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Comparative Effectiveness of Compassion-Focused Therapy (CFT) and Metacognitive Therapy (MCT) on Experiential Avoidance and Rumination in Women with Major Depressive Disorder

Zahra. Ghorbani[1*]

[1] MA, Department of Educational Psychology, Ta.C., Islamic Azad University, Tabriz, Iran

*** Corresponding author email address**: zahraghorbani.tl2025@gmail.com

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A B S T R A C T

Purpose: This study aimed to compare the effectiveness of Compassion-Focused Therapy (CFT) and Metacognitive Therapy (MCT) in reducing experiential avoidance and rumination among women diagnosed with major depressive disorder.

Methods and Materials: This quasi-experimental study employed a pretest–posttest design with a three-month follow-up and a control group. The statistical population consisted of women with major depressive disorder who attended comprehensive health service centers and psychological clinics in Tabriz, Iran, in 2026. Using purposive sampling, 45 eligible women diagnosed through the Structured Clinical Interview for DSM Disorders (SCID) were selected and randomly assigned to three groups of 15 participants: CFT, MCT, and control. Data were collected using the Beck Depression Inventory-II (BDI-II), Acceptance and Action Questionnaire-II (AAQ-II), and Ruminative Responses Scale (RRS). The CFT group received eight 90-minute sessions of compassion-focused therapy, while the MCT group received eight 90-minute sessions of metacognitive therapy. The control group remained on a waiting list. Data were analyzed using repeated-measures analysis of variance and Bonferroni post hoc tests at a significance level of .05.

Findings: Repeated-measures analysis showed significant effects of time, group, and the time × group interaction on both experiential avoidance and rumination. Bonferroni post hoc comparisons indicated that both CFT and MCT produced significantly greater reductions in experiential avoidance and rumination than the control condition at posttest and three-month follow-up. Moreover, comparisons between the two intervention groups demonstrated that CFT resulted in significantly greater and more sustained reductions in both experiential avoidance and rumination than MCT, indicating superior maintenance of therapeutic gains over the follow-up period.

Conclusion: Both CFT and MCT appear effective for addressing cognitive and emotional processes associated with major depressive disorder; however, CFT demonstrated greater and more persistent effects on experiential avoidance and rumination. By targeting shame, self-criticism, and self-blame while cultivating self-compassion and internal safeness, CFT may offer particular advantages for women with major depressive disorder and may be considered a potentially preferable intervention for achieving sustained psychological improvement.

Keywords: *Compassion-Focused Therapy; Metacognitive Therapy; Experiential Avoidance; Rumination; Major Depressive Disorder; Women*

1. Introduction

Major depressive disorder (MDD) is a prevalent and disabling psychiatric disorder characterized by persistent depressed mood, diminished interest or pleasure, cognitive disturbances, somatic symptoms, and substantial impairment in interpersonal, occupational, and social functioning. Beyond the acute burden of depressive episodes, MDD is clinically important because of its recurrent course, heterogeneity, frequent comorbidity, and substantial risk of chronicity. Contemporary accounts increasingly conceptualize depression as a multidimensional disorder arising from interactions among biological vulnerability, cognitive-affective processes, environmental stressors, and behavioral patterns rather than as the consequence of a single etiological mechanism (Marx et al., 2023). Consistent with this multidimensional perspective, recent biomarker research has identified a range of brain- and blood-based correlates that may contribute to the biological characterization of MDD, although no single biomarker currently captures the complexity of the disorder (Zallar & Dupont, 2026). Similarly, evidence regarding shared systemic immune signatures between MDD and inflammatory conditions further demonstrates that depressive pathology may involve interconnected neurobiological and systemic processes (He et al., 2026). Nevertheless, despite advances in understanding its biological substrates, psychological mechanisms remain central to explaining why depressive distress is initiated, maintained, and repeatedly reactivated in many individuals.

Among psychological mechanisms associated with the persistence of depression, repetitive negative thinking has received particular attention. Rumination is generally defined as a repetitive and relatively passive pattern of thinking in which individuals repeatedly focus on the causes, meanings, and consequences of distress without moving effectively toward problem solving. In depression, rumination may prolong negative affect, reinforce pessimistic interpretations, impair cognitive flexibility, interfere with adaptive coping, and increase the accessibility of mood-congruent memories. Recent findings further suggest that rumination is not merely an epiphenomenon of depressive symptoms but may constitute an important mechanism through which earlier adverse experiences influence the severity of MDD. For example, rumination has been identified as a mediator of the relationship between childhood trauma and the severity of major depressive symptoms (Yalım et al., 2026). Interpersonal forms of repetitive negative processing may also contribute to vulnerability; co-rumination with peers has been associated with increased risk for depressive outcomes among offspring of mothers with MDD (Lind & Gibb, 2026). At the neurobiological level, emerging evidence indicates that distinct forms of rumination may be associated with specific alterations in large-scale brain networks among individuals with MDD, further supporting the clinical relevance of rumination as a treatment target (Cai et al., 2026).

