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The Effectiveness Of Compassion Therapy On Self-Efficacy And Pain Control In Patients With Ms

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Abstract

Background and Aim: MS is an inflammatory disease of the central nervous system characterized by demyelination of the myelin sheath of axons and leads to defects or limitations in the transmission of nerve impulses. The aim of the present study was to evaluate the effectiveness of compassion therapy on self-efficacy and pain control in patients with MS.

Methods: The present study is applied in terms of purpose and semi-experimental in terms of method with pre-test and post-test design with control group. The statistical population of this study included all people with multiple sclerosis (MS) who referred to medical centers in Tehran in 1400. 30 people were selected from the study population by available sampling method and randomly assigned to experimental and control groups (15 people). they got. The experimental group was trained in 12 sessions of 90 minutes with compassion therapy. Subjects completed the Sherer et al. Self-efficacy questionnaire and the pain management questionnaire (Rosenstein & Kyiv, 1983) before and after treatment. In order to analyze the data of this study, SPSS software version 21 and descriptive statistics and inferential statistics and analysis of covariance were used.

Results: The results of analysis of covariance confirm the effect of compassion therapy on increasing self-efficacy and pain control in patients with multiple sclerosis ($p < 0.001$).

Conclusion: The results of this study showed that compassion therapy is an effective method to increase self-efficacy and pain control in patients with multiple sclerosis; Therefore, counselors and therapists can use compassion therapy to increase self-efficacy and control pain in MS patients.

Keywords: Compassion Therapy, Self-Efficacy, Pain Control, MS

1.Introduction

Multiple sclerosis (MS) is an autoimmune and progressive disease of the central nervous system that destroys the myelin sheath, causing plaque to form in parts of the white matter of the brain and spinal cord that affects the subcortical region. The disease has an unknown cause and progressive nature with periods of relapse and recovery, so that people with the disease, during their lives experience a variety of physical and mental disorders caused by the disease, and these disorders of daily functioning, family and social life, independence It severely affects performance and planning for the future (Solari and Radis, 2011). The National MS Association reported in 2011 that it affects more than 1.2 million people worldwide (Moss Morris et al., 2012). There are currently approximately 500,000 patients with MS in the United States, and 10,000 new cases are added each year (Masoudi et al., 2009). The incidence of MS in Iran is 50 per 100,000 people (Seyed Fatemi, Heidari and Hosseini, 2012). Recent studies by the American Academy of Neurology suggest that stress is an important factor in exacerbating and recurring the symptoms of multiple sclerosis. The age of onset of the disease is often between 20-60 years. Immunological, genetic, environmental, trauma and stress factors have been considered to be effective in its occurrence. Common abnormalities and disorders in MS patients include mood and emotional disorders, the most important of which are Major Depression Disorder, Dysthymic Disorder, Bipolar Disorder, and Panic Disorder. (Panic disorder) and Generalized anxiety disorder. Depression is the most common and at the same time the most debilitating psychological reaction in people with MS (Jahanbakhshian et al., 2016). Research shows higher rates of depression in these patients than in the general population and other patient groups, and estimates indicate a prevalence of depression in these patients ranging from 16% to 57%. The risk of suicide in these patients following depression is 3 to 10 times higher than the general population (Cigarette and Abernetti, 2018).

None of the most important factors in explaining behaviors, activities and control of human function is more effective than self-efficacy and people's self-efficacy beliefs play an important role in how they approach different situations and how they feel, think and behave. Self-efficacy is an important sub-theory In the discussion of motivation (Bandura, 1993). Research has shown that self-efficacy beliefs as the most important determinants of motivation, emotion, thinking and action of each person, is one of the important structures in Bandura social cognitive theory and one of the personality variables that plays a very important role in dealing with life issues (Caprara et al., 2015). Research has also shown

that performance beliefs refer to an individual's own ability to perform certain actions or tasks, and are a significant predictor of effort and success (Gala et al., 2014; Talsma et al., 2018). In a study, Smith et al. Found that compassion-focused therapy education significantly increased optimism and self-efficacy and significantly reduced rumination in students (Smith et al., 2016).

