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Comparison of the effectiveness of group-based compassion-focused therapy and acceptance and commitment therapy on experiential avoidance in married patients with relapsing-remitting multiple sclerosis

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Abstract

Introduction: The current study aimed to compare the effectiveness of group-based Compassion-Focused Therapy (CFT) and Acceptance and Commitment Therapy (ACT) on experiential avoidance in married patients with relapsing-remitting multiple sclerosis.

Materials and Methods: The statistical population included all patients with relapsing-remitting multiple sclerosis who were referred to the MS Comprehensive Center of Mashhad University of Medical Sciences in 2022. From the statistical population, using a purposive and convenient sampling method, 24 patients were selected, and randomly assigned to three equal groups (groups A, B, and C). Group A received group therapy based on CFT, group B received ACT, and group C was the control group. We used SPSS 20 software and repeated measures analysis of variance to analyze the data.

Results: Results indicated a significant difference between the means of CFT group and ACT group compared to the control group. The both interventions were significantly decreased experiential avoidance ($P< 0.01$), while there was no significant difference between two interventions.

Conclusion: We concluded that compassion-focused therapy and acceptance and commitment therapy effectively reduce experiential avoidance in patients with multiple sclerosis.

Keywords: Acceptance and commitment therapy, Compassion-focused therapy, Experiential avoidance, Multiple sclerosis

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Introduction

Multiple Sclerosis (MS) is a prevalent neurological disease characterized by the involvement of multiple regions of the central nervous system. It is considered one of the most disabling diseases of young adulthood, affecting a significant number of individuals worldwide. Women are more likely to develop MS than men. The disease is most prevalent in the 20-40-year age group (1).

The progressive nature of MS affects various aspects of an individual's life. Once diagnosed, the disease disrupts normal life, particularly in areas requiring social engagement, employment, and family formation (2). Living with a chronic progressive disorder like MS not only creates stress for patients but also causes significant distress for their intimate partners (3). The disease impacts an individual's family and social life, leading to social, psychological, and physical consequences for both the patient and their family, which can sometimes be life-threatening (4).

MS patients experience higher levels of anxiety and depression compared to the general population (5). This is often due to the chronic pain and irreversible physical disabilities associated with the disease (6). Acceptance of the disease by these patients is often challenging due to their expectations regarding clinical manifestations and fear of disability (7). They often employ maladaptive coping strategies to overcome fear, resorting to concealment and denial (8). Therefore, how these patients manage their emotions can significantly impact their emotional responses. Some individuals attempt to reduce their anxiety by avoiding negative emotional experiences (9). This avoidance of internal experiences (such as negative emotions, thoughts, and unpleasant bodily sensations) is termed experiential avoidance (10).

Experiential avoidance is defined as an individual's tendency to avoid unpleasant internal experiences (i.e., thoughts, emotions, and sensations), which can lead to detrimental consequences in the long run. As a psychological process, experiential avoidance plays a significant role in the development of depressive symptoms in individuals with chronic illnesses (11). Growing evidence suggests that acceptance leads to a reduction in experiential avoidance. Moreover, Acceptance and Commitment Therapy (ACT) has gained a prominent role in improving psychiatric problems arising from physical illnesses. Recent research findings also indicate the impact of ACT on perceived stress in MS patients (12).

In acceptance and commitment theory and recent theories, experiential avoidance is considered a significant factor in the etiology and maintenance of psychological disorders (13). ACT is a functional contextual behavioral therapy. Acceptance is introduced as one of the processes of psychological flexibility in the ACT approach. In this model, acceptance does not imply passive resignation in a hopeless situation but refers to the active and conscious acceptance of personal events, especially when these events cause psychological distress. It is also noteworthy that the negative aspect of acceptance, in terms of psychopathology, is experiential avoidance (14). The core principle of acceptance and commitment therapy is that most psychological problems stem from experiential avoidance. This refers to an individual's tendency to avoid, control, or escape from unwanted and unpleasant private experiences, such as thoughts, urges, and emotions (15). Consequently, ACT targets experiential avoidance to achieve psychological flexibility. Previous studies have demonstrated that experiential avoidance can mediate the relationship between self-compassion and illness-related psychological outcomes (16).

