

## Original research

**Comparison of the Effectiveness of Group Compassion-Focused Therapy (CFT) and Acceptance and Commitment Therapy (ACT) on Marital Satisfaction in Married Individuals with Relapsing-Remitting Multiple Sclerosis (RRMS)**Hosein Baratipoor,<sup>1</sup> Negar Asghari Rahmati,<sup>\*2</sup> Saeid Teymoori,<sup>3</sup> Mohammad Ali Nahayati<sup>4</sup>**Abstract**

**Introduction:** The primary aim of this study was to compare the effectiveness of group Compassion-Focused Therapy (CFT) and Acceptance and Commitment Therapy (ACT) in marital satisfaction among married individuals with relapsing-remitting Multiple Sclerosis (RRMS).

**Research Methods:** This study was an applied, quasi-experimental pre-test-post-test design with a control group. The population of the study included all patients with relapsing-remitting Multiple Sclerosis (RRMS) who referred to the Comprehensive MS Center of Mashhad University of Medical Sciences in 2023 and had a medical record. Using purposeful and convenience sampling, 24 patients who met the inclusion and exclusion criteria and had a one standard deviation lower score on the ENRICH Marital Satisfaction Questionnaire in the pre-test were selected from the population and randomly assigned to three groups of 8: Group A received group Compassion-Focused Therapy (CFT), Group B received Acceptance and Commitment Therapy (ACT), and Group C served as a control group and received no treatment. Repeated measures ANOVA was used to analyze the data.

**Findings:** The results indicated that there was a significant difference between the mean scores of both Compassion-Focused Therapy (CFT) and Acceptance and Commitment Therapy (ACT) groups compared to the control group ( $p < 0.01$ )

**Conclusion:** The findings demonstrated that both therapeutic approaches, Compassion-Focused Therapy (CFT) and Acceptance and Commitment Therapy (ACT), were effective in enhancing marital satisfaction. Therefore, it is recommended that therapists and couples therapists consider these two therapeutic approaches as effective interventions for improving marital relationships.

**Keywords:** Group compassion-focused therapy, Acceptance and Commitment Therapy (ACT), marital satisfaction, married individuals with relapsing-remitting multiple sclerosis (RRMS)

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**Introduction:**

Multiple sclerosis (MS) is one of the most common neurological diseases characterized by the involvement of multiple areas of the central nervous system. It is considered one of the most debilitating diseases of young adulthood, affecting a significant number of individuals, with women being more susceptible than men. The disease is most prevalent in individuals aged 20 to 40 (1).

MS is a progressive disease that impacts various aspects of an individual's life, disrupting normal routines and activities such as social engagement, employment, and family life, especially during prime years when these aspects are most valued (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). This disease impacts an individual's social and family life, leading to social, psychological, and physical consequences for both the patient and their family, which can sometimes be life-threatening. Marriage and marital satisfaction are negatively correlated with illness, mortality, and chronic diseases (4). MS is one of these debilitating diseases that can create significant stress for spouses, leading to marital dissatisfaction, separation, and divorce (5). Chronic illnesses are generally perceived as negative life events that can significantly alter family dynamics and interactions. Consequently, MS should be viewed as a family problem that, like other chronic illnesses, impacts all family members. Individuals with MS are more likely to experience marital difficulties compared to healthy individuals; this is because the spouse must adapt to a new role and responsibilities, often leading to an imbalance in the marital relationship. The additional burden placed on the spouse as a result of the illness can significantly impact their quality of life and the relationship. Therefore, these changes have an impact on marital satisfaction. Marital satisfaction is an attitude that can be either positive or negative and reflects an individual's evaluation of their marriage. Marital satisfaction is a process that develops over the course of a couple's lifetime and encompasses five dimensions: physical attraction, sexual attraction, understanding, perception, and investment. In reality, various factors influence how couples interact with each other throughout their lives, and these factors contribute to either marital satisfaction or dissatisfaction.

Researches indicate that marital satisfaction differs significantly between individuals with multiple sclerosis and the general population (7). Therefore, it is necessary to provide psychological interventions for these individuals in healthcare settings. One therapy that has received less attention in the psychological empowerment of couples with MS is compassion-focused therapy. Compassion-focused therapy is considered one of the newest cognitive therapies. It is a method designed to help individuals transition from a self-critical and self-defeating relationship to a more compassionate relationship with themselves. Compassion training is described as a process of facing one's own pain and suffering while cultivating a sense of self-compassion to alleviate distress (8).

