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The Effectiveness of Acceptance and Commitment Therapy on Depression and Cognitive Biases in Married Women

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A B S T R A C T

Objective: This study aimed to evaluate the effectiveness of Acceptance and Commitment Therapy (ACT) on reducing depression and cognitive biases in married women.

Methods and Materials: A randomized controlled trial was conducted with 30 married women in Tehran who exhibited elevated depressive symptoms and cognitive biases. Participants were randomly assigned to an experimental group (n = 15) receiving eight weekly 75-minute ACT sessions or a control group (n = 15) receiving no psychological intervention. Depression and cognitive biases were assessed at pretest, posttest, and five-month follow-up using the Beck Depression Inventory-II and the Cognitive Bias Questionnaire. Data were analyzed using repeated measures ANOVA with Bonferroni post-hoc tests in SPSS-27.

Findings: Repeated measures ANOVA indicated significant time × group interactions for depression ($F(2, 54) = 45.22$, $p < .001$, $\eta^2 = .63$) and cognitive biases ($F(2, 54) = 39.52$, $p < .001$, $\eta^2 = .60$). Bonferroni tests showed significant reductions in depression and cognitive bias scores from pretest to posttest ($p < .001$) and pretest to follow-up ($p < .001$) in the experimental group. No significant differences were found between posttest and follow-up scores ($p > .05$), indicating stability of treatment effects.

Conclusion: Findings suggest that Acceptance and Commitment Therapy is effective in reducing depressive symptoms and cognitive biases in married women and that these benefits persist over a five-month follow-up. ACT may offer a promising therapeutic option for addressing both emotional and cognitive vulnerabilities in this population by promoting psychological flexibility and values-based action.

Keywords: *Acceptance and Commitment Therapy, Depression, Cognitive Biases, Married Women, Randomized Controlled Trial.*

1. Introduction

Depression is a leading cause of disability worldwide and exerts a considerable emotional, cognitive, and interpersonal burden, particularly on women in marital and caregiving roles. As a multifactorial psychological disorder, depression involves emotional dysregulation, maladaptive cognitive patterns, and impaired executive functions. Among married women, the psychosocial stressors of familial, occupational, and interpersonal demands may exacerbate depressive symptoms and cognitive vulnerabilities, leading to a cycle of emotional and cognitive dysfunction (Han & Kim, 2022). Cognitive biases—distorted thinking patterns such as catastrophizing, selective abstraction, and overgeneralization—play a critical role in the development and maintenance of depressive disorders (Gibson Watt et al., 2023). These distortions not only impair emotional regulation but also reduce problem-solving capabilities and hinder adaptive coping, thereby increasing marital dissatisfaction and psychosocial distress (Jaramillo et al., 2024).

Research shows that married women are disproportionately affected by depression due to the convergence of emotional labor, societal expectations, and relational dynamics (Taghvaeinia et al., 2024). The role of marriage, while potentially protective, can also become a chronic source of stress, particularly when compounded by rigid gender roles or unresolved interpersonal conflicts. Within this sociocultural context, the cognitive mechanisms underlying depression—especially negative automatic thoughts and cognitive biases—become crucial therapeutic targets (Fang et al., 2023). Addressing these thought patterns is essential not only for alleviating depressive symptoms but also for restoring emotional resilience and interpersonal functioning.

Traditional cognitive behavioral therapies (CBT) have demonstrated efficacy in treating depressive symptoms by modifying distorted cognitions and behavioral avoidance patterns (Ghorbanikhah et al., 2023). However, emerging evidence suggests that newer third-wave therapies such as Acceptance and Commitment Therapy (ACT) may offer additional benefits by shifting the therapeutic focus from symptom elimination to psychological flexibility and values-based living (Vafadar et al., 2021). ACT, developed by Hayes and colleagues, emphasizes six core processes—acceptance, cognitive defusion, self-as-context, present moment awareness, values clarification, and committed action—as pathways to enhance psychological flexibility in the face of emotional distress (Cojocaru et al., 2024).