A strong negative association between self-compassion and experiential avoidance has been reported. One study found that self-compassion training in chronic pain patients reduced avoidance in this group (17). This suggests that individuals with high levels of self-compassion experience greater psychological well-being. This is because they do not perpetuate the inevitable pain and feelings of failure experienced by all individuals through self-criticism, isolation, and increasing identification with thoughts and emotions (18). Instead, they approach these experiences with kindness and understanding. Self-compassion training addresses suffering and harm and fosters a sense of self-help to eliminate one's problems. Self-compassion is conceptualized as self-care instead of self-judgment, shared humanity instead of isolation, and mindfulness instead of identification. In Compassion-Focused Therapy (CFT), individuals learn not to avoid or suppress painful emotions (19). Instead, they are encouraged first to recognize their experience and have compassion for themselves. Self-compassion is defined as a three-component construct: self-kindness versus self-judgment,

shared humanity versus isolation, and mindfulness versus over-identification. In this therapeutic approach, individuals are also helped to let go of their avoidances by accepting their emotions and increasing self-kindness and acceptance (20). Regarding the impact of psychological well-being of MS patients on their lives, we aimed to compare the effectiveness of ACT vs. CFT on experiential avoidance in these patients.

Materials and Methods

The study population included all relapsing-remitting MS patients who visited the MS Comprehensive Center of Mashhad University of Medical Sciences in 2022 and had a medical record. The sample comprised 24 patients were selected using the convenience sampling. They were divided randomly into the experimental and control groups (21).

Inclusion criteria included married MS patients, at least three months have passed since the diagnosis of the disease, age between 20 and 45 years old, no concurrent severe psychiatric diagnoses, and not participating in other treatment programs at the same time. Exclusion criteria included failure to attend more than two group counseling sessions and the progression of the disease to the point where it creates severe physical limitations for attending group counseling sessions.

Research instruments

A) Acceptance and Action Questionnaire - Second Edition (AAQ-II): Bond et al. (2011) developed this 10-item questionnaire based on the original AAQ developed by Hayes et al. (2004). The AAQ-II measures a construct that relates to psychological flexibility, acceptance, experiential avoidance, and psychological inflexibility. Assessing the psychometric properties of the questionnaire, the AAQ has satisfactory reliability, validity, and construct evidence. The mean alpha coefficient was 0.84 (range: 0.78-0.88), and test-retest reliability over 3 and 12 months was 0.81 and 0.79, respectively (15). In Iran, exploratory factor analysis yielded two factors: emotional experience avoidance and control over life. The internal consistency and split-half reliability were satisfactory (0.71-0.89). Additionally, experiential avoidance of emotions was significantly correlated with symptoms of depression and anxiety, difficulty regulating emotions, and indices of distress on the General Health Questionnaire (22).

B) Acceptance and Commitment Therapy (ACT): The ACT consisted of eight 90-minute weekly sessions (15). It should be noted that the responsible author for the experimental group conducted acceptance and commitment therapy sessions.

C) Compassion-Focused Therapy (CFT): This therapy consisted of eight 90-minute sessions held once a week (17). Also, Compassion-Focused therapy sessions were conducted by the first author for the experimental group. Table 1 summarizes the content of the ACT and CFT.

Table 1. Content of ACT and CFT

Session 1	Introduction of group members to each other and establishing a therapeutic relationship. Familiarizing individuals with the research topic. Investigating multiple sclerosis (MS) in each group member, including the duration of the disease and actions taken. General assessment and responding to questionnaires.
Session 2	Exploring the inner and outer world within Acceptance and Commitment Therapy (ACT). Creating desire to abandon ineffective control strategies and understanding that control is not the solution. Introducing alternative approaches for control i.e. desire
Session 3	Identifying individual values. Explicitly stating values. Setting goals. Declaring actions and acknowledging obstacles. Choosing healthy relationships based on motivation, desire, and passion.
Session 4	Familiarity with the function of the mind and how to get rid of destructive thoughts, weakening expectations (not eliminating them), Teaching conflict resolution methods.
Session 5	Further exploring the values of each individual and deepening the previous concepts. Understanding fusion and defusion, and performing exercises for defusion. Identifying shared values and taking committed actions, as well as recognizing the strengths of both partners.
Session 6	Introduction and identification of relationship obstacles: Disconnection, reaction, avoidance, internal mindset, and overlooked values. Understanding self-concepted fusion and learn how to defuse from it.
Session 7	Introduction the concept of psychological fog, including layers of "shoulds," "coulds," "only ifs," and "wish I coulds." Discuss mindfulness and the importance of being present in the moment.
Session 8	Choosing effective action based on values despite unpleasant thoughts and feelings Conducting a forgiveness ceremony and create a commitment oath to apply learned concepts.

