

Comparison of the Effectiveness of Cognitive Behavioral Therapy and Compassion-Focused Therapy in Improving Rumination and Enhancing Emotional Regulation in Women with the Experience of Marital Infidelity

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ABSTRACT

Objective: One of the harms that put families at risk of disintegration is the phenomenon of marital infidelity. The present study compared the effectiveness of cognitive behavioral therapy and compassion-focused therapy in improving rumination and enhancing emotional regulation in women who have experienced marital infidelity.

Materials and Methods: This was a quasi-experimental study with a pre-test-post-test-follow-up design and a control group. The study population included women with experiences of marital infidelity, who sought help from counseling and psychotherapy centers and clinics in Tehran in the year 2021. From the mentioned population, 45 women with experiences of marital infidelity were selected based on the entry criteria of the study and were randomly assigned to two experimental groups and one control group (each group consisting of 15 individuals). The first experimental group received cognitive behavioral therapy intervention, and the second group underwent compassion-based therapy. The control group did not receive any intervention. Data were collected using the Garnefski and Kraaij Cognitive Emotion Regulation Questionnaire (2006) and the Nolen-Hoeksema et al. Ruminative Responses Scale (1999). Data were analyzed using the analysis of variance with repeated measures and SPSS software version 22.

Findings: The results showed that emotional regulation in both the cognitive-behavioral and compassion therapy groups was higher at the post-test stage than at the pre-test, and the scores of rumination in the two groups were lower at the post-test stage than at the pre-test ($p < 0.01$). Also, the comparison of the two experimental groups showed that the scores of emotional regulation and rumination variables in both cognitive-behavioral and compassion therapy groups significantly differed from each other ($p < 0.01$).

Conclusion: It can be concluded that cognitive-behavioral therapy had a greater impact on improving emotional regulation and rumination in women compared to compassion-focused therapy.

Keywords: Cognitive Behavioral Therapy, Compassion-Focused Therapy, Rumination, Emotional Regulation, Women, Marital Infidelity.

1. Introduction

One of the damages that puts families at risk of disintegration is the phenomenon of marital infidelity. Marital infidelity is a subject that couple therapists frequently encounter in their clinics and is one of the most difficult treatments and the second most destructive problem for marital relationships (Heidari Mamadi & Vaziri Yazdi, 2019). Marital infidelity refers to any form of sexual or emotional relationship that goes beyond the committed relationship between spouses. It is one of the most significant damaging factors for couples and families, as well as a common phenomenon for therapists in the field of family and marriage. It has a substantial impact on the spouse who is the victim of infidelity. Factors related to marital infidelity fall into three categories: individual differences (such as personality traits and attitudes), the nature of the relationship (such as satisfaction and commitment level), and environmental conditions (such as the attractiveness of the third party or the opportunity for infidelity) (Alexopoulos, 2021). Moreover, the spouse who has been cheated on faces many damages, and addressing these damages and finding optimal solutions to reduce the severity of the resulting effects is important. Rumination, self-criticism, self and others blame, distress, and experiencing high levels of stress and depression are among the unpleasant internal states of a spouse who has been hurt (Koessler et al., 2022).

Typically, these individuals show different emotional reactions ranging from shock and sadness to anger and hatred towards their partner after encountering such an event and quickly begin to confront themselves. It has been shown that affected individuals experience a decrease in self-esteem and engage in many negative thoughts in the form of rumination. Rumination is associated with non-beneficial self-monitoring tendencies. The lack of ability to direct attention leads to several common problems, including the inability to stop thinking about the past, the future, or current problems, and the inability to focus on important tasks. This condition is a combination of persistent thinking in the form of rumination and worry in ineffective coping behaviors such as avoidance (Cook et al., 2019). Rumination is thoughts and behaviors that repeatedly focus a person's attention on their negative feelings and also on the nature and implicit concepts of these feelings, including the reasons, concepts, and consequences of these feelings. Nolen-Hoeksema defines rumination as a person's non-functional concentration on a negative emotional state similar to

depression and its symptoms and repetitive thoughts about the reasons, concepts, and consequences of depression (Aslanifar et al., 2019).