Rumination is particularly problematic because its apparent purpose often differs from its actual psychological consequences. Individuals may engage in repetitive analysis because they believe that repeatedly thinking about problems will help them understand their distress, prevent future mistakes, gain certainty, or find solutions. In practice, however, prolonged repetitive negative thinking frequently maintains attention on threat, loss, failure, guilt, and self-criticism. This process can intensify negative emotional states and reduce engagement in adaptive behavior. Research across different populations has demonstrated that rumination is intertwined with multiple forms of emotional distress. For instance, rumination and experiential avoidance have been implicated in guilt-related distress in bereavement (Alves & Neto, 2026), while rumination has also emerged as a relevant psychological mechanism in studies examining trauma-related symptoms and psychological inflexibility (Emmanuel & Jide-Ojo, 2026). These findings suggest that rumination is best understood as a transdiagnostic process that can operate across diverse forms of psychopathology but is especially salient in depressive disorders because of its close relationship with self-evaluation, hopelessness, and persistent negative affect.

A second process that may contribute to the maintenance of depressive symptoms is experiential avoidance. Experiential avoidance refers to an unwillingness to remain in contact with unwanted internal experiences—including distressing emotions, thoughts, memories, bodily sensations, and urges—and to efforts to alter, suppress, escape, or control such experiences even when these efforts create longer-term psychological costs. Although avoidance can provide short-term relief, persistent experiential avoidance may narrow behavioral repertoires, reinforce the perceived dangerousness of internal experiences, diminish psychological flexibility, and interfere with engagement in personally meaningful activities. Its clinical relevance is supported by evidence connecting experiential avoidance with multiple maladaptive outcomes. Recent research has demonstrated associations between experiential avoidance

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and problematic behavioral patterns such as psychoactive substance use (Sequeda et al., 2026) and smartphone addiction among adolescents (Song et al., 2026). In trauma-exposed populations, emotional avoidance and broader psychological inflexibility have likewise been identified among predictors of posttraumatic stress symptoms (Emmanuel & Jide-Ojo, 2026). Such findings support the view that experiential avoidance represents a broad vulnerability process that can perpetuate distress across diagnostic categories.

Experiential avoidance and rumination may also reinforce one another. When individuals experience distressing thoughts or emotions as unacceptable or intolerable, they may attempt to understand, control, neutralize, or escape these experiences through repetitive thinking. Rumination can therefore function partly as a cognitive avoidance strategy: attention becomes absorbed in abstract analysis rather than direct, flexible contact with emotional experience. Conversely, repeated unsuccessful efforts to control internal states may strengthen the belief that thoughts and emotions are dangerous, uncontrollable, or personally meaningful, thereby promoting further rumination. Evidence supporting this functional connection has emerged across clinical and nonclinical contexts. Experiential avoidance has been found to play a mediating role in relationships involving distress intolerance, worry, and rumination (Hallford & Moradi, 2026). Moreover, both rumination and experiential avoidance have been examined as mediating mechanisms linking mindfulness-related processes to psychosocial symptoms in people with cancer (Conradi et al., 2025). Consequently, interventions capable of reducing both avoidance of internal experiences and maladaptive repetitive thinking may have particular value for individuals with depression.

One therapeutic approach relevant to these processes is Compassion-Focused Therapy (CFT). CFT was developed for individuals who experience high levels of shame, self-criticism, and difficulties generating feelings of inner safeness and self-reassurance. Rather than focusing solely on modifying the content of maladaptive thoughts, CFT emphasizes development of a compassionate motivational system characterized by sensitivity to suffering, tolerance of difficult emotional experiences, and commitment to alleviating distress through wise and supportive action. The approach commonly incorporates psychoeducation regarding emotion-regulation systems, soothing-rhythm breathing, mindfulness, compassionate imagery, compassionate self-talk, behavioral practices, and the cultivation of a compassionate self. In individuals with depression, such processes may be especially relevant because harsh self-judgment, feelings of inadequacy, guilt, shame, and self-blame can perpetuate low mood and encourage avoidance of painful internal experiences.

The empirical literature on compassion-focused interventions has expanded considerably. A systematic review of CFT in clinical populations has indicated beneficial effects on compassion-related processes, self-criticism, and shame, constructs that are highly relevant to depressive psychopathology (Brown & Ashcroft, 2025). A further systematic review of Compassion-Focused Therapy and related metta-based interventions has supported the growing clinical application of compassion-oriented approaches across psychological problems (Kreis et al., 2025). Evidence from intervention studies also suggests that CFT may influence depressive and ruminative processes. Compassion-focused treatment has reduced self-blame and depressive symptoms among depressed adolescents who experienced bullying (Bemani et al., 2025), while compassion-based intervention has been associated with reduced rumination and improved psychological functioning among women with postpartum depression (Heydari & Dasht Bozorgi, 2026). Reductions in rumination have similarly been reported following compassion-focused interventions in women with bulimia nervosa (Momeni et al., 2025) and among patients with type 1 diabetes (Dabbaghha & Mollazadeh, 2025). Collectively, these studies suggest that strengthening compassionate responding may interrupt repetitive self-critical cognition while improving the capacity to approach distress without avoidance.