Session 1	Pre-test administration Introduction of therapist and group members Discussion of group goals and structure Review of expectations for therapy program Introduction to the principles of Compassion-Focused Therapy (CFT) Differentiation between compassion and self-pity
Session 2	Definition and benefits of compassion Exploring how compassion can help overcome challenges Mindfulness training with body scan and breathing exercises Introduction to brain systems related to compassion Identifying Characteristics of compassionate individuals Practicing compassion towards others
Session 3	Developing feelings of warmth and kindness towards oneself Recognizing shared human experiences and embracing imperfections Countering self-destructive thoughts and emotions Cultivating warmth, energy, mindfulness, acceptance, wisdom, strength, and non-judgment training
Session 4	Self-Exploration and Compassionate Self-Identity Self-reflection on compassionate and non-compassionate aspects of one's personality Identifying and applying "Compassionate Mind Training" exercises Appreciating the value of compassion, empathy, and self-compassion Extending compassion towards oneself and others
Session 5	Learning and practicing various methods of expressing compassion (Verbal compassion, Practical compassion, Momentary compassion, Sustained compassion) Integrating these into daily life
Session 6	Teaching compassionate skills to participants in various aspects, including compassionate attention, compassionate reasoning, compassionate behavior, compassionate imagery, compassionate feelings, and compassionate perception. Utilizing the "Empty Chair" Gestalt technique to explore the roles of the inner critic, self-critic, and compassionate self Identifying the tone and voice of the inner critic and compassionate self during internal dialogue Examining the influence of significant figures from one's life (like parents) on internal dialogue patterns
Session 7	Completing a weekly chart of critical thoughts, compassionate thoughts, and compassionate behaviors Identifying personal colors, places, and music that evoke feelings of compassion Addressing fears and barriers to self-compassion Learning techniques for compassionate imagery, rhythmic soothing breathing, mindfulness, and writing compassionate letters
Session 8	Summarizing key takeaways and responding participant questions Overall evaluation of group sessions Expressions of gratitude to participants Post-test administration

Results

In the compassion-focused therapy group, the level of education was 3 with a diploma and associate's degree, and 5 with a bachelor's degree.

In the acceptance and commitment therapy group, 4 had a diploma, 4 had bachelor's and master's degrees, and 3 had a diploma. In the control group, 3 had diplomas, and 5 had bachelor's and master's degrees.

Table 2. Descriptive statistics of experiential avoidance in MS Patients by assessment stage and group

Variables	Group	Pre-test		Post-test		Follow-up	
		Mean	S tandard deviation	Mean	S tandard deviation	Mean	S tandard deviation
Experiential avoidance	CFT	36.88	2.54	27.62	2.44	27.62	2.63
	ACT	35.75	2.46	24.75	2.51	26.12	2.49
	Control	44.00	2.14	44.25	2.20	45.00	2.13

Results in Table 2 showed that, in the post-test and follow-up stages, both intervention groups had lower means than those in the control group. Mean comparisons indicate that mean scores changed from pre-test to post-test and follow-up in both the CFT and ACT groups. However, these groups had no significant change in scores from post-test to follow-up.

We used a one-way repeated-measures (ANOVA). Bonferroni post hoc tests were also used to compare means by stage. The distribution of all variables is normal within the groups ($P< 0.05$). Box's M test also indicated that homogeneity of the variance-covariance matrix was achieved (Box's M= 57.817, F= 3.600, $P> 0.05$). Bartlett's sphericity test also indicated a significant correlation in experiential avoidance ($\chi 2= 109.257$, $P< 0.01$). The Mauchly's Sphericity test results are presented in Table 3.

Table 3. Results of repeated measures ANOVA for experiential avoidance in CFT and ACT groups

Variable		Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F	P	Eta Squared
Avoidance of Experiential	Within-group	Time	198.340	1	198.340	116.416	0.0001	0.847
		Time*Group	120.264	2	60.132	10.275	0.001	0.495
		Error (Time)	122.896	21	5.852			
	Between-group	Group	3308.361	2	1654.181	5.845	0.010	0.358
		Error	5943.417	21	283.020			

Table 3 showed a significant difference between the two experimental groups regarding the sphericity test and the interaction effect of the test, group membership, and intergroup membership ($P< 0.01$). The results of the repeated measures (ANOVA) revealed a significant interaction effect between time and group on experiential avoidance ($P< 0.01$). This means that the difference in experiential avoidance between the experimental groups and the control group changed over time. The eta-squared values were greater than 0.10, indicating substantial differences between the groups. The results of the Bonferroni post-hoc tests for comparing means by test phase and group are presented in Table 4.