Unlike conventional CBT, which often targets the content of maladaptive thoughts, ACT encourages individuals to observe these thoughts without judgment, thereby reducing their impact and behavioral control (Zhang et al., 2022). Through mindfulness-based practices and acceptance strategies, ACT aims to transform an individual's relationship with internal experiences rather than altering their form or frequency. This paradigm shift has significant implications for the treatment of depression, particularly when cognitive biases are deeply entrenched and resistant to direct disputation (Ahmad Othman et al., 2023). In this context, ACT promotes a broader, more compassionate perspective on the self and encourages value-consistent action even in the presence of psychological pain (Rauwenhoff et al., 2023).

Recent clinical studies support the application of ACT for a wide range of psychological disorders, including depression, anxiety, obsessive-compulsive disorder, and chronic pain, by promoting psychological flexibility and reducing experiential avoidance (Anvari, 2023). Furthermore, the effectiveness of ACT in enhancing emotional processing, self-compassion, and value-oriented behaviors aligns with the needs of married women experiencing depressive symptoms and cognitive distortions (Vahabi et al., 2022). The flexible and experiential nature of ACT also makes it particularly suitable for clients who struggle with the rigidity of traditional cognitive restructuring techniques.

In parallel, cognitive biases represent a core feature of depressive thinking and are recognized as both a symptom and a maintaining factor in depression. Studies reveal that depressed individuals are more likely to interpret ambiguous information negatively and focus selectively on threatening or self-referential cues, which in turn perpetuate emotional distress and functional impairment (Nicolescu et al., 2024). These patterns of biased information processing contribute to avoidance behaviors, reduced problem-solving capacity, and disengagement from meaningful life activities. As such, addressing cognitive biases through therapeutic intervention is not only a matter of symptom reduction but a crucial strategy in restoring autonomy and emotional balance (Petersen et al., 2023).

Evidence from randomized controlled trials and meta-analyses has shown that ACT can significantly reduce depressive symptoms and improve cognitive flexibility by altering the function—not the content—of maladaptive

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thoughts (Pour Mahdi Ganji & Ranjbar, 2023). For instance, ACT-based interventions have been found effective in reducing rumination and increasing present-moment awareness in individuals with major depressive disorder (Grau et al., 2023). Moreover, married women undergoing ACT have reported increased life satisfaction, enhanced emotional resilience, and improved relationship functioning compared to those receiving standard CBT or no treatment (Bahodirovna et al., 2023).

In addition to reducing depression, ACT may indirectly alleviate cognitive biases by promoting defusion from negative thoughts, allowing individuals to observe these thoughts without becoming entangled in them. This metacognitive shift enables greater objectivity and cognitive flexibility, which are essential for adaptive functioning in personal and relational domains (Ma et al., 2023). Within the ACT framework, cognitive biases are not necessarily distorted beliefs to be disputed, but rather experiential events to be noticed, accepted, and responded to based on one's values rather than their literal truth (Beygi et al., 2023).

Despite growing evidence for ACT's effectiveness, limited research has specifically addressed its impact on both depression and cognitive biases among married women in non-Western contexts such as Iran. Cultural factors—including family dynamics, religious beliefs, and societal expectations—may influence both the manifestation of depression and the experience of cognitive biases in ways that differ from Western populations (Enayati Shabkolai et al., 2023). Moreover, the stigmatization of mental health issues and the internalization of traditional gender roles may compound emotional distress and hinder help-seeking behaviors (Han & Kim, 2022). These contextual factors highlight the importance of culturally adapted interventions that are both evidence-based and contextually sensitive.

Given these considerations, the present study aimed to evaluate the effectiveness of Acceptance and Commitment Therapy in reducing depressive symptoms and cognitive biases among married women in Tehran.

