



# The effect of group therapy based on hope therapy approach on mental well-being, anxiety, depression and stress in female patients with Multiple Sclerosis

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**Abstract:** The present research aimed to study the effect of group therapy based on hope therapy approach on mental well-being, anxiety, depression and stress in female patients with Multiple Sclerosis. This research has been a quasi-experimental study with posttest-pretest design with control group. Sampling was firstly done as a public invitation among women and girls in MS Society of Kerman and then, the volunteers were randomly assigned into two groups including experiment (n=15) and control group (n=15) and they completed the questionnaires including anxiety, depression, stress and mental well-being before and after intervention in posttest. Data were analyzed by using software SPSS18 and Covariance statistical method. Participants were trained for 8 sessions. The findings showed a significant difference in posttest score compared with pretest in experiment group regarding all variables including anxiety, depression, stress and mental well-being ( $p < 0.001$ ). So, group therapy based on hope approach can be used in order to reduce anxiety, depression and stress and increase the mental well-being of women with Multiple Sclerosis.

**Keywords:** Group therapy based on hope approach, Multiple Sclerosis, Mental well-being, Anxiety, Depression and Stress

## INTRODUCTION

One of the painful events of human life is incidence of chronic diseases. Although patients suffering from chronic disease have enjoyed longer lifetime compared with past through advance in medical treatments, but they are still faced with issue related to adaptability.

Therefore, concentrating on life accompanied with quality and happiness for these patients is the major health and treatment challenge in the present century.

Multiple Sclerosis (MS) is one of the most common chronic diseases of the central nervous system that is accompanied with neurons demyelination and many demyelinated parts which are made by disease surround across the white substance and influence sensory and motor function. The most common age for this disease is 20 up to 40 years and this disease prevalence is more common in women rather than men. According to studies, approximately 50-60 percent of MS patients suffer from depression and approximately 25-40 percent of them suffer from

anxiety that strongly affect quality of these patients' life. Since physical diseases' symptoms and complications distinctly and remarkably affect efficiency and quality of person's life, so attempt should be made to improve person's life quality through on time prevention, treatment and rehabilitation. In psychosocial dimension of treatment of MS patients, it is necessary to help them to accept that they can enjoy the rest of their abilities and when MS affects a member of family, the use of advisory service is useful both for him and for other members of family. So, this disease should be adjusted and modified as much as possible to overcome this disease and help patient to improve quality of her/his life. Life quality is the opposite of life quantity and it means that the number of years which is accompanied with satisfaction, happiness and pleasure. Mental well-being is one of the life quality components refers to how people evaluate their lives and it has two components including cognitive and emotional. Today, researchers believe that providing mental well-being and life satisfaction leads human toward more success, mental and physical health in life. Negative and positive affection sets up different intellectual mechanisms which influence mental health (Sadat Raeesian et al., 2011). In a longitudinal study, Yung showed that there is relationship between increase in general satisfaction of life and increase in expectation of having happy years rather than unhappy ones. There is strong correlation between mental well-being and longer lifetime. Schneider, the founder of hope and treatment theory based on it, defines hope as structures including two concepts as follows: ability to plan toward desirable objectives in spite of existing five- pathway obstacles and required motivation agency or factor in order to use these six pathways. Hope is one of the human's main mental needs. In Seligman's point of view, human has one positive and one negative half and this is the time to pay attention to capabilities and positive aspects of human existence beside its vulnerabilities. Concentration on hope is placed at the pivot of this positive half. Happiness, hope, creativity and wisdom are the other scopes of positivist psychology. MS clinical affectations play an important role in person adaptability with this disease. So, psychotherapy intervention which target these affectations can be helpful in person adaptation (Allaeddin et al., 2008).

The studies have shown that hope therapy is one of the most effective ways for fighting against anxiety and depression and the people who have high level of hope or gain it over time, they have more knowledge about health issues, types and severity of stress and they take better care of themselves. Therefore, this method can be easily learned, applied and developed. Anxiety and stress are ones of the main reasons of voluntary disability. Findings have shown that hope therapy can be effective in improving life quality of patients Essential Hypertension (Sotude Asl et al., 2010). Two researches acknowledged that group therapy based on hope therapy approach has significantly increased hope in life and decreased women's anxiety and depression (Bijari et al., 2009 ; Allaeddin et al., 2008).

The results of a study in Norway showed that the level of depression prevalence in MS patients was significantly more than general population (Bahari, 2010). The results of two other study also show that hope therapy increases the level of happiness, meaning of life and self-esteem and it will decrease anxiety and depression (Bahari, 2010; Ghasemi et al., 2009). Some researches in Iran have also indicated that hope therapy influences hope level and it improves anxiety and depression and increase happiness and decrease social dysfunction (Allaeddin et al., 2008, Ghasemi et al., 2009 ; Sadat Raeesian et al., 2011; Namdari et al., 2011; Molayi et al., 2014; Farhadi et al., 2015). In addition, some studies confirm relationship between hope and psychological well-being. A browser study also showed that there is relationship between level of expectancy and psychological well-being and happiness (Sadat Raeesian et al., 2011).