Self-compassion is conceptualized as nurturing oneself against self-judgment, embracing common humanity rather than isolation, and mindfulness over identification (9). This integrative therapy draws from neuroscience, social psychology, developmental psychology, Buddhist psychology, and various other therapeutic models for mental health issues. Through this therapy, clients are assisted in cultivating or enhancing an internal compassionate relationship with themselves, replacing self-blame, self-judgment, and self-criticism. Outcomes of this therapy include valuing well-being, fostering understanding and empathy, non-judgment and non-blaming of others, and developing the capacity to tolerate distress and suffering through compassionate attention, thoughts, behaviors, imagery, feelings, and sensations (10).

Researches indicate that high levels of self-compassion are negatively correlated with depression, anxiety, neurotic perfectionism, rumination, and thought suppression (11), and positively correlated with happiness, optimism, life satisfaction, and intrinsic motivation, coping skills, resilience, and higher levels of emotional well-being (12). Self-compassion promotes a higher quality of life, life satisfaction (13); marital satisfaction (14), conflict resolution and challenge (15), marital stability (16), trust in one's spouse (17), positive and compatible romantic relationships with one's spouse (18), the longevity and stability of marital life, and positive and constructive behavior in relationships (19).

On the other hand, couples have various approaches for increasing marital satisfaction and reducing communication conflicts, one of which is Acceptance and Commitment Therapy (ACT). The goal of ACT is to help couples create a rich, full, and meaningful life. The key processes in ACT-based couples' therapy include acceptance, mindfulness, defusion, self as context, values, and committed action (20). Instead of teaching new ways to achieve marital compatibility and commitment, this approach teaches methods to reduce conflict, avoidance, and being lost in the present moment. From this perspective, compatibility and commitment mean living a rich, fulfilling, and meaningful life (16).

Acceptance and Commitment Therapy (ACT) teaches couples to approach unwanted inner thoughts and feelings, and the bodily sensations associated with these dynamics and patterns of interaction. Couples learn to mindfully accept these thoughts and feelings, and practice behaviors that consistently aim to enhance their emotional connection, intimacy, compatibility, and commitment. As couples begin to implement these skills and strategies, they become more inclined to approach previously avoided situations and are given the opportunity to behave in ways that enhance relationship satisfaction and interpersonal intimacy. Approaching thoughts and feelings associated with past avoidance and acting in alignment with shared relationship values provides couples with the opportunity to develop a stronger connection with each other, leading to increased compatibility and commitment (15). Given the significance of marital health and the impact of Multiple Sclerosis (MS) on marital relationships, this study aims to investigate the effectiveness of two therapeutic approaches in improving marital satisfaction among married individuals with relapsing-remitting MS. The research question is: Is there a difference in the effectiveness of group therapy using Compassion-Focused Therapy (CFT) compared to Acceptance and Commitment Therapy (ACT) in enhancing marital satisfaction among individuals with relapsing-remitting MS?

### **Research Method:**

This study employed a quasi-experimental design with a pre-test-post-test control group design and random assignment to groups. The population of this study consisted of all relapsing-remitting multiple sclerosis (MS) patients who referred to the Comprehensive MS Center of Mashhad University of Medical Sciences in 2023 and had a medical record. After administering the Marital Satisfaction Questionnaire, 28 married women who scored one standard deviation below the mean on the questionnaire were selected as the sample using a convenience and purposive sampling method. Four individuals declined to continue the study, leaving a sample of 24 female patients. The participants were equally divided into three groups: experimental group 1 (receiving acceptance and commitment therapy), experimental group 2 (receiving compassion-focused therapy), and a control group (receiving no intervention). The collected data were analyzed using repeated measures analysis of variance.

**Inclusion Criteria:** Female, married patients, Age range: 20-45 years, At least a high school diploma, At least 3 months since the definitive diagnosis of MS by a specialist, No substance

abuse, alcohol, or psychotropic drug use, No concurrent receipt of counseling or psychological services during the study sessions, Research Instrument:

**ENRICH Marital Satisfaction Scale:** The ENRICH marital satisfaction scale, developed by Olson, consists of 47 items and includes 12 subscales: conventional response, marital satisfaction, personality issues, marital communication, conflict resolution, financial management, leisure activities, sexual relationship, children and parenting, family and friends, equalitarian roles, and religious orientation.