Pain is a common phenomenon in MS patients and it has recently been identified that it plays an important role in their mental health and quality of life (Turk et al., 2003); Higher pain intensity leads to poorer performance in most components of the Mental Health Scale (SF-36), including overall health, vitality, mental health, and social functioning (Forbes et al., 2019).

Compassion therapy is one of the treatment methods that seems to be effective in increasing self-efficacy and pain control; In this context, new instruments called self-compassion have been proposed in psychology for some time. Nef has defined self-compassion as a three-component instrument, including kindness to oneself in the face of self-judgment and human sharing in the face of isolation and mindfulness in the face of extreme imitation (Neff, 2009). The combination of these three related components is characteristic of a self-compassionate person; Hence, Gilbert proposed this treatment of compassion-focused therapy (CFT) (Gilbert, 2009). The basic principles in CFT refer to the fact that external soothing thoughts, factors, images, and behaviors must be internalized, and in this case, the human mind calms down in the face of these internalities as it responds to them. Nef, 2009). In addition, in the treatment of CFT, people learn not to avoid or suppress their painful emotions; So they can, in the first place, recognize their experience and feel compassion for it (Gilbert, 2009). The results of research on the role of self-compassion training on reducing turmoil in the face of negative life events in homeless girls showed that this training has a positive and significant effect on reducing the turmoil of homeless girls (Morley et al., 2020). A study of the relationship between self-compassion and interpersonal conflict and health in Dutch students found that there is a negative relationship between self-compassion and interpersonal conflict and the use of violence, and a positive relationship with health (Jarnell and Neff, 2013). The results of research on the effectiveness of group training focused on self-compassion on anxiety and depression of students of the Islamic Azad University of Baft showed that the implementation of educational intervention focused on self-compassion can lead to a significant reduction in the experimental group (Manzari Tavakoli, 2016). Accordingly, according to the studies and theories presented in this study, the effectiveness of compassion therapy on self-efficacy and pain control in patients with MS was considered, so the researcher seeks to answer the question of whether compassion therapy on self-efficacy and control Is pain effective in patients with MS?

2.Method

The present study is applied in terms of purpose and semi-experimental in terms of method with pre-test design and post-test with control group. The statistical population of this study included all people with multiple sclerosis (MS) who referred to medical centers in Tehran in 1400. 30 people were selected from the study population by available sampling method and randomly assigned to experimental and control groups (15 people). they got. The experimental group was trained in 12 sessions of 90 minutes with compassion therapy. Subjects completed the Sherer et al. Self-efficacy questionnaire and the pain management questionnaire (Rosenstein & Kyiv, 1983) before and after treatment. In order to analyze the data of this study, SPSS software version 21 was used and also descriptive statistics and inferential statistics and analysis of covariance were used. Also, Shapiro-Wilk test was used to assume the normality of the data, Loon test was used to check the homogeneity of variances, and M-box test and Mohli sphericity were used as covariance analysis assumptions.

In the field of ethical considerations of the research, while providing sufficient explanation about the purpose, importance, method, duration and conditions of the research intervention and evaluations to the participants, written consent was obtained from them to participate in the research. Also, they could withdraw from the research at any stage of the research if they were not satisfied. In order to thank the members of the control group for their participation in the research, in addition to their commitment to be aware of the research results, gifts were also provided for them.

Inclusion criteria include 1- Diagnosis of MS 2- Non-participation in previous treatment program 3- Absence of psychological disorder or history of mental illness and hospitalization in psychiatric wards 4- No use of drugs, drugs and alcohol (to reduce the effects of factors The intervener used drugs, drugs and alcohol (even casually) and exclusion criteria included: 1. Absence from treatment sessions.