Table 4. Bonferroni post-hoc tests for comparing means of experiential avoidance by stage in the groups

Variable	Base group vs comparison group	Mean difference	P
Experiential avoidance	CFT and ACT	1.833	1.000
	CFT and control	-13.375	0.036
	ACT and control	-15.208	0.015

The results of Table 4 indicated significant mean differences between the CFT group and the control group for experiential avoidance and between the ACT group and the control group for experiential avoidance. However, the score difference was greater for ACT than for CFT, but there was no significant difference between the two treatment groups in experiential avoidance.

Discussion

The results showed no significant difference between the two groups. Therefore, both treatments effectively reduce experiential avoidance in MS patients, but ACT had a greater effect than CFT. This finding is consistent with many similar studies. Bakhshipour and Mahdian compared the effectiveness of ACT and CFT and Compassion-Enriched ACT on communication patterns of married women with depression and marital conflicts. They found that treatment methods reduced conflicts and improved marital relationships in these women (23). Also, Rezaei et al., compared ACT and CFT on resiliency and psychological well-being of individuals diagnosed with HIV and concluded that both interventions improved resiliency and psychological well-being (24).

To explain these results, ACT is an important alternative to experiential avoidance that involves actively and consciously accepting personal events that are connected to one's history and not making any effort to reduce the frequency or change the form of those events, especially when they cause psychological harm. In committed action, the individual is encouraged to try to achieve their goal (25). People are taught to live in the present moment and better cope with everyday challenges by

accepting their emotions and avoiding experiential avoidance. Acceptance is an alternative to experiential avoidance. Acceptance involves the active and conscious desire to experience uncontrollable events without trying to change them, especially when doing so causes further psychological harm (15). For example, people with anxiety are taught to accept anxiety as just a feeling, fully and without defense. Alternatively, patients with pain are encouraged to let go of their fight against pain. It is important to note that acceptance does not mean surrender or passivity. Rather, acceptance is the willingness to see negative "feelings" and "thoughts" as just "feelings" and "thoughts," not as reality. Acceptance means accepting emotions and thoughts as experiences that happen to every human (26).

On the other hand, self-compassion, which arises from a sense of security and safety, provides a safe and healthy psychological environment. In this environment, individuals are filled with optimism, acceptance, and hope for their ability to take initiative in difficult times, both in their inner and outer worlds. As self-compassion increases, individuals believe that, like all humans, there are moments and situations they cannot overcome. Therefore, they have greater power and ability to face situations that they perceive as complex, confusing, new, or unfamiliar (27).

Self-compassion is a psychological tool that helps individuals approach and accept their inner experiences and upcoming events rather than avoiding them. Self-compassion creates a mental image of being capable and good enough, which prevents individuals from avoiding unpleasant inner and outer experiences. When individuals accept their inner experiences and ambiguous situations ahead, they have a greater ability to manage their emotions, as the mechanisms they use to regulate their emotions are more effective. These individuals are less likely to use ineffective emotion regulation methods such as worry, rumination, or negative self-talk (28). Individuals with self-compassion, unlike those with depression, exhibit a non-judgmental and less critical view of themselves and more readily accept negative life events as an unavoidable reality.

Their self-evaluations are more accurate and based on their performance, as their self-assessment is balanced and free from exaggerated self-criticism or self-superiority. This process also helps to reduce negative attitudes (29).

Among the limitations of this research are the limited population to patients referred to the comprehensive MS center of Mashhad University of Medical Sciences and the convenient sampling method. Therefore, one should be careful in generalizing the results to other groups, and it is suggested that similar research be carried out in other cities and other cultures on other people and chronic patients so that the research results can be compared. Finally, considering the effect of both treatments on reducing experiential avoidance of these people, it is suggested that therapists and counselors use the research results to reduce the problems of MS patients.

Conclusion

The results showed that compassion-focused therapy and acceptance and commitment therapy are effective interventions for reducing experiential avoidance in MS patients. Therefore, these two methods can be used to reduce the psychological problems of these patients.

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Conflict of Interests

The authors declare no conflict of interest.

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Ethical Considerations

This study results from a Ph.D. dissertation, was approved by the Islamic Azad University, Mashhad branch.

Code of Ethics

IR.IAU.MSHD.REC.1401.161

Authors' Contribution

Conceptualization: First author, Study design: All authors, Data collection: Second author, Data analysis: First author, Drafting the manuscript: First author, Final review: All authors.

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