In Mahdavian's study (9), the reliability of the ENRICH test was examined using Pearson's correlation coefficient and the test-retest method with a one-week interval the results were as follows: for men, 0.937; for women, 0.944; and for both men and women, 0.94 the coefficients for the subscales of idealistic distortion, marital satisfaction, personality issues, communication, conflict resolution, financial management, leisure activities, sexual relationship, children and parenting, family and friends, equalitarian roles, and religious orientation for both men and women were 0.72, 0.85, 0.76, 0.76, 0.76, 0.81, 0.63, 0.69, 0.87, 0.69, 0.62, and 0.73, respectively the reliability obtained in this study using Cronbach's alpha was 0.95.

In Mirkheshti's study (12), titled "Examining the Relationship between Marital Life Satisfaction and Mental Health," the validity of this questionnaire is discussed as follows: "in this study, the questions of the ENRICH questionnaire were retranslated some unclear and culturally inconsistent questions were removed with the guidance and consultation of the supervisor finally, 47 questions were selected from the questionnaire the questionnaires were administered to a pilot group of 30 individuals some questions were unclear, and modifications were made to them. the content validity was confirmed by the supervisors and consultants the correlation coefficient of the ENRICH questionnaire with family satisfaction scales ranged from 0.41 to 0.60, and with life satisfaction scales from 0.32 to 0.41, indicating construct validity all subscales of the ENRICH questionnaire distinguish between satisfied and dissatisfied couples, demonstrating good criterion validity.

**Acceptance and Commitment Therapy (ACT):** Therapy sessions were conducted in a format of eight 90-minute weekly sessions. A summary of the sessions is provided in the table below

**Table1:** Content of Acceptance and Commitment Therapy (ACT) sessions

Session	Content
Session 1	Getting to know the group with each other and establishing a therapeutic relationship; introducing people to the research topic; Examination of the MS disease in each person in the group, including the duration of the disease and the measures taken; Overall assessment, answering to questionnaires.
Session 2	Investigating the inner and outer world in ACT therapy, creating a desire to leave the ineffective program of change and understanding that control is the problem, not a solution, and introducing an alternative to control, i.e. desire
Session 3	Identifying people's values; statement of values; statement of goals; Declaration of actions and declaration of obstacles. Choosing a healthy relationship (motivation, desire and passion),
Session 4	Familiarity with the functioning of the mind and how to get rid of destructive thoughts of the mind, weakening expectations (not

	eliminating them), teaching conflict resolution methods. Examining the values of each person and deepening the previous concepts.
<b>Session 5</b>	Explaining cognitive fusion and diffusion, and conducting exercises for diffusion, Recognizing shared values and taking committed action, Identifying the strengths of the couples
<b>Session 6</b>	Introduction and identification of relationship barriers: disconnection, reaction, avoidance, inner mind, overlooked values (familiarity and identification of relationship barriers), understanding fusion with the conceptualized self and training on how to defuse from it
<b>Session 7</b>	Introduction to layers of cognitive fog: regrets, should and shouldn't, if only... (Understanding psychological fog), mindfulness and emphasis on being present.
<b>Session 8</b>	Choosing effective actions based on values despite unpleasant thoughts and feelings, conducting forgiveness ceremonies and oath-taking (implementing learned concepts)

**Compassion-Focused Therapy (CFT):** Therapy sessions were conducted in a format of eight 90-minute weekly sessions. A summary of the sessions is provided in the table below.

**Table2:** Content of Compassion-Focused Therapy (CFT) sessions

<b>Session</b>	<b>Content</b>
<b>Session 1</b>	Conducting the pre-test - familiarizing the therapist and group members with each other, discussing the purpose of the meetings and their overall structure, checking the expectations from the treatment plan, getting to know the general principles of compassion-focused therapy and distinguishing compassion from self-pity
<b>Session 2</b>	Explaining compassion: what compassion is and how to overcome problems through it. Mindfulness training along with physical examination and breathing exercises, familiarity with brain systems based on compassion.
<b>Session 3</b>	Familiarity with the characteristics of compassionate individuals, compassion towards others, cultivating warmth and kindness towards oneself, fostering the understanding that others also have flaws and problems (developing a sense of shared humanity) in contrast to self-destructive feelings training to increase warmth and energy, mindfulness, acceptance, wisdom and strength, warmth and non-judgment.
<b>Session 4</b>	Encouraging participants to engage in self-reflection and assess their personality as "compassionate" or "non-compassionate" based on educational discussions, identifying and applying "compassionate mind training" exercises, the value of compassion, empathy, and sympathy towards oneself and others.
<b>Session 5</b>	Training on styles and methods of expressing compassion (verbal compassion, practical compassion, situational compassion, and continuous compassion) and applying these methods in daily life.
<b>Session 6</b>	Training participants in compassion skills in the areas of compassionate attention, compassionate reasoning, compassionate behavior, compassionate imagery, compassionate feeling, and compassionate