Research tools

Self-efficacy questionnaire

Scherer et al.'s self-efficacy questionnaire was developed in 1982 and has 23 items. 17 items of this questionnaire are dedicated to general self-efficacy and the other part is dedicated to self-efficacy experiences in social situations. The subject answers the questionnaire questions based on the 5-point Likert scale. Scherer et al. Reported the reliability of this questionnaire as 0.89. In Barati research 0.76 and in Najafi and Folancheng research its reliability has been reported 0.80 (Qureshi and Behboodi, 2017). The reliability of this questionnaire in the present study was 0.82 by Cronbach's alpha method.

Pain Management Questionnaire

The questionnaire was developed by Rosenstein & Keefe (1983) and contains 42 items that contain six strategies for coping with psychological pain, including return attention, reinterpreting pain, talking to oneself, ignoring pain, creating catastrophe, and hope, and a coping strategy. Measures behavioral activity including increased behavioral activity. Each strategy has six questions. The questionnaire scores on a continuum between 10 and 6, with subjects answering answers between zero (zero) and always (six). The range of scores for the whole questionnaire is between 0 and 252. Asghari Moghadam and Golk studied the psychometric properties of the questionnaire in the Iranian population and reported the reliability coefficient of its subscales between 0.74 and 0.83. The results of their study also confirmed the criterion validity and predictive validity of this questionnaire (Asghari Moghadam and Golk, 2001). Rosenstein and Kyiv (quoted by Asghari Moghadam and Golk) standardized this questionnaire among a group of patients with chronic low back pain and obtained its internal consistency coefficient of seven subscales between 0.1 and 0.85.

Content of compassion therapy sessions

Session	Session content
1	Establish initial communication, gain the trust and cooperation of group members. Provide treatment logic and familiarity with group work method and its rules, answer the questionnaire and conclude a treatment contract.
2	The logic of compassion-based therapy and understanding compassion and self-compassion, distinguishing compassion from self-pity, assessing the extent of emotional distress, the five paths to self-care, meditation on love and self-love.
3	Mindfulness training along with physical examination and breathing exercises, familiarity with compassion-based brain systems, empathy training, safe place imaging training, value discovery.
4	Familiarity with the characteristics of people with compassion, compassion for others, cultivating a feeling of warmth and kindness towards oneself, teaching empathy.
5	Practice mindfulness of voice, practice mindfulness of breathing, use of compassionate imaging skills, use of soothing breathing technique.
6	Encouraging subjects to self-knowledge and examining their personality as a person (with compassion) with (non-compassionate) according to educational topics, identification and the most practical (cultivating a compassionate mind) (value of self-compassion, empathy and sympathy with oneself and others, teaching metaphor physiotherapist), Forgiveness training.
7	Familiarity and application (exercises for cultivating compassionate mind) forgiveness, acceptance without judgment, teaching the metaphor of the flu, teaching tolerance.

8	Teaching the art of writing a letter of daily compassion and promoting self-compassion through emotional release; Method training (recording and daily diary of real situations based on compassion and performance of the person in that situation).
9	Practical practice of creating compassionate images, teaching styles and methods of expressing compassion (verbal compassion, practical compassion, cross-sectional compassion, continuous compassion), teaching the development of valuable and transcendent emotions.
10	Training not to judge and everyday experiences; Pathological study of the factors that cause fear and repulsion of the subjects against their compassion.
11	Teach methods to deal with factors that disrupt your compassion and use the technique of relaxation.
12	Training and practicing the skills, reviewing and practicing the skills presented in the previous sessions to help the subjects to be able to cope in different ways with different situations of their lives, finally summarizing and presenting solutions to maintain and apply this treatment in life Everyday, running post-tests.

3.Results

The mean and standard deviation of self-efficacy and pain control variables in the two groups of compassion education and the control group separately for pre-test and post-test are shown in Table (1).