This study is necessary because anxiety, depression, stress and psychological well-being of patients is considered as a main issue for all the society's classes. So, we will take a step in this affair if we are able to achieve some investigations, strategies and results through different researches in order to improve the level of anxiety, depression, stress and psychological well-being of patients. According to mentioned theoretical and research basis, the present research seeks to answer this question that whether group therapy based on Hope Therapy Approach

increase, anxiety, depression, stress and mental well-being in female patients with Multiple Sclerosis?

## Method

This is a quasi-experimental kind of study. Its research's plan is in kind of two groups including experiment and control and it consists of two stages including pretest and posttest. Independent variable was group therapy based on hope which applied just in experiment and its effect in posttest's score of people in experiment group was compared with control group. Research's statistical population included girls and women suffering from MS which were under support of MS society in 2016. Research's statistical population volume was equal to 700 number. Sampling method was in this way that at first, MS society of Kerman invited its members during a public invitation for a research work and then, while offering required explanation and research's objectives, the author asked the members at introductory session if they desire to cooperate, they should register and 30 number of them acclaim their desire for participation.

## Research tool

Depression, anxiety and stress scale (DASS 21): Each one of DASS's sub-scales includes 7 number of question whose final score is obtained through sum of its relevant scores. Each question is scored from zero (it is never true in my case) up to 3 (it is fully true in my case) (Fathi Ashtiani ,2011). The authors put the mentioned scale under factorial analysis whose results showed that 68 percent of total scale's variance are assessed by these three factors. Equity of stress, depression and anxiety in mentioned study were respectively equal to 9.07, 2.89 and 1.23 and Cronbach's alpha for these three factors were respectively equal to 0.97, 0.92 and 0.95 (Bahari, 2010). According to a report concerning a 400 number sample of public population of Mashhad in Iran, Cronbach's alpha value for depression, anxiety and stress were respectively equal to 0.77, 0.66 and 0.76 (Sahebi et al.,2001).

Mental well-being questionnaire: This questionnaire was made by Keyes and Magyarmv in 2003)including 45 question and three subcomponents including emotional, psychological and social well-being which consists of 12 questions regarding emotional well-being with 5-point Likert from 1 (all the time) to 5 (never), 18 questions regarding psychological well-being with 7-point Likert from 1 (strongly disagree) to 7 (strongly agree) and 15 questions regarding social well-being with 7-point Likert from 1 (very much disagree) to 7 (very much agree). Internal validity of emotional well-being subscale was equal to 0.91 at positive emotional section and it was equal to 0.87 at negative emotion section. Psychological and social well-being subscales had average internal validity from 0.4 to 0.7 and validity of total these scales was 0.8 and higher. Factorial reliability has been used in primary study in order to evaluate this scale. The results of confirmative factorial analysis have confirmed three-factor structure of this scale. According to report, reliability coefficient and re-test reliability was equal to 0.86.

The process of research performance: Participants in research (experiment and control group) were tested by mental well-being questionnaires and DASS as a pretest following sample selection and random assignment of subjects in experiment and control group and then, some group therapy sessions based on hope accompanied with tasks during sessions and homework and group discussion during 8 sessions and each session lasting 90 minutes were held. At the end of eighth session, the people are asked to again answer mental well-being questionnaires and DASS. Then, data were analyzed by using software SPSS18 and significance test of difference between posttest's scores by calculating pretest scores as covariance was used in order to compare scores of experiment and control group at the previous and next stages of intervention. A summary of content of group therapy based on hope sessions was as follows:

## Table 1- summary of group therapy based on hope session

Session	Content of sessions
1	Familiarizing therapist with participants, introducing session structure and purpose of training program based on hope theory
2	Explaining the manner of growth, necessary of existence, positive outcomes and their effect on hopelessness, depression and sense of emptiness
3	Encouraging participants to define their life story in order to find promising points in their life
4	Explaining these stories according to hope theory and reforming them, identifying members' past successes in order to discover these successes' factor and pathways
5	Offering a list of current events and important life dimensions and identifying level of people's satisfaction with each one of these events
6	Encouraging participants to select appropriate goals and expressing these features for them, help to increase level of hope in participants
7	Expressing appropriate pathways' features and encouraging participants to select suitable solutions in order to achieve determinant goals, converting pathways to collection of small steps and determining alternative pathways, help participants to maintain hope
8	Planning solutions for creating and reserving factor including positive self-talking and mental imagery, converting participants

### Findings

This research's descriptive findings including statistical indexes including average, standard deviation for all variables under study divided by experiment and control group at pretest-posttest stages have been offered at table 1. Covariance analysis was used to specify significance difference between mentioned scores. At first, required assumptions for performing covariance analysis was studied in order to analyze covariance. The variances were statistically equal and so, there is no reason for assuming that variances are heterogeneous. Evaluating regression homogeneity also supports meaningless of condition and pretest. Therefore, covariance analysis was used for statistical analysis.