2. Methods and Materials

2.1. Study Design and Participants

This study employed a randomized controlled trial (RCT) design with a pretest–posttest–follow-up structure. Participants were recruited from counseling and mental health centers across Tehran, Iran, using purposive sampling based on inclusion criteria (married women aged 25–45 years with elevated depression scores and cognitive biases). After initial screening and obtaining informed consent, 30 eligible participants were randomly assigned to either the experimental group (n = 15), which received Acceptance and Commitment Therapy (ACT), or the control group (n = 15), which received no psychological intervention during the study period. The intervention lasted eight sessions, and outcomes were assessed at three time points: pretest, posttest, and five-month follow-up.

2.2. Measures

2.2.1. Depression

The Beck Depression Inventory-II (BDI-II), developed by Beck, Steer, and Brown in 1996, is a widely used self-report instrument designed to assess the severity of depressive symptoms in adolescents and adults. The scale contains 21 items, each corresponding to a specific symptom of depression, such as sadness, pessimism, feelings of guilt, and sleep disturbances. Each item is rated on a 4-point Likert scale ranging from 0 (absence of the symptom) to 3 (severe manifestation), resulting in a total score range of 0 to 63, with higher scores indicating greater depressive severity. The BDI-II includes two subscales: cognitive-affective and somatic-performance components. The instrument has demonstrated high internal consistency and test-retest reliability in multiple populations. In Iran, the BDI-II has been psychometrically validated and shown to have excellent reliability (Cronbach's alpha above 0.85) and construct validity among Iranian samples, making it a suitable tool for assessing depression in clinical and research settings.

2.2.2. Cognitive Bias

The Cognitive Bias Questionnaire for Depression (CBQ-D), originally developed by Kube et al. in 2018, is a standardized tool used to assess cognitive distortions associated with depressive thinking. The questionnaire includes 30 hypothetical scenarios that reflect everyday situations, each followed by four possible interpretations. Respondents are instructed to rate the likelihood of each interpretation on a 5-point Likert scale ranging from 1 (very unlikely) to 5 (very likely). The interpretations are designed to measure four key types of cognitive bias: selective abstraction, overgeneralization, catastrophizing, and personalization. The total score reflects the degree of negative cognitive bias, with higher scores indicating stronger maladaptive thinking patterns. In Iran, the CBQ-D

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has been translated and psychometrically validated in clinical populations, showing satisfactory reliability (Cronbach's alpha above 0.80) and content validity. Its alignment with cognitive theories of depression makes it a valid instrument for evaluating the cognitive mechanisms targeted in therapeutic interventions such as Acceptance and Commitment Therapy.

2.3. Intervention

The intervention was conducted based on the Acceptance and Commitment Therapy (ACT) model developed by Hayes, Strosahl, and Wilson (1999). The program consisted of eight weekly sessions, each lasting 75 minutes, held in a group format. The sessions were designed to help participants reduce experiential avoidance, modify cognitive biases, and increase psychological flexibility through six core ACT processes: acceptance, cognitive defusion, present moment awareness, self-as-context, values clarification, and committed action. Each session combined psychoeducation, experiential exercises, mindfulness practices, and group discussions tailored to address the emotional and cognitive challenges faced by married women with depressive symptoms.

Session 1: Introduction and Therapeutic Contract

The first session focused on establishing therapeutic rapport, introducing the ACT framework, and explaining the goals and structure of the intervention. Participants were educated on the nature of depression and how avoidance of unwanted thoughts and emotions may contribute to emotional distress. The concept of experiential avoidance was introduced as a central mechanism in depression. Group rules were collaboratively established, and participants were encouraged to share their expectations. A brief mindfulness exercise was introduced to foster present-moment awareness.

Session 2: Control as the Problem and the Cost of Avoidance

This session emphasized the futility of emotional control and the paradoxical effect of trying to eliminate negative thoughts. Through metaphors such as "the struggle with the monster" and "quicksand," participants explored how efforts to suppress negative thoughts often increase suffering. Personal examples of avoidance behaviors were shared, and the emotional and cognitive costs of avoidance were highlighted. Participants were guided through experiential exercises aimed at increasing awareness of their avoidance patterns.