Emotional regulation is an external and internal process responsible for reviewing, evaluating, and modifying emotional responses, especially in terms of intensity and duration, to achieve a goal (McComb & Mills, 2021). Emotional regulation is a process through which individuals are affected by emotion, especially the timing and manner of that emotion and how it is expressed and experienced (Strauss et al., 2019). Some also define emotional regulation as the process of creating, maintaining, modifying, and changing the occurrence, intensity, or duration of internal feelings and associated motivations and psychological processes, often to achieve a goal (Weiss et al., 2018). Inability to manage emotions leads to a decrease in compassion towards oneself and others and experiencing psychological distress in the form of stress, anxiety, and depression (Elhai et al., 2018).

On this basis, the creation and application of interventions capable of improving rumination and emotional regulation in the spouse who has been hurt are considered in reducing the negative effects and consequences. The present study compared the effectiveness of cognitive-behavioral therapy and compassion-focused therapy in improving rumination and enhancing emotional regulation in women who have experienced marital infidelity from their spouse.

2. Methods and Materials

2.1. Study design and Participant

The present research was a quasi-experimental study with a pre-test-post-test-follow-up design and a control group. The research population included women who had experienced infidelity from their spouse, who sought help from counseling and psychotherapy centers and clinics in Tehran in the year 2021. From the mentioned population, 45 women with experiences of marital infidelity were selected based on the entry and exit criteria of the study and were randomly assigned to two experimental groups and one control group (each group consisting of 15 individuals). The first experimental group received cognitive-behavioral therapy intervention, and the second group underwent compassion-based therapy. The control group did not receive any intervention. Participants were asked to respond to questionnaires in three stages: before the start of the intervention sessions, after their completion, and two months after. The sampling method in the first stage was based on

targeted sampling, and from among women with experiences of marital infidelity who sought help from counseling and psychotherapy centers and clinics in Tehran in the year 2021, 45 individuals were selected based on entry and exit criteria. The sample size was determined based on the following formula with an accuracy of 0.05, study power of 80%, and a confidence level of 0.95, resulting in 20 individuals for each group. Entry criteria included women with experiences of marital infidelity from their spouse, a minimum education level of high school diploma, age over 20 years, and no acute physical and mental illness or history of substance addiction. Exit criteria included absence from more than two therapy sessions and lack of desire to continue participating in the sessions.

Ethical considerations in this research were such that participation was entirely voluntary. Before the start of the project, participants were familiarized with the details and regulations of the plan. Respect was given to individuals' attitudes and beliefs. Members of both the experimental and control groups were allowed to withdraw from the research at any stage. Additionally, members of the control group could receive the same intervention as the experimental group in similar therapy sessions after the completion of the project, if interested. All documents, questionnaires, and confidential records were exclusively accessible to the researchers. Informed written consent was obtained from all volunteers.

2.2. Measures

2.2.1. Cognitive Emotion Regulation

Cognitive Emotion Regulation Questionnaire was developed by Garnefski and Kraaij in 2006 to examine cognitive emotion regulation. It is an 18-item instrument measuring cognitive emotion regulation strategies in response to threatening and stressful life events on a five-point scale from never (1) to always (5). It comprises nine subscales: self-blame; blaming others; rumination; catastrophizing; putting into perspective; positive refocusing; positive reappraisal; acceptance; and refocusing on planning. The minimum and maximum scores on each subscale are respectively 6 and 10, with higher scores indicating greater use of that cognitive strategy. Each question is scored from one to five. The score for each of the nine subscales is calculated by summing the scores of the relevant questions (Besharat et al., 2020).

2.2.2. Rumination

Ruminative Responses Scale, developed by Nolen-Hoeksema and colleagues in 1999, this 22-item scale is scored on a four-point Likert scale from never (1) to always (4). The minimum and maximum scores on this scale are 22 and 88, respectively, with higher scores indicating greater ruminative responses in stressful situations. Empirical evidence suggests high internal reliability for the Ruminative Responses Scale. Cronbach's alpha coefficients range from 0.88 to 0.69, and the test-retest reliability coefficient is reported to be 0.61. In a sample of students, a Cronbach's alpha of 0.88 was obtained, and a significant positive correlation was reported between ruminative responses and anxiety and depression. Various studies have demonstrated the test-retest reliability of the Ruminative Responses Scale to be 0.67, and its predictive validity has been tested in numerous studies (Mehraban et al., 2022; Watkins & Nolen-Hoeksema, 2014).