	perception role-playing the individual in the three existential dimensions of self-critic, self-criticized, and self-compassionate using the Gestalt empty chair technique finding the tone and voice of the inner self-critic and self-compassionate during inner dialogue and its similarity to the dialogue patterns of significant people in life, such as parents.
<b>Session 7</b>	Filling out a weekly chart of critical thoughts, compassionate thoughts, and compassionate behaviors identifying the color, place, and music of the compassionate self that can be components of compassionate imagery working on the fear of self-compassion and barriers to developing this trait training in compassionate mental imagery techniques, soothing rhythmic breathing, mindfulness, and writing a compassionate letter.
<b>Session 8</b>	Summary and conclusion, addressing members' questions, evaluating all sessions, expressing gratitude to members for their participation, conducting a post-test.

### Findings:

In the tables below, descriptive and inferential analysis of the data will be conducted.

**Table 3:** Descriptive indices of marital satisfaction based on test phases and by group

Variables	Group	Pre-test		Post-test		Follow-up	
		Mean	SD	Mean	SD	Mean	SD
Marital Satisfaction	CFT	103.62	2.397	147.12	2.364	143.25	2.981
	ACT	101.63	2.343	171.00	2.436	169.12	2.279
	Control	104.25	2.455	105.25	2.040	105.00	2.666
Personality issues	CFT	13/75	1/359	19.38	1.349	18.50	1.350
	ACT	13/12	1.076	22.50	0.982	22/12	1.025
	Control	14.88	1.093	15.38	1.085	15.00	1.035
Communication	CFT	10.075	1.206	18.38	1.051	17.75	0.996
	ACT	11.88	1.156	19.62	1.164	19/12	1.141
	Control	11.75	0.726	11.50	0.802	11.38	0.905
Family and friends	CFT	10.12	1.540	19.62	1.438	19.38	1.413
	ACT	1.288	1.288	20.75	0.959	20.50	0.824
	Control	13.00	1.254	12.75	0.959	13.00	0.926
Financial management	CFT	11/12	1.156	16.88	0.859	16.38	1.017
	ACT	12/12	1.302	20.75	1.191	2.38	1.085
	Control	13.00	0.926	13.25	0.861	13.25	0.861
Leisure time	CFT	12.00	0.535	15.25	0.526	15.25	0.590
	ACT	10.38	1.133	15.62	1.051	15.38	1.281
	Control	10.00	1.341	10.45	0.854	10.25	0.996
Sexual relationship	CFT	9.62	1.224	13.88	1.586	13.50	1.570
	ACT	7.50	0.779	18/12	1.950	17.62	1.580
	Control	9.88	0.479	9.75	0.559	9.62	0.653
Children	CFT	25/12	1.114	15.25	1.146	15/12	1.060
	ACT	10.50	1.296	15/12	0.915	15.88	0.972
	Control	8.88	1.076	9.00	0.845	9.00	0.655
Conflict resolution	CFT	1.55	0.886	14.00	1.195	13.62	0.925
	ACT	10.88	0.743	2.25	0.648	20.25	0.701
	Control	11.75	1.031	12.00	1.195	11.88	1.008
	CFT	12.50	1.376	14.50	1.282	13.75	1.146

<b>Religious orientation</b>	<b>ACT</b>	13.38	0.925	18.25	1.048	17.88	0.766
	<b>Control</b>	11/12	0.896	11.62	1.101	11.62	1.034
<b>Experiential Avoidance</b>	<b>CFT</b>	36.88	1.546	27.62	2.449	27.62	2.632
	<b>ACT</b>	35.75	2.467	24.75	2.512	26/12	2.497
	<b>Control</b>	44.00	2.145	44.25	2.204	45.00	2.136

Table 3 results indicate that, in both post-test and follow-up assessments, participants in the compassion-focused therapy and acceptance and commitment therapy groups exhibited significantly higher mean scores of marital satisfaction compared to the control group. A comparison of means reveals that in both the compassion-focused therapy and acceptance and commitment therapy groups, mean scores changed from pre-test to post-test and follow-up. However, from post-test to follow-up, there was no significant change in the scores of participants in these groups.