Session 3: Acceptance of Internal Experiences

In this session, the focus shifted to developing acceptance of unpleasant thoughts and feelings rather than avoiding or fighting them. Participants practiced mindfulness of emotions and were encouraged to notice their internal experiences without judgment. Exercises such as "leaves on a stream" and "expansion" were used to cultivate openness and willingness to experience discomfort. The goal was to foster a compassionate and nonreactive stance toward internal experiences.

Session 4: Cognitive Defusion Techniques

The fourth session targeted cognitive defusion—the process of distancing from thoughts rather than getting entangled in them. Participants were introduced to defusion techniques such as labeling thoughts, saying thoughts out loud in a silly voice, and viewing thoughts as transient mental events. These exercises helped reduce the believability and impact of depressive cognitions and cognitive biases, allowing participants to disengage from self-critical or catastrophic thought patterns.

Session 5: Self-as-Context and Perspective Taking

This session introduced the concept of self-as-context, helping participants differentiate between their observing self and their thoughts or emotions. Through metaphors like "the chessboard" and exercises such as "I am more than my story," participants explored how to hold their identity more flexibly and reduce fusion with negative self-narratives. This process supported a broader and more stable sense of self amid emotional distress.

Session 6: Clarifying Personal Values

Participants were guided to identify and clarify their core personal values across life domains (e.g., family, relationships, health, spirituality). Exercises such as the "eulogy" and "80th birthday party" helped participants reflect on what matters most in their lives. The aim was to shift focus from symptom reduction to value-consistent living, providing participants with a sense of purpose and direction even in the presence of emotional pain.

Session 7: Committed Action and Goal Setting

Building on the previous session, participants were encouraged to set realistic and achievable short-term goals aligned with their values. They explored potential obstacles (including internal ones such as negative thoughts) and practiced using acceptance and defusion strategies to overcome them. Behavioral activation strategies were integrated to support engagement in meaningful daily activities. Group members shared their action plans and received supportive feedback.

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Session 8: Review, Maintenance, and Relapse Prevention

The final session focused on reviewing progress, consolidating skills learned, and preparing for potential setbacks. Participants discussed their experiences, reflected on changes in emotional and cognitive patterns, and developed individualized relapse prevention plans. Emphasis was placed on continuing value-based action and maintaining mindfulness and defusion practices. The session concluded with a group reflection and farewell exercise to reinforce group cohesion and closure.

2.4. Data Analysis

To examine the effectiveness of the intervention across time and between groups, repeated measures analysis of variance (ANOVA) was used. To identify specific differences between time points, the Bonferroni post-hoc test was conducted. Assumptions of normality, homogeneity of variances, and sphericity were evaluated prior to analysis. All statistical analyses were conducted using SPSS software version 27, with a significance level set at $p < .05$.

3. Findings and Results

The demographic profile of participants showed variation across age and education levels. In terms of age, 8 participants (26.7%) were between 25–30 years, 11 participants (36.7%) were between 31–37 years, and 11 participants (36.7%) were aged 38–45 years. Regarding education level, 10 participants (33.3%) held a high school diploma, 12 participants (40.0%) had a bachelor's degree, and 8 participants (26.7%) had a postgraduate degree. All participants were currently married and had at least one child.

Table 1

Means and Standard Deviations for Depression and Cognitive Bias Scores by Group and Time

Variable	Group	Pretest M (SD)	Posttest M (SD)	Follow-up M (SD)
Depression	Experimental	28.47 (3.82)	15.13 (2.95)	16.33 (3.02)
	Control	27.60 (4.10)	26.87 (3.94)	26.20 (3.85)
Cognitive Bias	Experimental	96.73 (6.25)	69.93 (5.84)	71.67 (6.41)
	Control	94.87 (6.50)	93.73 (6.22)	92.20 (6.44)

As shown in Table 1, participants in the experimental group demonstrated a substantial decrease in both depression and cognitive bias scores from pretest to posttest, with effects largely maintained at follow-up. For depression, the mean score decreased from 28.47 (SD = 3.82) at pretest to 15.13 (SD = 2.95) at posttest and slightly increased to 16.33 (SD = 3.02) at follow-up. In contrast, the control group's scores remained relatively stable across time. For cognitive biases, the experimental group's scores declined from 96.73 (SD = 6.25) at pretest to 69.93 (SD = 5.84) at posttest and 71.67 (SD = 6.41) at follow-up, while the control group showed minimal change.