Table (1): Mean and standard deviation of self-efficacy and pain control variables

Standard deviation		Average		group	Variable
Post-test	pre-exam	Post-test	pre-exam		
7/85	5/56	44/25	28/68	Compassion therapy	**Self-efficiency**
5/42	5/78	34/47	35/08	Control	
7/78	5/95	18/68	10/20	Compassion therapy	**Pain control**
6/87	6/35	12/66	11/68	Control	

As shown in Table 1, changes in pre-scores- Test, post-test on self-efficacy and pain control variables occurred in the compassion therapy group. In compassion therapy, mean and standard deviation of self-efficacy and pain control scores after the test were significantly

increased compared to the pre-test. In this study, the statistical test of covariance has been used due to its greater relevance and compatibility with the research hypothesis.

Table (2): Comparison of the difference between post-test-pre-test scores of self-efficacy and pain control in the two groups of compassion therapy and control

P	F	MS	DF	SS	Dependent variable	Source
0/001 0/001	270/70 8/50	1318/53 802/205	2 2	2637/06 1604/41	Self-efficiency Pain control	**group**
		16/018 0/340	28 28	448/52 9/52	Self-efficiency Pain control	**Error**
			30 30	1580/35 2105/22	Self-efficiency Pain control	**Total**

According to the results of Table 2, after adjusting the pre-test scores, the difference between the groups at the alpha level of 0.01 is significant; Therefore, the research hypothesis on the effectiveness of compassion therapy on self-efficacy and pain control in patients with MS and the differences between groups in the post-test is confirmed.

4.Discussion and conclusion

The aim of this study was to evaluate the effectiveness of compassion therapy on self-efficacy and pain control in patients with MS. The results obtained from the comparison of self-efficacy and pain control post-test in the two groups, indicate that after participating in compassion therapy sessions, the mean scores of the variables mentioned in the post-test stage increased compared to the pre-test stage. People with MS have had a significant impact. The findings of this study are consistent with the research of Salimi et al. (2018), Qutour et al. (2018), Gonzalez et al. (2018), Morley et al. (2013), Manzari Tavakoli (2016). Explaining this finding, it can be said that because the system of threat and self-protection in patients with MS due to psychological disorders such as depression and anxiety is a kind of severe overwork, so as a result, the levels of stress and anxiety in these people will be high. This leads to lower levels of self-efficacy; On the other hand, in MS patients, the pain satisfaction and pain system has a lower level of development and they have never had enough opportunity to develop this system. Compassion-focused treatment acts like mind physiotherapy for these people. Thus, by stimulating the pain relief system, it provides the ground for its transformation, and with the evolution of this system, a person's resilience to the problems and pains of the disease increases and improves self-esteem and self-efficacy (Gilbert, 2009). Also, compassion-based therapy is based on sensitivity to suffering in oneself and others, being kind to oneself and having kind attention to oneself, kindly arguing instead of logical reasoning and talking to oneself with positive sentences instead of critical and self-

blame sentences, and generally accepting. Suffering, as well as communicating with it without feeling ashamed or weak, leads to kind behavior, and as a result, it can lead to a better feeling about oneself and a sense of self-efficacy; Therefore, in explaining the effect of compassion-based therapy on the self-efficacy of MS patients, it can be said that compassion-focused treatment seeks to clarify the main components of compassion such as attention sensitivity, caring motivation, empathy, empathy, distress tolerance and non-judgmental perspective. It is self-centered, and compassion-focused therapy emphasizes the release of individuals from these mental traps. Compassion-focused therapy emphasizes breathing training, mindfulness, and imagery. In addition, pragmatic techniques such as practicing and illustrating oneself as a kind person are used to help individuals build identities with compassionate qualities. Subsequently, this new "self" becomes a safe base for facing problems and sufferings, which paves the way for a change in the individual's existence and overcoming the feeling of inadequacy, and thus promoting a sense of self-efficacy in the individual. Compassion strengthens people's courage in the face of difficult and dark aspects of the mind and leads to a positive feeling about themselves. Reducing hostility towards oneself and developing one's abilities to create feelings of self-confidence, kindness and self-reliance were also among the main goals of compassion-focused treatment, which has been able to act as an antidote to feelings of inadequacy and stress in MS patients. Slow (Ashworth et al., 2011).

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