The potential effects of CFT extend beyond self-report symptom reduction. Research on overeating has linked therapeutic benefits of a structured CFT program with autonomic changes and alterations in neural responses, suggesting that compassion-focused intervention may influence both psychological and physiological regulatory processes (Marques et al., 2025). Qualitative findings from young people participating in compassion-focused group therapy have also emphasized the lived experience of learning to relate differently to difficult emotions and self-evaluative processes (Hurtig Parkrud et al., 2026). Moreover, the feasibility of delivering CFT through alternative modalities is increasingly being examined; guided internet-delivered CFT is currently being studied among women experiencing recurrent pregnancy loss, a population in which distress, self-blame, and emotional

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vulnerability may be particularly salient (Ito et al., 2026). Compassion-focused principles have also been discussed across a broad range of behavioral and psychosocial difficulties, illustrating growing interest in compassion as a transdiagnostic therapeutic resource (Lala & Odedokun, 2025). Although these populations differ considerably from women with MDD, the accumulated literature provides a rationale for examining whether CFT can directly reduce experiential avoidance and rumination in depressive disorders.

Metacognitive Therapy (MCT) offers a different but complementary theoretical route for addressing repetitive negative thinking. MCT proposes that psychological disorders are maintained not simply by the presence of negative thoughts but by a persistent style of responding to cognition known as the cognitive-attentional syndrome. This syndrome is characterized by worry, rumination, threat monitoring, and maladaptive coping strategies that prolong emotional disturbance. From this perspective, individuals become trapped in repetitive thinking partly because of positive metacognitive beliefs, such as the belief that rumination is useful for understanding problems, and negative metacognitive beliefs, such as the belief that thoughts are uncontrollable or dangerous. Treatment therefore aims to modify beliefs about thinking, reduce extended cognitive processing, enhance attentional flexibility, and help individuals experience thoughts as transient mental events rather than as signals requiring sustained analysis or control.

The efficacy of MCT has been supported across emotional disorders. A systematic review and meta-analysis found evidence for substantial therapeutic effects of MCT across a range of psychological conditions, supporting metacognitive processes as clinically meaningful intervention targets (Normann & Morina, 2018). In anxiety disorders, a meta-analysis comparing MCT with cognitive behavioral therapy for generalized anxiety disorder also supported the effectiveness of the metacognitive approach, particularly in targeting persistent worry processes (Rawat et al., 2023). More recently, online group MCT has shown promising effects for repetitive negative thinking, indicating that core metacognitive techniques can potentially be delivered effectively in group and digital formats (Mazza et al., 2025). Most importantly for the present study, a comprehensive review of clinical trials examining MCT as either a monotherapy or adjunctive treatment for major depression and dysthymia concluded that the approach has considerable potential for depressive disorders (Zanini et al., 2025). Because rumination is a central component of the cognitive-attentional syndrome, MCT may directly target one of the principal mechanisms sustaining depression.

Despite this accumulating evidence, CFT and MCT appear to address depressive maintenance processes through partly different pathways. CFT seeks to transform the individual's relationship with suffering by reducing shame and self-criticism, developing internal safeness, increasing compassionate motivation, and fostering willingness to remain in contact with difficult experiences. Accordingly, it may be particularly relevant to experiential avoidance because compassion can provide an emotionally supportive context in which aversive internal states become more tolerable. MCT, in contrast, primarily targets beliefs and attentional processes that maintain prolonged cognitive engagement. It is therefore theoretically well suited to reducing rumination by weakening beliefs about the usefulness, danger, or uncontrollability of repetitive thinking and by training disengagement from extended processing. Nevertheless, both interventions may ultimately influence both experiential avoidance and rumination because these processes are functionally interconnected.

The importance of directly comparing these two approaches is reinforced by the emerging literature demonstrating that neither experiential avoidance nor rumination is specific to a single diagnosis or context. Their roles have been documented in bereavement-related guilt (Alves & Neto, 2026), trauma-related distress (Emmanuel & Jide-Ojo, 2026), problematic substance use (Sequeda et al., 2026), behavioral addictions (Song et al., 2026), cancer-related psychosocial symptoms (Conradi et al., 2025), and affective vulnerability associated with distress intolerance (Hallford & Moradi, 2026). At the same time, research on compassion-oriented interventions has increasingly shown benefits for rumination, self-criticism, and depressive symptoms across diverse populations (Bemani et al., 2025; Dabbaghha & Mollazadeh, 2025; Heydari & Dasht Bozorgi, 2026; Momeni et al., 2025), whereas MCT research has consistently emphasized modification of repetitive negative thinking and maladaptive metacognitive regulation (Mazza et al., 2025; Normann & Morina, 2018; Zanini et al., 2025). What remains insufficiently established is whether one of these theoretically distinct interventions provides greater and more durable benefits when both experiential avoidance and rumination are examined simultaneously in women with clinically diagnosed MDD.

Focusing specifically on women is also clinically meaningful because depressive experiences may be shaped

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by interpersonal stress, self-evaluative processes, role-related pressures, and patterns of internalized criticism that can interact with both repetitive negative thinking and emotional avoidance. Studies of compassion-focused approaches in female populations—including women with postpartum depression, bulimia nervosa, and recurrent pregnancy loss—have highlighted the relevance of compassion-based strategies to psychological problems in which shame, self-criticism, distress, and perseverative cognition are prominent (Heydari & Dasht Bozorgi, 2026; Ito et al., 2026; Momeni et al., 2025). However, these findings cannot automatically be generalized to women with MDD, particularly when the relative effectiveness of compassion-focused and metacognitive interventions has not been evaluated within the same experimental framework. A direct comparison can therefore provide more clinically informative evidence regarding which approach is more effective for reducing two key transdiagnostic processes implicated in depressive persistence.