**Table 1-Average and standard deviation of research's variables in two groups including experiment and control at pretest- posttest stages**

Group	variable	pretest		Posttest	
		average	Standard deviation	average	Standard deviation
Experiment	Psychological well-being	38.54	6.82	41.15	7.22
	Emotional well-being	18.23	2.26	20.65	2.10
	Social well-being	39.98	2.69	44.72	4.99
	Anxiety	27.03	6.00	24.11	5.86
	Depression	31.21	7.43	29.43	6.23
	stress	25.07	7.88	23.19	6.53
Control	Psychological well-being	32.01	6.73	32.19	6.01
	Emotional well-being	29.53	4.53	28.00	4.52
	Social well-being	36.21	2.86	35.89	2.12
	Anxiety	27.07	2.05	27.59	2.08
	Depression	31.21	1.71	32.88	2.42
	stress	25.07	2.02	33.24	5.38

**Table 2- The results of multi-variate covariance analysis (Mango) on scores of posttest in mental well-being, anxiety, depression and stress**

Test name	value	Hypothesis D f	Error D f	F	Statistical power	P value
Pila effect test	0.92	6	22	92.35	1	0.001
Lambda Pickles test	0.75	6	22	92.35	1	0.001
Hoteling effect test	12.30	6	22	92.35	1	0.001
Roy largest root test	12.30	6	22	92.35	1	0.001

**Table 3- The results of one-way covariance analysis in Mango text on scores of posttests of mental well-being, anxiety, depression and stress of experiment and control group with pretest**

Variable	Total squares	Degree of freedom	Average squares	F	Size	P value
Psychological well-being	254.75	1	254.75	0.40	0.85	0.001
Emotional well-being	299.53	1	299.53	0.57	0.71	0.002
Social well-being	260.41	1	260.41	0.61	0.83	0.001
Anxiety	170.90	1	170.90	0.53	0.75	0.040
Depression	299.37	1	229.37	1.21	0.84	0.022
stress	179.79	1	179.79	1.07	0.90	0.01

P<0.05

### Discussion and conclusion

Obtained findings show that group therapy based on hope therapy approach influences mental well-being, anxiety, depression and stress of female patients with MS (Multiple Sclerosis). These findings are consistent with research's results (Allaeddin et al., 2008; Bahari, 2010; Ghasemi et al., 2009, Sadat Raeesian et al., 2011):

Hope therapy approach in this study caused a significant decrease in level of anxiety, depression and stress following therapeutic intervention between experiment and control group. Today, hope is considered as a main therapeutic factor in medicine, nursing and mental health and it is currently attracted the attention of many authors as one of the main components in improving people 9440. The studies have shown that the signs of depression and anxiety are less in hopeful persons. Hope is considered as an appropriate predictor of behaviors which are public health indicator such as positive response to medical intervention, mental health, positive mood and handling the problems (Farhadi et al., 2015). Research's results also showed that hopelessness and consequently depression is a common outcome in patients with chronic diseases and depression occurrence can be largely prevented through increasing hope level in these patients and on the other hand, these patients tend to attract others' attention to their psychological aspects beside their specialized medical treatments. On the other hand,

research's results showed that hopefulness is considered as a main factor during individual and group therapy and it predicts some positive results in future public health of patients. The patients in this therapy plan are trained to determine main, accessible and measurable objectives and consider several pathways to achieve them. In Feldman and Snider's point of view, there is relationship between hope and meaning of life so that hope is known as one of the components of meaning of life.

In Feldman and Snider's perspective and according to Snider's theory, in explanation of findings, we can say that having a hopeful thinking and enough resource for achieving these objective makes life meaningful. In the other words, there is an interaction between these two variable. It means that increase in hope will lead to increase in meaning in life and increase in meaning will increase hope or targeted thinking and according to Feldman and Snider's research results, increase in meaning and hope will interactively lead to increase in mental-well-being, positive emotion and life satisfaction.

### **Conclusion**

The present research showed that the use of hope-based therapy approach has been able to help the improvement of MS patients' depression condition and upgrade their general health. The results indicated that hope is one of the main factors of remediable predictors. Therefore, it is suggested that this therapy method should be done with larger sample size and more persistent pursuing program and also application of other data collection methods such as interview.

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