of satisfaction. Then, people will pursue a new framework. People will gain on the Snyder Hope approach and the three main components of hopes (goal, agency, and pathway) as well as the power of patience. Its effect on reducing negative emotions and enhancing positive emotions such as hope and self-esteem will be also discussed by members and the members are asked to write a story of their own life and one of them is reviewed voluntarily.

Then, a worksheet on hope will be given to a person to identify the symptoms of low hope and lack of hope (neutral) and high hope. In addition, a worksheet on creating an inner scenario of the steps to achieve the goal will be provided. Then, they will discuss about these two worksheets. Third session: after reviewing the assignments and discussing on them, the members will be asked to discuss on the main goal of their lives and the micro goals of its subset, and identify the barriers to achieve it. Then, the goal thinking will be taught and the hopeful goals will be explained and discussed. Then, the barriers to achieve the goal and the ways to overcome them will be discussed. The use of the technique of creating an internal scenario, providing a comprehensive list of all possible pathways, and discussing on the capabilities of the members and a list of pathways are the main goals of this session. In this session, after reviewing the assignments of the previous session and discussing on them, the pathway thinking is taught, that is, the effective pathways that people create for their defined goals. In fact, the ability to achieve the defined goals through the creation of several pathways to cope with possible barriers is strengthened. In this step, a worksheet is given to the members and they are asked to list and then discuss all possible pathways in relation to the goals that they have chosen. The members were also asked to review the next events in their minds and to

visualize solutions to them by predicting possible barriers and then, tell them to other members. Session four: After reviewing and discussing the assignments of the previous session, the agency thinking will be taught. It means that the thoughts that people have about their ability to start and continue to move in the chosen direction, are taught for them. In this session, the members are asked to discuss on the self-motivation and thoughts that members have with regard to their goals. In this session, the search for hopeful stories technique and the will check list will be used and a worksheet will be given to them to strengthen their will. Session five: the past sessions are reviewed and the barriers to achieve the goal and will are identified and expressed by the members in order to maintain the hope in the clients. Various alternative pathways selected in difficult situations are expressed and examined by the group, and members are encouraged to be a factor for increasing their hopes and they are asked to be active in finding the difficult points and determining the goals, and finding the effective ways to achieve the goal. At the end of the session, informative sentences and stories will be used. All members of the group are asked to express their feelings about the subjects and experiences expressed during the sessions.

It should be noted that descriptive statistics (mean, variance and standard deviation) and inferential statistics (covariance) were used to analyze the data. Then, the data were analyzed through SPSS software. The ethical considerations in this study included:

1. Getting the necessary licenses and approvals from the relevant authorities before performing the research
2. Considering the consent of women with MS to participate in the group-based hope therapy sessions.
3. Keeping the names and questionnaires and information of questionnaire confidential

## Results

The present study included a sample of 36 people (18 in the experimental group and 18 in the control group). They were selected by convenient sampling method. Out of the 36 patients in the experimental and control group, 12 people had an age between 30 and 35 years, 24 people had an age between 35 and 40. In addition, four people had excellent economic status, 12 people had a good economic status, and 20 had moderate economic status and none of the respondents reported poor economic status. Moreover, 8 of the respondents had diploma, 6 of them had associate degree, 18 of them had bachelor degree, and 4 of them had master degree. The respondent's marriage duration was 5 years and more, so that 10 of them have passed 5 to 10 years and 26 of them have passed 10 to 15 years of their marital life.

**Table 1: descriptive statistics of dependent variable of marital adjustment in two stages of pre-test and post-test**

Variable	Experimental group		Control group	
Marital	Pretest	Posttest	Pretest	Posttest

adjustment							
M	SD	M	SD	M	SD	M	SD
43.22	9.90	103.61	12.61	41.61	9.29	42.33	8.56

Significant difference was seen in the mean of the variables of marital adjustment in the experimental group underwent group-based hope therapy in two stages of the pre-test and post-test. In other words, the marital adjustment variables in the experimental group in the post-test stage compared to the pre-test stage, showed an improvement. However, as seen, there is no difference between the means of these variables in the control group in two stages of pre-test and post-test.

**Table 2: Mean and standard deviation of marital adjustment components in the experimental and control groups (n = 36)**

Variable	Experimental group		Control group	
	pretest	Posttest	pretest	Posttest
	M	SD	M	SD
Marital satisfaction	10.83	3.83	10.66	2.46
Dyadic cohesion	9.11	3.89	9.00	2.32
Dyadic consensus	17.38	9.67	16.05	5.82
Affective expression	5.88	1.60	5.88	1.11

It should be noted that the mean of all components of marital adjustment variable in the experimental group underwent group-based hope therapy is different in pre-test stage than that in post-test stage. In other words, the level of this variable improved in the post-test stage. However, according to Table 2, it is seen that the means of all components of marital adjustment in the control group in the pre-test stage and post-test stage are not significantly different.