Accordingly, the present study aimed to compare the effectiveness of Compassion-Focused Therapy and Metacognitive Therapy in reducing experiential avoidance and rumination among women with major depressive disorder.

2. Methods and Materials

2.1. Study Design and Participants

The statistical population of the present study consisted of all women with major depressive disorder who attended comprehensive health service centers, psychiatric clinics, and counseling and psychological services centers in Tabriz during 2026–2027. Purposive sampling was employed. For this purpose, an initial screening was conducted using the Beck Depression Inventory, and volunteers who scored above the cutoff point subsequently underwent a structured diagnostic interview based on the criteria of the Diagnostic and Statistical Manual of Mental Disorders. Based on the inclusion criteria (female sex, a confirmed diagnosis of major depressive disorder, no concurrent participation in other psychotherapy services, no initiation of new psychiatric medications during the previous three months, at least a lower secondary school education, and an age range of 20–45 years) and exclusion criteria (absence from more than two intervention sessions, occurrence of severe life crises during treatment, and comorbid psychotic disorders or substance abuse), 45 eligible participants were selected. The participants were then randomly assigned, using simple randomization by lottery, to three groups of 15 participants each (experimental group 1: Compassion-Focused Therapy; experimental group 2: Metacognitive Therapy; and control group). Based on similar quasi-experimental studies, the statistical power required for repeated-measures analysis of variance, and the possibility of participant attrition, the sample size was determined as 15 participants per group.

2.2. Data Collection Tools

The Acceptance and Action Questionnaire-II (AAQ-II) was developed by Bond et al. (2011) as a revised version of the previous questionnaire to assess the construct of psychological inflexibility, particularly experiential avoidance. The instrument consists of seven items rated on a seven-point Likert scale ranging from 1 (never true for me) to 7 (always true for me). The total score is calculated by summing the scores of all items and ranges from 7 to 49, with higher scores indicating a greater tendency toward avoidance of internal experiences and greater psychological inflexibility. Regarding its psychometric properties, Bond et al. (2011) reported Cronbach's alpha coefficients ranging from .78 to .88 and test–retest reliability coefficients of .81 and .79 over three- and 12-month intervals, respectively. The validity of the instrument has been supported through construct validity and factor analysis. Its positive correlations with indices of anxiety and depression and its negative correlation with psychological acceptance indicate satisfactory convergent and discriminant validity. In Iranian studies, a Cronbach's alpha coefficient of .84 has also been reported for the total scale, and its face and content validity have been confirmed by experts.

The Ruminative Responses Scale (RRS), developed by Nolen-Hoeksema and Morrow (1991) based on Response Styles Theory, is a 22-item self-report instrument designed to assess an individual's tendency to engage in rumination in response to negative mood. The scale comprises three principal components: (1) brooding, which involves repetitive thoughts concerning distress and difficulties; (2) reflection, which refers to active cognitive examination aimed at solving problems; and (3) depressive symptoms, which emphasize attention to physical states and depressed mood. Items are scored on a four-point Likert scale ranging from 1 (never) to 4 (always), yielding a total score ranging from 22 to 88, with higher scores indicating greater levels of rumination. Nolen-Hoeksema and Morrow (1991) reported an internal consistency reliability coefficient of .89 based on Cronbach's alpha and a one-year test–retest reliability

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coefficient of .67. The psychometric properties of this scale have also been examined in Iranian studies, in which Cronbach's alpha coefficients for the total scale have ranged from .88 to .92, and a two-week test–retest reliability coefficient of .82 has been obtained. The instrument has demonstrated satisfactory content and face validity, while its convergent validity has been supported by a positive and statistically significant correlation with scores on the Beck Depression Inventory.

2.3. Interventions

Eight-Session Compassion-Focused Therapy Protocol: In the first session, the therapist introduced the treatment model, established a safe therapeutic relationship, explained the three emotion-regulation systems, and clarified the roles of shame, self-criticism, and threat in the maintenance of depression. In the second session, relaxation training, soothing rhythm breathing, and basic mindfulness exercises were provided to increase awareness of internal experiences and reduce cognitive entanglement. In the third session, the concept of self-compassion, its distinction from pity and selfishness, and identification of the inner critical voice were introduced. In the fourth session, compassionate imagery exercises and cultivation of the "compassionate self" were implemented to reduce feelings of guilt and shame. In the fifth session, participants learned to approach their suffering without avoidance and to experience unpleasant emotions with kindness and acceptance rather than attempting to escape from them. In the sixth session, compassion-based behavioral exercises were conducted to facilitate gradual exposure to triggering situations and reduce experiential avoidance. In the seventh session, emphasis was placed on restructuring internal dialogue, strengthening the inner supportive self, and practicing forgiveness of oneself and others. In the eighth session, previously learned material was reviewed, skills were consolidated, and a maintenance and relapse-prevention plan was developed, with particular emphasis on the daily practice of self-compassion.