2.3. Intervention

2.3.1. Compassion-Focused Therapy

The therapeutic model used in this treatment was generally based on the treatment package by Gilbert (2009) (Gilbert, 2009). The therapy sessions consisted of 8 group sessions, once a week, lasting 90 minutes each.

2.3.2. Cognitive-Behavioral Therapy

The process of cognitive-behavioral therapy was conducted in 8 group sessions of 90 minutes each, based on the protocol by Hazlett-Stevens (2008) (Hazlett-Stevens, 2008).

2.4. Data Analysis

Descriptive data analysis included statistical indicators for each of the research variables. In the inferential statistics section, repeated measures analysis of variance and SPSS-22 software were used.

3. Findings and Results

The majority of the population in the first experimental group was in the age range of 20-30 years with 7 participants (46.66%), in the second experimental group 6 participants (40%) were in the age range of 31 to 40 years, and in the control group 7 participants (46.66%) were over 46 years old. The highest educational level in the first experimental

group was diploma with 7 participants (46.66%), in the second experimental group 12 participants had higher diploma and bachelor's degrees (66.66%), and in the control group 7 participants (46.66%) had diploma or lower.

Descriptive indices for the variables of emotion regulation and rumination, separated by the three groups, are presented in Table 1.

Table 1

Descriptive Statistics

Variable	Group	Pre-test		Post-test		Follow-up	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
Emotion Regulation	Cognitive-Behavioral	51.20	12.93	66.93	15.51	65.75	15.10
	Compassion Therapy	50.26	12.87	56.50	12.61	57.30	12.77
	Control	49.45	10.61	49.30	10.63	50.25	11.21
Rumination	Cognitive-Behavioral	77.20	5.66	33.40	5.33	35.20	4.97
	Compassion Therapy	76.60	5.52	59.45	6.12	58.35	5.74
	Control	75.40	5.04	75.10	5.02	75.44	5.26

To assess the significance of differences between the scores of emotion regulation and rumination in the two

experimental groups and the control group, repeated measures analysis of variance was used.

Table 2

The Results of Assumptions

Variable	Group	Kolmogorov-Smirnov		Levene's Test		Mauchly's Test	
		Degrees of Freedom	Statistic	Degrees of Freedom	Statistic	Statistic	p
Emotion Regulation	Cognitive-Behavioral	15	0.638	40	1.50	3.15	0.84
	Compassion Therapy	15	0.592				
	Control	15	0.618				
Rumination	Cognitive-Behavioral	15	0.821	40	2.33	2.69	0.91
	Compassion Therapy	15	1.12				
	Control	15	0.781				

The results of the Kolmogorov-Smirnov test for the research variables indicated the normality of the data. The homogeneity of variance assumption tested by Levene's test in the experimental and control groups indicated equal variances of the research variables in the pre-test, post-test,

and follow-up stages. Additionally, the results of the Mauchly's test of sphericity indicated a lack of equality in the covariance matrix among groups and the necessity of using the more conservative Greenhouse-Geisser test.

Table 3

Repeated Measures Analysis of Variance for Comparing Pre-test, Post-test, and Follow-up of Emotion Regulation and Rumination in Experimental and Control Groups

Scale	Source of Effect	SS	Df	MS	F-value	p	Eta Squared
Emotion Regulation	Time	119.46	1.13	92.71	148.15	0.001	0.84
	Time * Group	93.95	2.26	72.91	116.52	0.001	0.80
	Group	481.911	2	240.956	26.282	0.001	0.55
Rumination	Time	400.08	1.13	296.70	261.46	0.001	0.90
	Time * Group	277.06	2.26	205.46	181.07	0.001	0.86
	Group	260.10	2	260.10	44.93	0.001	0.35

The results in Table 3 indicate that the analysis of variance for the within-group factor (time) is significant, as is the between-group factor. This means that considering the group effect, the time effect is also significant on its own.