To address the research hypothesis, a multivariate analysis of variance with repeated measures was employed. A post-hoc Bonferroni test was used to conduct pairwise comparisons across the measurement time points. The assumptions underlying this method are discussed below.

**Table 4:** Results of the Kolmogorov-Smirnov test for normality of variable distribution

<b>Variables</b>	<b>CFT</b>		<b>ACT</b>		<b>Control</b>	
	Statistic	Significance level	Statistic	Significance level	Statistic	Significance level
Marital Satisfaction	0.485	0.973	0.514	0.954	0.540	0.932
Experiential Avoidance	0.379	0.999	0.684	0.738	0.628	0.825

Table 4 results indicate that the distribution of all variables is normal across groups ( $p > 0.05$ ).

**Table 5:** Results of Levene's test for equality of variances in marital satisfaction between Compassion-Focused Therapy and Acceptance and Commitment Therapy groups.

<b>Variables</b>	<b>Pre-test</b>		<b>Post-test</b>		<b>Follow-up</b>	
	F	Significance level	F	Significance level	F	Significance level
<b>Marital Satisfaction</b>	0.212	0.810	0.114	0.892	0.164	0.850
<b>Personality issues</b>	0.698	0.509	0.424	0.660	0.152	0.860
<b>Communication</b>	2.775	0.50	1.099	0.352	0.146	0.865
<b>Family and friends</b>	0.247	0.783	2.432	0.112	3.180	0.062



<b>Financial management</b>	0.898	0.422	0.591	0.503	0.433	0.654
<b>Leisure time</b>	2.759	0.086	0.887	0.78	2.616	0.097
<b>Sexual relationship</b>	2.805	0.119	2.280	0.127	2.424	0.131
<b>Children</b>	0.790	0.467	0.475	0.628	1.330	0.286
<b>Conflict resolution</b>	1.006	0.383	2.645	0.095	0.925	0.412
<b>Religious orientation</b>	1.742	0.200	0.387	0.684	0.824	0.452

Table 4 shows that the homogeneity of variances in marital satisfaction (personal issues, marital communication, family and friends, financial management, leisure time, sexual relations, children, conflict resolution, religious orientation) was achieved. The Box's M test also indicated that the homogeneity of the variance-covariance matrix was achieved ( $p > 0.05$ ,  $F = 1.12$ , Box's  $M = 26.101$ ). Bartlett's test of sphericity indicated that there was a significant correlation in marital satisfaction (personal issues, marital communication, family and friends, financial management, leisure time, sexual relations, children, conflict resolution, religious orientation) ( $p < 0.01$ ,  $\chi^2 = 91.451$ ). The results of Mauchly's test of sphericity are presented in Table 6.

**Table 6:** Results of Mauchly's test of sphericity in the model comparing marital satisfaction between Compassion-Focused Therapy and Acceptance and Commitment Therapy groups.

Variable	Mauchly's W	$\chi^2$	df	Significance level	Greenhouse-Geisser epsilon correction
<b>Marital Satisfaction</b>	0.544	12.175	2	0.002	0.687
<b>Personality issues</b>	0.264	26.659	2	0.0001	0.576
<b>Communication</b>	0.271	26.98	2	0.0001	0.578
<b>Family and friends</b>	0.311	23.383	2	0.0001	0.592
<b>Financial management</b>	0.318	22.888	2	0.0001	0.860
<b>Leisure time</b>	0.837	3.555	2	0.169	0.611
<b>Sexual relationship</b>	0.364	20.224	2	0.001	0.722
<b>Children</b>	0.615	9.735	2	0.008	0.725
<b>Conflict resolution</b>	0.711	6.812	2	0.033	0.776
<b>Religious orientation</b>	0.706	6.952	2	0.031	0.773

Table 6 shows that the assumption of sphericity for the marital satisfaction variables (personal issues, marital communication, relatives and friends, financial management, leisure time, sexual relations, children, conflict resolution, religious orientation) was not met ( $p < 0.05$ ), and therefore, Greenhouse-Geisser epsilon correction should be used to estimate the differences in these variables. The results of the multivariate test are presented in Table 7.