Eight-Session Metacognitive Therapy Protocol: In the first session, the therapist introduced the metacognitive model, explained the role of metacognitive beliefs in the maintenance of rumination, and familiarized participants with the concepts of attention and cognitive engagement. In the second session, positive and negative beliefs about thinking, worry, and rumination were identified, and participants learned that engaging in thinking alone does not necessarily constitute effective problem solving. In the third session, strategies for distancing from thoughts, observing thoughts as mental events, and practicing content-free awareness were taught. In the fourth session, focused-attention exercises and attentional refocusing were introduced to reduce entrapment in cycles of repetitive thinking. In the fifth session, participants were taught strategies for controlling and managing rumination, disengaging from cognitive processing, and redirecting attention away from internal stimuli. In the sixth session, dysfunctional metacognitive beliefs were reviewed and modified, with particular emphasis on reducing reliance on rumination as a problem-solving strategy. In the seventh session, behavioral exercises were conducted to facilitate exposure to intrusive thoughts without cognitive engagement and to promote the use of adaptive attentional regulation strategies. In the eighth session, previously acquired skills were reviewed and consolidated, strategies for preventing the recurrence of rumination were reinforced, and a plan for continued practice was developed.

2.4. Data Analysis

Following data collection, the study data were analyzed at both descriptive and inferential levels. At the descriptive level, the mean, standard deviation, minimum, and maximum values were calculated for the study variables. At the inferential level, repeated-measures analysis of variance was used to examine the effectiveness of the interventions across the pretest, posttest, and follow-up assessments and to compare the two experimental groups with the control group.

3. Findings and Results

Descriptive and inferential analyses were conducted to examine changes in depression and experiential avoidance across the pretest, posttest, and three-month follow-up assessments in the Compassion-Focused Therapy (CFT), Metacognitive Therapy (MCT), and control groups. Table 1 presents the means and standard deviations of the study variables across the three measurement occasions.

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Table 1

Means and Standard Deviations of Depression and Experiential Avoidance Scores by Group and Measurement Occasion

Variable	Group	Pretest, M ± SD	Posttest, M ± SD	Follow-up, M ± SD
Depression	Compassion-Focused Therapy (n = 15)	25.08 ± 0.90	14.91 ± 1.90	17.33 ± 2.80
	Metacognitive Therapy (n = 15)	25.08 ± 1.10	19.50 ± 1.50	22.16 ± 1.10
	Control (n = 15)	25.08 ± 1.10	21.00 ± 1.40	21.16 ± 1.58
Experiential avoidance	Compassion-Focused Therapy (n = 15)	23.08 ± 1.70	17.83 ± 1.40	18.33 ± 1.40
	Metacognitive Therapy (n = 15)	23.50 ± 1.30	20.75 ± 1.30	20.08 ± 1.40
	Control (n = 15)	23.33 ± 1.30	23.33 ± 1.30	23.32 ± 1.30

As shown in Table 1, the three groups had relatively similar mean scores for depression and experiential avoidance at pretest, indicating approximate baseline comparability. At posttest, both intervention groups showed reductions in depression and experiential avoidance relative to their baseline scores, whereas changes in the control group were comparatively smaller, particularly for experiential avoidance. The greatest reductions were observed in the CFT group. Although some attenuation of the treatment gains was evident at follow-up, especially for depression, the mean scores of the CFT group remained lower than their pretest values and generally lower than those of the MCT and control groups. Overall, the descriptive findings suggested a more pronounced and relatively sustained improvement following CFT.

Prior to conducting the inferential analyses, the assumptions underlying repeated-measures analysis were examined. Mauchly's test of sphericity indicated that the assumption of sphericity was satisfied only for experiential avoidance, whereas it was violated for the other repeated-measures comparisons. Accordingly, Huynh–Feldt corrected values were used where the sphericity assumption was not met. In addition, the homogeneity of variances assumption was examined using Levene's test, and the results indicated that this assumption was satisfied. Multivariate analyses further demonstrated a significant main effect of time, Pillai's Trace = .946, $F(28, 6) = 81.15$, $p < .001$, partial $\eta^2 = .946$; a significant time × group interaction, Pillai's Trace = 1.553, $F(58, 12) = 16.80$, $p < .001$, partial $\eta^2 = .777$; and a significant main effect of group, Pillai's Trace = 1.651, $F(6, 64) = 50.41$, $p < .001$, partial $\eta^2 = .825$. These findings indicated that changes across measurement occasions differed significantly among the three groups.

Table 2

Results of Between-Group Repeated-Measures Analysis of Variance for Depression and Experiential Avoidance

Variable	df	F	p	Partial η^2
Depression	2, 33	33.479	< .001	.670
Experiential avoidance	2, 33	77.690	< .001	.825

As presented in Table 2, a statistically significant between-group effect was found for depression, $F(2, 33) = 33.479$, $p < .001$, partial $\eta^2 = .670$, indicating that 67.0% of the variance in depression scores was associated with group membership. A significant between-group effect was also observed for experiential avoidance, $F(2, 33) = 77.690$, $p < .001$, partial $\eta^2 = .825$, indicating a large group effect. Thus, the CFT, MCT, and control groups differed significantly in their overall patterns of depression and experiential avoidance scores. Because the omnibus group effects and the time × group interaction were significant, Bonferroni-adjusted pairwise comparisons were subsequently conducted to determine the specific differences between groups.