Additionally, the interaction of group and time is significant. Moreover, the Bonferroni post-hoc test was used for pairwise comparisons of the groups.

Table 4*Bonferroni Post-hoc Test Results for Comparing Emotion Regulation and Rumination*

Variable	Group 1	Group 2	Mean Difference	p
Emotion Regulation	Cognitive-Behavioral	Compassion Therapy	10.43	0.001
	Cognitive-Behavioral	Control	17.63	0.001
	Compassion Therapy	Control	7.20	0.001
Rumination	Cognitive-Behavioral	Compassion Therapy	-26.05	0.001
	Cognitive-Behavioral	Control	-41.70	0.001
	Compassion Therapy	Control	-15.65	0.001

The results in Table 4 show that emotion regulation in both the cognitive-behavioral and compassion therapy groups was higher in the post-test stage compared to the pre-test, and the scores of rumination in both groups were lower in the post-test stage compared to the pre-test ($p < 0.01$). Also, the comparison of the two experimental groups showed that the scores of emotion regulation and rumination variables in both the cognitive-behavioral and compassion therapy groups significantly differed from each other ($p < 0.05$), indicating that cognitive-behavioral therapy had a greater impact on improving emotion regulation and rumination in women compared to compassion-focused therapy.

4. Discussion and Conclusion

The current study compared the effectiveness of cognitive-behavioral therapy (CBT) and compassion-focused therapy (CFT) in improving rumination and enhancing emotional regulation in women who have experienced marital infidelity. It can be said that both cognitive-behavioral and compassion-focused therapy groups were effective in terms of emotional regulation, but CBT had a higher impact compared to CFT in improving women's emotional regulation. This finding is consistent with the previous research (Alexopoulos, 2021; Babaei et al., 2020; Brophy et al., 2020; Cheng et al., 2020; Cook et al., 2019; Dashtbozorgi, 2018; Elhai et al., 2018; Farnoush et al., 2020; Frostadottir & Dorjee, 2019; Irons & Lad, 2017; Koessler et al., 2022; Strauss et al., 2019; Weiss et al., 2018).

CBT is a therapeutic approach that focuses on improving unhealthy behavioral patterns, attitudes, and beliefs that may cause negative emotions and psychological issues. It employs various strategies, including stress management, positive thinking, and altering ineffective behavioral patterns in interaction with the environment, to reduce the negative impact of these patterns on emotions. CBT can be a powerful tool for improving emotional regulation in

women who have experienced infidelity. It focuses on improving behavioral patterns, attitudes, and beliefs that may cause negative emotions and psychological issues. One of the strategies of CBT is the analysis and alteration of thoughts and attitudes. By examining how one responds to infidelity and reinterpreting ideas and beliefs that may arise from it, one can achieve significant improvement in emotional regulation and feelings (Strauss et al., 2019). Furthermore, CBT can help in learning new skills for stress and emotional management. By learning positive thinking techniques and cognitive awareness skills, one can focus on changing behaviors and gradually improve emotional regulation. Overall, CBT is an effective therapeutic method that combines behavioral change, positive thinking, and stress management to help improve emotional regulation and relationships. Using various CBT methods, one can change ineffective behavioral patterns in interaction with the environment and reduce their negative impact on emotions. This might include stress management, positive thinking, focusing on strengths, and healthy interactions with others. By changing these patterns, one can enhance the skills needed to manage emotions and improve emotional regulation (Baeken et al., 2021).

Compassion-focused therapy also emphasizes strengthening and developing compassion and self-therapy. This method, through contemplation of self-compassion and practicing compassion exercises, strives to establish better relationships with oneself and others and enhance skills for managing emotions. This therapy can significantly improve self-image, self-esteem, and emotional regulation in women who have experienced infidelity. Compassion therapy can have a significant impact on the emotional regulation of women who have experienced infidelity from their spouse (Babaei et al., 2020). This therapeutic approach emphasizes that by creating and increasing self-compassion, one can manage painful experiences and negative emotions. Compassion therapy helps individuals to develop a different perspective towards their painful experiences with a deep