**Table 3: Kolmogorov Smirnov and Shapiro-Wilk and Levine test for dependent variables**

Variable	test	Statistic	Significance level
Marital adjustment	Kolmogorov Smirnov	0.241	1.00
	Shapiro-Wilk	0.797	0.513
	Levene	164.55	0.56

Based on the output of the above tables, as the significance level of the dependent variables is greater than 0.05, the hypothesis of normality of data will be accepted. In the above table, which is related to the analysis of the equality of variance of the samples, as the significance level is more than 0.05, it can be concluded that the variance of the samples is homogeneous. Therefore, according to the results of Kolmogorov-Smirnov test and Levene test, it can be stated that it is possible to use parametric statistical tests in this study. After covariance analysis, it was found that the significance level is equal to 0.001 and less than 0.05, so the second

hypothesis is accepted. The effect of group-based hope therapy on marital adjustment is as much as the Eta coefficient (0.888), meaning that 0.882% of the variations in the mean score of marital adjustment in the post-test stage compared to that in the pre-test in the experimental group is due to the group-based hope therapy program.

One-month follow-up test: The effect of group-based hope therapy on marital adjustment lasts after one month.

**Table 4: T-test results to examine the difference between post-test and follow-up adjustment scores**

Variable	Equality of variances test		Statistic t	Degree of freedom	Significance probability	Difference of means
	F Statistic	Significance probability				
Marital adjustment	1.207	0.280	0.503	34	0.618	1.77

Based on the above table and the significance probability of the third column (0.28) related to the marital adjustment variable, the hypothesis of the equality of variances is accepted in two groups. Hence, equality of variances is confirmed. According to the sixth column, the significance probability (0.618) is greater than 0.05, so there is no difference between the marital adjustment of the experimental group and the marital adjustment of the same group after one month.

## Discussion

Based on the results of this study, this hypothesis was confirmed. It means that group-based hope therapy was effective in improving the marital adjustment of women with MS. However, no difference was seen in the control group. Moreover, this change continued up to one-month follow-up stage. No research was found related to this finding of the study. However, Mehrabizadeh Honarmand, Hosseinpour and Mehdizadeh (2010) [23] showed that life skills training increased marital adjustment. Sehat, Sehat, Khanjani, Mohebbi and Shahsiah (2014) [24] concluded that group training based on a solution-centered theory has a significant effect on marital adjustment. On a study conducted by Andriya Moraro and Nicoletta Tarliuk (2013) [25] with the aim of investigating predictors of marital adjustment and the difference between men and women in marital adjustment, attachment and relationships with families, the results showed that there is no difference between the two genders in these variables. Regardless of gender, only the attachment predicted the level of marital adjustment and in women, family relationships predicted the level of attachment. In a study conducted with the aim of evaluating the effect of religious commitment and insecure attachment on marital adjustment of recently married couples, the results revealed a positive and significant relationship between religious commitment and marital adjustment. Religious commitment prevented a negative

relationship between the attachment avoidance and marital adjustment. However, it exacerbated the negative relationship between attachment anxiety and marital adjustment. In explaining this result, it can be stated that Ellis argues that marital adjustment is the objective feelings of pleasure, satisfaction, and enjoyment by the spouse, considering all aspects of marital life <sup>[26]</sup>.

The result of the study can be explained by the fact that hopeful people have more agencies and more pathways to pursue their goals and can maintain their motivation and use the alternative pathways when faced with the barriers, so they can better solve their problems and experience different ways to adjust with their spouse. In a research conducted with the aim of evaluating the role of marital adjustment and perceived criticism in predicting symptoms of depression in couples in the first, fifth and tenth years of married life, Patterson-Post, Rawdoso, Stanley and Markman (2014) <sup>[27]</sup> concluded that early marital adjustment significantly predicted depression symptoms for both women and men. Perceived criticism also predicted depression symptoms in the fifth and tenth year of life, and these two factors were involved in predicting the symptoms of depression alone and in an interaction with each other. Based on the results of this study, group-based hope was effective in improving the marital adjustment of women with MS. In fact, hope consists of two components of conceptualization: the ability to design pathways toward desired goals in spite of the existing barriers and the ability to motivate them to start and continue moving in these directions. The hope is sum of these two components <sup>[14]</sup>. Hope is a psychological characteristic that is essential for satisfaction with life. Erickson (1964) states that hope is the most essential characteristic of the living creature and it is created as a result of humans' experience with primary caregivers and it leads to the belief in the person that the world is essentially a reliable place <sup>[28]</sup>. People with high hope are able to create alternative pathways when they are facing with barrier. In addition, people with high hope create more pathways than people with low hope <sup>[18]</sup>. Therefore, increasing hope and hope therapy can affect marital adjustment. Thus, it is suggested this approach to be used to prevent the serious problems given the effect of this approach on behavioral skills in the area of medical issues and functional abilities such as social role action. As treatment effects may not last for one month after the post-test stage, it is recommended that this therapeutic approach to be held periodically after the end of treatment to maintain the therapeutic effects for a long time. It is recommended that applied studies with similar topics on the effect of group-based hope therapy on other psychological problems of these women, including depression and anxiety to be conducted. Studies that are based on educational interventions (such as effective coping training, marital relationship training, sexual intercourse training) are recommended to be included in future studies.

## Conclusion

Group-based hope therapy can improve the marital adjustment of women with MS.

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