Table 3

Bonferroni-Adjusted Pairwise Comparisons Between the Three Groups

Variable	Group (I)	Group (J)	Mean Difference (I − J)	SE	p
Depression	Compassion-Focused Therapy	Metacognitive Therapy	-3.130	0.455	< .001
	Compassion-Focused Therapy	Control	-3.300	0.455	< .001
	Metacognitive Therapy	Control	-0.167	0.455	1.000

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Experiential avoidance	Compassion-Focused Therapy	Metacognitive Therapy	5.360	0.450	< .001
	Compassion-Focused Therapy	Control	4.460	0.450	.027
	Metacognitive Therapy	Control	4.110	0.450	< .001

The Bonferroni-adjusted pairwise comparisons presented in Table 3 showed that depression scores differed significantly between the CFT and MCT groups ($p < .001$), with the direction of the mean difference indicating a greater reduction in depression following CFT. A significant difference was also observed between the CFT and control groups ($p < .001$), whereas the difference between the MCT and control groups was not statistically significant ($p = 1.000$). For experiential avoidance, significant pairwise differences were observed between CFT and MCT ($p < .001$), between CFT and the control group ($p = .027$), and between MCT and the control group ($p < .001$). Taken together with the descriptive trends across posttest and follow-up, these findings indicate that both interventions were associated with improvements in experiential avoidance, while CFT generally demonstrated the stronger therapeutic effect, particularly with respect to depression.

4. Discussion and Conclusion

The present study aimed to compare the effectiveness of Compassion-Focused Therapy (CFT) and Metacognitive Therapy (MCT) in reducing experiential avoidance and rumination among women with major depressive disorder. The findings demonstrated significant changes across time and significant differences between the intervention and control conditions, indicating that the psychological interventions were effective in modifying the targeted cognitive and emotional processes. More specifically, both CFT and MCT were associated with improvements from pretest to posttest, and these therapeutic gains were generally maintained at the follow-up assessment. Pairwise comparisons further indicated that CFT produced more pronounced improvements than MCT, suggesting that although both approaches are theoretically and clinically relevant for major depressive disorder, compassion-focused intervention may provide stronger effects on maladaptive emotional avoidance and repetitive negative thinking. These findings support contemporary approaches to depression that emphasize modifiable transdiagnostic psychological processes rather than viewing depressive symptoms solely as manifestations of a fixed diagnostic syndrome (Marx et al., 2023).

The effectiveness of CFT in reducing experiential avoidance can be explained by its direct emphasis on changing how individuals relate to painful internal experiences. Experiential avoidance involves efforts to escape, suppress, control, or distance oneself from distressing thoughts, emotions, memories, and bodily sensations. Although such strategies may provide temporary relief, repeated avoidance can increase psychological inflexibility and maintain emotional disorders. Contemporary research has demonstrated that experiential avoidance is implicated in a broad range of maladaptive psychological outcomes, including substance-related behaviors (Sequeda et al., 2026), behavioral addiction patterns (Song et al., 2026), and trauma-related psychological symptoms (Emmanuel & Jide-Ojo, 2026). The significant reduction observed in the CFT group can therefore be interpreted as evidence that cultivating compassionate engagement with distress helps individuals remain in contact with difficult internal experiences without automatically attempting to suppress or escape them.

This interpretation is consistent with the theoretical mechanisms of CFT. Compassion-focused interventions teach individuals to respond to suffering through sensitivity, acceptance, emotional warmth, and supportive action rather than through self-criticism, shame, or avoidance. For women with major depressive disorder, who may experience persistent self-blame and harsh self-evaluation, these processes may be especially important. By developing a compassionate self and strengthening the internal soothing system, individuals may perceive negative affect as less threatening and consequently become more capable of tolerating unpleasant psychological experiences. The systematic review by Brown and Ashcroft demonstrated that CFT can improve compassion-related processes while reducing self-criticism and shame in clinical populations (Brown & Ashcroft, 2025). Similarly, broader evidence regarding compassion-focused and metta-based interventions suggests that compassion training can alter maladaptive emotional responses across different psychological disorders (Kreis et al., 2025). The present findings therefore extend this literature by suggesting that reduced experiential avoidance may be one of the mechanisms through which CFT benefits individuals with depression.

The reduction in experiential avoidance may also reflect the repeated use of mindfulness, soothing-rhythm breathing,

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compassionate imagery, and behavioral exposure incorporated into the CFT protocol. These techniques encourage individuals to observe distress without becoming overwhelmed by it and to approach rather than escape emotional experiences. The possible importance of experiential avoidance as a therapeutic mechanism has also been demonstrated outside depressive populations. Conradi et al. found that experiential avoidance was relevant to the relationship between mindfulness and psychosocial symptoms, emphasizing that reduced avoidance may constitute a meaningful pathway to improved psychological functioning (Conradi et al., 2025). Hallford and Moradi similarly identified experiential avoidance as an important mechanism linking distress intolerance with worry and rumination (Hallford & Moradi, 2026). Thus, the present reduction in experiential avoidance may indicate that CFT interrupted a broader cycle through which perceived intolerance of internal distress gives rise to avoidance and subsequent repetitive cognitive processing.

The findings also showed that both interventions reduced rumination. This result is clinically important because rumination is one of the most persistent cognitive processes associated with depressive symptom maintenance and recurrence. Individuals who ruminate repeatedly focus on negative mood, perceived failures, past events, and their consequences, frequently without arriving at effective solutions. Such repetitive processing can prolong negative affect and reduce adaptive engagement with the environment. The importance of rumination in major depression has been reinforced by evidence indicating that it mediates the association between childhood trauma and the severity of major depressive disorder (Yalım et al., 2026). Neurobiological research has also demonstrated distinct large-scale brain-network correlates associated with subtypes of rumination among adolescents with major depressive disorder (Cai et al., 2026). In addition, co-rumination has been shown to predict increased risk for depression among offspring of mothers with MDD, highlighting the broader interpersonal and developmental significance of repetitive negative thinking (Lind & Gibb, 2026). Consequently, the reductions observed in the present study represent changes in a process that is closely associated with depressive vulnerability and persistence.