**Table 7:** Results of the multivariate test to examine group differences in marital satisfaction between Compassion-Focused Therapy and Acceptance and Commitment Therapy groups.

Source of Variation	Wilk's Lambda	F	Significance level	Eta Squared
Test	0.016	26.546	0.0001	0.875
Group Membership	0.053	4.843	0.0001	0.770
Test x Group Membership	0.007	10.011	0.0001	0.713

The table above shows that Wilk's Lambda test is significant for the stages of the test, by group membership, and by the interaction between test and group membership ( $p < 0.05$ ). The results of the repeated measures (ANOVA) for dimensions of marital satisfaction (personal issues, marital communication, family and friends, financial management, leisure time, sexual relations, children, conflict resolution, religious orientation) are presented in Table 8.

**Table 8:** Results of repeated measures ANOVA for marital satisfaction in Compassion-Focused Therapy and Acceptance and Commitment Therapy groups.

Variable	Source of Variation	Sum of Squares	Degree s of Freed	Mean Square	F	Significance level	Eta Squared
Marital Satisfaction	Time	6386.674	1	6386.674	674.606	0.0001	0.910
	Within Groups						
	Group x Time	53.764	2	26.882	20.606	0.0001	0.662
	Error(time)	198.812	21	9.467			
	Between Groups						
	Group	203.1118	2	110.05619	77.172	0.0001	0.880
Personality issues	Time	130.340	1	130.430	99.911	0.0001	0.826
	Within Groups						
	Group x Time	53.764	2	26.882	20.606	0.0001	0.662
	Error(time)	27.396	21	1.305			
	Between Groups						
	Group	208.361	2	104.181	3.706	0.042	0.261
Communication	Time	119.174	1	119.174	538.686	0.0001	0.926
	Within Groups						
	Group x Time	62.347	2	31.174	5.315	0.014	0.336
	Error(time)	4.646	21	0.221			
	Between Groups						
	Group	373.444	2	186.722	7.913	0.003	0.430
	Error	495.542	21	23.597			

<b>Family and friends</b>	Within Groups	Time	150.063	1	150.063	136.942	0.0001	0.867
		Group x Time	88.042	2	44.021	40.084	0.00001	0.792
		Error(time)	23.06	21	1.098			
	Between Groups	Group	293.583	2	146.792	4.774	0.020	0.313
		Error	645.750	21	30.750			
	<b>Financial management</b>	Within Groups	Time	106.778	1	106.778	174.727	0.0001
Group x Time			53.389	2	26.694	43.682	0.0001	0.801
Error(time)			12.833	21	0.611			
Between Groups		Group	259.194	2	129.597	5.402	0.013	0.340
		Error	503.792	21	23.990			
<b>Leisure time</b>		Within Groups	Time	32.11	1	32.111	82.571	0.0001
	Group x Time		22.389	2	11.194	28.786	0.0001	0.733
	Error(t time)		8.167	21	0.389			
	Between Groups	Group	244.528	2	5.856	5.856	0.010	0.358
		Error	438.458	21	20.879			
	<b>Sexual relationship</b>	Within Groups	Time	110.250	2	110.250	50.195	0.0001
Group x Time			83.292	2	41.646	18.961	0.0001	0.644
Error(time)			46.125	21	2.196			
Between Groups		Group	262.333	2	131.167	3.963	0.035	0.274
		Error	695.000	21	33.095			
<b>Children</b>		Within Groups	Time	22.563	1	22.563	58.465	0.0001
	Group x Time		10.500	2	5.250	13.604	0.0001	0.564
	Error(time)		8.104	21	0.386			
	Between Groups	Group	411.750	2	205.875	8.724	0.002	0.454
		Error	406.208	21	19.343			
	<b>Conflict resolution</b>	Within Groups	Time	1.70/8407	1	70.840	82.171	0.0001
Group x Time			57.556	2	28.778	33.381	0.0001	0.761
Error(time)			18.104	21	0.862			
Between Groups		Group	364.778	2	182.389	9.429	0.0001	0.473
		Error	406.208	21	19.343			
			Time	32.111	1	32.111	130.516	0.0001

<b>Religious orientation</b>	Within Groups	Group x Time	0.15/056	2	7.582	30.597	0.0001	0.745
		Error(time)	5.167	21	0.246			
	Between Groups	Group	307.528	2	153.764	9.429	0.001	0.473
		Error	568.485	21	27.069			