understanding. It allows showing kindness to oneself, accepting negative emotions, and starting the healing process (Frostadottir & Dorjee, 2019). This therapy, focusing on mindfulness, living in the present moment, and accepting emotions, leads towards a spiritually-oriented lifestyle. Additionally, compassion therapy can help identify and change inefficient behavioral patterns. By discovering and altering negative and harmful beliefs about oneself and others, one can learn new skills for managing emotions and regulating relationships by changing ineffective and problematic behaviors that may have arisen from the experience of infidelity. Overall, compassion therapy, by emphasizing the creation of compassion towards oneself and others, can help confront painful experiences associated with infidelity and enhance the ability to improve emotional regulation and relationships (Dashtbozorgi, 2018; Irons & Lad, 2017).

It can be said that both cognitive-behavioral and compassion-focused therapy groups were effective in terms of rumination, but CBT had a higher impact compared to CFT in improving women's rumination. This finding aligns with the previous research (Ahmadboukani et al., 2022; Andalib et al., 2020; Baeken et al., 2021; Carlucci et al., 2018; Cheng et al., 2020; Frostadottir & Dorjee, 2019; Khedri et al., 2022; Murray et al., 2021; Pugach et al., 2020; Ruscio et al., 2015).

CBT and CFT are two therapeutic methods that impact how women with experiences of marital infidelity interact with rumination, but in different ways. CBT helps women to have a better understanding of rumination and its impact on their feelings and behaviors. This method focuses on the principle that the rumination experienced by women due to infidelity is due to incorrect beliefs and thoughts. CBT can familiarize women with positive ways to deal with rumination. This might include exercises in changing attitudes, identifying and correcting negative thoughts, stress management practices, and behavior change exercises. CBT can help women who have experienced infidelity from their spouse in reducing rumination. Rumination is related to negative and self-destructive thoughts about oneself and the situation of spousal infidelity, which might include feelings of upset, distrust in oneself and others, anxiety, fear, and increased stress (Baeken et al., 2021; Carlucci et al., 2018). CBT operates on the principle that thoughts, feelings, and behaviors are interconnected, and a change in one can lead to positive changes in others (Baeken et al., 2021). In this therapeutic approach, individuals try to change their negative thought and behavioral patterns using situational

analysis and self-teaching coping skills. Cognitive-behavioral therapists assist the patient in the process of identifying and changing negative thoughts. For example, they can help women to identify incorrect and negative beliefs they might have developed about themselves and their relationship after infidelity and then change them in a positive and constructive manner. Moreover, teaching coping skills and using various strategies to manage negative thoughts and feelings is also part of CBT methods (Frostadottir & Dorjee, 2019).

5. Limitations and Suggestions

In evaluating the increase in emotional regulation, most subscales of the questionnaire assessed poor emotional regulation; therefore, in testing the research hypothesis, instead of examining emotional regulation, the focus was on reducing poor emotional regulation to answer the question of increased emotional regulation. The results of the research may not be generalizable to other statistical populations, as it was limited to women who had experienced infidelity, and the prevalence of the coronavirus pandemic disrupted the collection of information from applicants. Due to the coronavirus pandemic and the onset of a new peak, it was not possible to hold a follow-up period. It is suggested that the present research be conducted in men as well, as individuals of different genders have different personality and instinctual characteristics, and therefore, by recognizing these differences, preventive measures can be taken more quickly in case of problems. It is suggested that the present research be repeated in other provinces, as the results of the current research conducted in Tehran province may be influenced by lifestyles affected by living in Tehran, where people have many preoccupations and less free time. Therefore, the implementation of research in other provinces and cities may differ from the result of the current research. It is suggested that other methods such as interviews with psychology professors and counselors of patients and officials of treatment centers be used to collect data; because, there is a possibility of personal biases of respondents in filling out questionnaires.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Authors' Contributions

Parisa Karami contributed to the conceptualization and design of the research, participant recruitment, data collection, and the implementation of cognitive-behavioral therapy. Mohammad Hassan Ghanifar played a key role in the design and implementation of compassion-focused

therapy, data analysis, and interpretation of the results. Ghasem Ahi was involved in the overall supervision of the study, manuscript preparation, and final review. All authors reviewed and approved the final manuscript for publication.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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