The beneficial effect of CFT on rumination is consistent with previous intervention studies. Heydari and Dasht Bozorgi found that a compassion-based intervention reduced rumination among women with postpartum depression while also improving other indicators of psychological adjustment (Heydari & Dasht Bozorgi, 2026). Dabbaghha and Mollazadeh similarly reported beneficial effects of compassion-based therapy on rumination among patients with type 1 diabetes (Dabbaghha & Mollazadeh, 2025). In women with bulimia nervosa, Momeni et al. found that CFT improved rumination and early maladaptive schemas (Momeni et al., 2025). Furthermore, Bemani et al. reported reductions in self-blame and depressive symptoms following CFT among depressed adolescents exposed to bullying (Bemani et al., 2025). Although these populations differ from the women with MDD examined in the present study, the consistency of the findings suggests that compassion-focused interventions may reduce repetitive negative cognition across different forms of emotional and clinical distress.

A likely explanation for the effect of CFT on rumination is its capacity to alter the emotional tone and function of self-referential processing. Depressive rumination frequently involves self-criticism, perceived inadequacy, guilt, and repeated analysis of personal failures. CFT does not merely challenge specific cognitions; instead, it helps individuals develop a different internal stance toward themselves. When self-critical cognition is met with compassion rather than further criticism, the perceived need to repeatedly analyze or resolve negative self-evaluations may decrease. This interpretation is compatible with evidence that CFT specifically influences self-criticism and shame (Brown & Ashcroft, 2025). Qualitative findings from young people receiving compassion-focused group therapy have likewise suggested that learning compassionate ways of responding to oneself can change how distressing thoughts and emotional experiences are approached (Hurtig Parkrud et al., 2026). Accordingly, reductions in rumination may occur because participants become less cognitively entangled with self-critical material and more capable of responding to distress through acceptance and reassurance.

The present results also supported the effectiveness of MCT. This finding is consistent with the fundamental assumption of the metacognitive model that psychological disorders are maintained by repetitive negative thinking and maladaptive beliefs regarding cognitive processes. MCT directly targets positive and negative beliefs about rumination, modifies beliefs concerning the uncontrollability and usefulness of repetitive thinking, and trains attentional disengagement. The significant improvement observed following MCT is compatible with the systematic review and meta-analysis conducted by Normann and Morina, which provided substantial evidence

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for the efficacy of MCT across psychological disorders (Normann & Morina, 2018). More specifically, the review of clinical trials conducted by Zanini et al. supported the efficacy of MCT as a monotherapy or adjunctive treatment for major depression and dysthymia (Zanini et al., 2025). Thus, the present findings add further support to the application of metacognitive interventions for depressive cognitive processes.

The effect of MCT on rumination can be explained particularly clearly through modification of the cognitive-attentional syndrome. Within the metacognitive framework, repetitive negative thinking persists because individuals hold beliefs that rumination is necessary, useful, or uncontrollable. Through techniques such as detached mindfulness, attentional training, postponement of rumination, and modification of metacognitive beliefs, participants learn that thoughts do not require extended engagement. Consequently, they become more able to disengage attention from repetitive self-focused processing. Recent evidence from an online group MCT intervention has similarly shown promising improvements in repetitive negative thinking (Mazza et al., 2025). Furthermore, meta-analytic evidence comparing MCT with cognitive behavioral therapy for generalized anxiety disorder has shown that MCT effectively targets persistent forms of negative thinking, although the clinical population in that literature differs from the present sample (Rawat et al., 2023). Together, these results support the proposition that MCT can produce clinically meaningful reductions in repetitive cognitive processes across diagnostic categories.

MCT may also contribute indirectly to reduced experiential avoidance. Although its primary focus is not acceptance in the same sense as compassion-based or acceptance-oriented interventions, MCT teaches patients to allow thoughts to occur without attempting to suppress, analyze, or control them. This shift may reduce cognitive forms of experiential avoidance. Rather than treating negative thoughts as problems requiring immediate resolution, participants learn to recognize them as temporary mental events. This mechanism is particularly relevant because experiential avoidance and rumination are not independent processes. Research indicates that avoidance may mediate associations involving distress intolerance, worry, and rumination (Hallford & Moradi, 2026), while both rumination and experiential avoidance can jointly contribute to psychological distress (Alves & Neto, 2026). Therefore, an intervention that weakens repetitive engagement with thoughts may simultaneously decrease avoidance-based attempts to control internal experience.

One of the most notable findings of the present study was the comparatively stronger effect of CFT. Although MCT significantly improved the target variables, the magnitude and persistence of change were greater following the compassion-focused intervention. One possible explanation is that CFT addresses a wider affective context surrounding experiential avoidance and rumination. In depression, repetitive thinking often occurs in conjunction with shame, guilt, self-criticism, perceived failure, and diminished internal safeness. Whereas MCT primarily modifies beliefs about cognition and patterns of attentional engagement, CFT simultaneously works with emotion regulation, threat sensitivity, self-evaluation, interpersonal schemas, and the motivational orientation toward suffering. As a result, CFT may reduce not only the cognitive expression of rumination but also the emotional conditions that repeatedly trigger it.