Table 8 indicates that there is a significant difference ( $p < 0.01$ ) in marital satisfaction (personal issues, marital communication, family and friends, financial management, leisure time, sexual relations, children, conflict resolution, religious orientation) between the Compassion-Focused Therapy and Acceptance and Commitment Therapy groups, based on the test and the interaction effect of test and group membership, as well as between-group membership. Repeated measures ANOVA results showed that for the variables of marital satisfaction (personal issues, marital communication, relatives and friends, financial management, leisure time, sexual relations, children, conflict resolution), there was a significant interaction between time and group ( $p < 0.1$ ), indicating differences in marital satisfaction between the experimental groups (two therapy groups) and the control group across the different dimensions of marital satisfaction. Eta squared values for the variables exceeded 0.10, suggesting a substantial effect size. Post-hoc comparisons using the Bonferroni test to compare means across time points and groups are presented in Table 9.

**Table 9:** Bonferroni post-hoc comparisons of mean marital satisfaction across time points in Compassion-Focused Therapy and Acceptance and Commitment Therapy groups.

Variables	Baseline group & Comparison group	Mean difference	p
<b>Marital Satisfaction</b>	CFT & ACT	-15.917	0.0001
	CFT & Control	26.500	0.0001
	ACT & Control	42.417	0.0001
<b>Personality issues</b>	CFT vs ACT	-2.042	0.589
	CFT & Control	2.125	0.539
	ACT & Control	4.167	0.038
<b>Communication</b>	CFT & ACT	-1.250	1.000
	CFT & Control	4.083	0.025
	ACT & Control	5.333	0.003
<b>Family and friends</b>	CFT & ACT	-1.333	1.000

	CFT & Control	3.458	0.127
	ACT & Control	4.792	0.02
<b>Financial management</b>	CFT & ACT	-2.958	0.146
	CFT & Control	1.625	0.790
	ACT & Control	4.583	0.012
<b>Leisure time</b>	CFT & ACT	0.375	1.000
	CFT & Control	4.083	0.016
	ACT & Control	3.708	0.031
<b>Sexual relationship</b>	CFT & ACT	-2.803	0.670
	CFT & Control	2.583	0.404
	ACT & Control	4.667	0.031
<b>Children</b>	CFT & ACT	0.375	1.000
	CFT & Control	5.250	0.004
	ACT & Control	4.875	0.007
<b>Conflict resolution</b>	CFT & ACT	-4.083	0.012
	CFT & Control	1.167	1.000
	ACT & Control	5.250	0.001
<b>Religious orientation</b>	CFT & ACT	-2.197	0.197
	CFT & Control	2.125	0.515
	ACT & Control	5.042	0.009

Table 9 indicates that pairwise comparisons revealed significant differences in mean marital satisfaction scores between the compassion-focused therapy group and the control group for the dimensions of marital communication, leisure time, and children. Similarly, the acceptance and commitment therapy group showed significant differences compared to the control group for a broader range of marital satisfaction dimensions, including personal issues, marital communication, relationships with family and friends, financial management, leisure time, sexual relations, children, conflict resolution, and religious orientation. Additionally, there was a significant difference between the two therapy groups in overall marital satisfaction and conflict resolution. It is worth noting that while not reaching statistical significance at the 95% confidence level, the acceptance and commitment therapy appeared to have a larger effect size compared to compassion-focused therapy for the remaining variables.

### **Discussion and Conclusion:**

This study aimed to compare the effectiveness of group Compassion-Focused Therapy (CFT) and Acceptance and Commitment Therapy (ACT) in enhancing marital satisfaction among married individuals with relapsing-remitting multiple sclerosis. The results indicated that both therapies were effective in increasing marital satisfaction, however, Acceptance and Commitment Therapy demonstrated a more significant impact compared to Compassion-Focused Therapy. These findings are consistent with previous research (21, 22, 23, 24, 25, 26).

Self-compassion appears to enhance not only intrapersonal functioning but also interpersonal functioning. Individuals high in self-compassion were described by their partners as feeling more connected, accepted, and independently supported, while being less detached, controlling, and verbally or physically aggressive compared to those low in self-compassion. Moreover, self-compassion was significantly correlated with forgiveness (27). Forgiving others requires a broad understanding of the complex array of causes and conditions that lead people to act as they do. It is the ability to forgive and accept a person's inherent imperfection, and thus seems to extend to others as well.