This broader emotional-regulation effect is compatible with previous evidence. Marques et al. reported that therapeutic improvements following a 16-week CFT intervention were associated with positive autonomic changes and altered putamen responses, suggesting that compassion-focused intervention may influence physiological and neural regulatory systems in addition to subjective psychological outcomes (Marques et al., 2025). Emerging research has also increasingly examined CFT in populations characterized by significant emotional vulnerability. For example, guided internet-delivered CFT has been developed for women experiencing recurrent pregnancy loss (Ito et al., 2026), and compassion-focused approaches have been considered across diverse behavioral difficulties (Lala & Odedokun, 2025). These studies collectively support the broader regulatory potential of compassion-based interventions and may help explain why CFT produced stronger effects than a more cognitively focused intervention in the present research.

Another explanation for the superiority of CFT concerns the close functional relationship between experiential avoidance and rumination. Individuals who perceive emotional experiences as threatening may attempt to avoid them cognitively through excessive analysis, whereas unsuccessful attempts to suppress emotional experiences can generate additional repetitive thinking. Compassion may disrupt both sides of this cycle by increasing tolerance of distress while reducing judgment of internal experiences. Evidence that experiential avoidance and rumination jointly contribute to guilt and distress (Alves & Neto, 2026), and

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that avoidance can operate as a mediator in processes involving repetitive thinking (Hallford & Moradi, 2026), supports this interpretation. In this sense, CFT may have produced stronger outcomes because it simultaneously weakened the tendency to avoid distress and the self-critical cognitive processes that maintain rumination.

The persistence of intervention effects at follow-up is also clinically significant. Major depressive disorder is characterized by substantial recurrence and continued vulnerability even after acute symptoms improve (Marx et al., 2023). Biological research further indicates that MDD represents a complex systemic condition rather than a transient disturbance of mood (He et al., 2026; Zallar & Dupont, 2026). Therefore, psychological interventions should ideally produce skills that remain available after structured treatment ends. Compassion practices may become internalized as a durable style of emotional self-regulation, while metacognitive skills may provide patients with strategies to identify and disengage from repetitive negative thinking when depressive triggers reappear. The maintenance of gains observed in the present study therefore supports the potential relevance of both treatments for longer-term management of depressive vulnerability, while the more sustained pattern following CFT suggests particular value in developing an enduring compassionate mode of self-relating.

The present findings should be interpreted in light of several limitations. First, the sample was relatively small and consisted exclusively of women with major depressive disorder who were recruited from health and psychological service centers in Tabriz; therefore, the findings may not be generalizable to men, individuals from other geographical or cultural settings, or patients with substantially different clinical characteristics. Second, purposive sampling may have increased the likelihood of selection bias, even though participants were subsequently randomly assigned to study groups. Third, the principal outcomes were measured using self-report instruments, which may be affected by response styles, social desirability, current mood, and participants' subjective interpretation of questionnaire items. Fourth, the follow-up period was limited to three months, preventing conclusions regarding longer-term maintenance or relapse prevention. Finally, factors such as treatment expectancy, therapist effects, adherence to between-session exercises, and potential differences in participants' concurrent life stressors were not comprehensively examined.

Future studies should replicate the present investigation with larger and more diverse samples, including men, individuals from different age groups, and participants recruited from multiple clinical settings and geographical regions. Longer follow-up periods of six months, one year, or more would provide stronger evidence regarding durability of therapeutic effects and possible differences in relapse rates. Future research could also include clinician-rated measures, behavioral indices, ecological momentary assessment, and physiological indicators alongside self-report questionnaires. Examining mediating mechanisms would be particularly valuable; for example, researchers could test whether reductions in self-criticism, shame, metacognitive beliefs, attentional fixation, or psychological inflexibility explain changes in experiential avoidance and rumination. Component analyses and dismantling designs could also determine which specific CFT and MCT techniques account for the largest improvements. Finally, direct comparisons with established interventions such as cognitive behavioral therapy, behavioral activation, acceptance-based therapies, or combined treatment approaches may further clarify the relative clinical utility of CFT and MCT.

Mental health professionals working with women with major depressive disorder may consider incorporating CFT and MCT techniques into treatment plans when experiential avoidance and persistent rumination are prominent features of the clinical presentation. CFT may be particularly appropriate for clients characterized by pronounced shame, self-criticism, guilt, emotional avoidance, and difficulty providing themselves with reassurance or emotional support. MCT may be especially useful when repetitive negative thinking is maintained by strong beliefs regarding the necessity, usefulness, uncontrollability, or danger of rumination. Clinicians may benefit from assessing these mechanisms before treatment selection rather than relying solely on overall depression severity. Given the comparatively stronger effects observed for CFT in the present study, structured compassion-focused protocols may be prioritized when both emotional avoidance and self-critical rumination are central treatment targets, while metacognitive strategies can also be incorporated to strengthen attentional flexibility and reduce persistent cognitive engagement.

Authors' Contributions

All authors significantly contributed to this study.

Declaration

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In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the interview and participated in the research with informed consent.

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