Self-compassion was found to be significantly, but weakly, correlated with compassion for others, empathic concern, and altruism in the community and Buddhist samples. This correlation was not as strong as expected, perhaps due to the fact that most individuals reported being kinder to others than to themselves. Interestingly, no correlation was found between self-compassion and other-oriented concern (e.g., benevolence, empathic concern, altruism) among students. This may be because young people often strive to recognize commonalities in their life experiences and exaggerate their differences from others. Their schemas for why they deserve care and why others deserve care may thus have a weak integrative tendency. The correlation between self-compassion and other-oriented concern was strongest among meditators, which may be a result of practices such as loving-kindness meditation that intentionally cultivate compassion for both self and others (9).

Research also suggests that the degree to which individuals are kind to themselves is correlated with how kind they are to their partners; self-compassionate individuals establish better relationship quality with their partners, demonstrate higher acceptance of their spouses, and report greater marital satisfaction. Self-compassion toward oneself and others is more prevalent in women than men. Moreover, self-compassion in women, in addition to being associated with higher motivation, leads to the correction of interpersonal mistakes and is linked to numerous positive psychological outcomes such as increased motivation to resolve personal conflicts, constructive social interactions, optimism, adaptability, and intimacy between couples, enhanced mental health, relationship longevity and stability, adoption of adaptive emotion regulation strategies in romantic relationships, and increased resilience (24).

From an Acceptance and Commitment Therapy (ACT) perspective, the root of conflicts and emotional distance within couples stems from a combination of rigid and futile attempts by each partner to control

the other, coupled with experiential avoidance strategies within the relationship. The act of taking negative thoughts and evaluations at face value and acting upon them perpetuates a negative relationship cycle. ACT seeks to undermine these processes, thereby reducing unnecessary suffering experienced by couples due to their experiential avoidance. The primary goal of the acceptance and commitment approach is to help each partner become aware of their negative cognitive processes and emotional reactions, both when alone and within the relationship, and to clarify the values that keep them together. It encourages committed action, as committed behavior is aligned with values, leading to increased positive reinforcement and improved long-term quality of life.

Couples often avoid situations associated with hurt, rejection, or conflict. Acceptance and Commitment Therapy (ACT) encourages couples to accept unwanted internal thoughts, feelings, and physical sensations related to these dynamics and patterns of interaction. It is evident that when one partner feels emotionally hurt, they tend to withdraw emotionally from the relationship. Although emotional distance may offer short-term protection, it can cause long-term damage. Acceptance and Commitment Therapy involves learning the skill of mindful acceptance of such thoughts and acting in ways that enhance the couple's connection and emotional intimacy. In summary, the interventions in Acceptance and Commitment Therapy help couples resolve conflicts, initiate new and positive communication patterns, strive for greater intimacy in their relationship, and ultimately experience more harmonious and satisfying relationships. Therefore, the common mechanism of effectiveness of both approaches is to improve interpersonal relationships by modifying individuals' thoughts and emotions, increasing self-acceptance and acceptance of others, fostering empathy and intimacy, and reducing marital tension and conflict, ultimately leading to increased marital satisfaction.

**Limitation:** One limitation of this study is the restricted nature of the research population, which is limited to patients visiting the Comprehensive MS Center at Mashhad University of Medical Sciences. The sampling method used also poses limitations. Therefore, caution should be exercised when generalizing the results to other groups. It is recommended that similar studies be conducted in other cities and cultures on other individuals and chronic patients to allow for comparison of research findings. Additionally, the limitations in selecting the sample group, considering certain psychological variables (such as participants' knowledge and attitudes about therapeutic interventions, their expectations, and psychological mindset) and demographic variables (such as education level and socioeconomic status), represent another limitation of this study. Therefore, it is suggested that similar studies be conducted in other cities and cultures on other individuals and chronic patients to allow for comparison of research findings. Finally, considering the positive impact of both therapies on the marital satisfaction of these individuals, it is recommended that therapists and counselors utilize the findings of this study in addressing marital conflicts and the challenges faced by MS patients.

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**Ethical Considerations:** Ethical considerations for this study included providing written information to participants about the research, assuring participants of the confidentiality of their data and its use solely for research purposes, ensuring voluntary participation, and obtaining written informed consent from all participants.

It is worth noting that ethical approval with the code IR.IAU.MSHD.REC.1401.161 was obtained to conduct this research.

**Conflict of Interest:** The authors declare that this work is the result of independent research and that there are no conflicts of interest with any other organizations or individuals.

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