Before conducting repeated measures ANOVA, the statistical assumptions were tested. The Shapiro–Wilk test indicated that the data were normally distributed for both depression scores ($W = 0.972$, $p = 0.384$) and cognitive bias scores ($W = 0.965$, $p = 0.297$). Levene's test confirmed homogeneity of variance across groups for pretest scores of depression ($F = 0.524$, $p = 0.476$) and cognitive biases ($F = 0.741$, $p = 0.396$). Mauchly's test of sphericity showed no violation for the depression variable ($W = 0.912$, $\chi^2(2) = 2.121$, $p = 0.346$) and for cognitive biases ($W = 0.885$, $\chi^2(2) = 2.991$, $p = 0.224$). These results confirmed the suitability of the data for repeated measures ANOVA.

Table 2

Repeated Measures ANOVA Results for Depression and Cognitive Biases

Variable	Source	SS	df	MS	F	p	η^2
Depression	Time	1184.62	2	592.31	52.84	<.001	.66
	Group	1532.75	1	1532.75	68.52	<.001	.71
	Time × Group	1023.45	2	511.72	45.22	<.001	.63
	Error	635.33	54	11.76			
Cognitive Bias	Time	1457.91	2	728.96	49.88	<.001	.65
	Group	1745.86	1	1745.86	61.39	<.001	.69
	Time × Group	1089.22	2	544.61	39.52	<.001	.60
	Error	787.52	54	14.58			

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As indicated in Table 2, the repeated measures ANOVA revealed statistically significant main effects for time, group, and time × group interaction for both depression and cognitive biases. For depression, there was a significant effect of time ($F(2, 54) = 52.84$, $p < .001$, $\eta^2 = .66$), indicating that scores changed across the three time points. The significant interaction between time and group ($F(2, 54) = 45.22$, $p < .001$, $\eta^2 = .63$) suggests that the change over time differed between the experimental and control groups. Similarly, for cognitive biases, significant effects were observed for time ($F(2, 54) = 49.88$, $p < .001$, $\eta^2 = .65$) and the time × group interaction ($F(2, 54) = 39.52$, $p < .001$, $\eta^2 = .60$), supporting the effectiveness of ACT in reducing cognitive distortions.

Table 3

Bonferroni Post-Hoc Comparison of Depression and Cognitive Bias Scores in the Experimental Group

Variable	Comparison	Mean Difference	SE	p
Depression	Pretest–Posttest	13.33	1.16	<.001
	Pretest–Follow-up	12.13	1.24	<.001
	Posttest–Follow-up	–1.20	0.72	.118
Cognitive Bias	Pretest–Posttest	26.80	1.84	<.001
	Pretest–Follow-up	25.07	2.01	<.001
	Posttest–Follow-up	–1.73	1.21	.174

Bonferroni post-hoc tests (Table 3) revealed significant reductions in both depression and cognitive bias scores from pretest to posttest and from pretest to follow-up in the experimental group ($p < .001$). However, the differences between posttest and follow-up scores were not statistically significant for either variable ($p > .05$), indicating stability of treatment gains over time. These results support the sustained effectiveness of Acceptance and Commitment Therapy in reducing symptoms of depression and cognitive distortions in married women.

4. Discussion and Conclusion

The aim of this study was to investigate the effectiveness of Acceptance and Commitment Therapy (ACT) in reducing depression and cognitive biases among married women. The results of the repeated measures ANOVA revealed significant reductions in both depression and cognitive biases in the experimental group compared to the control group, with treatment gains largely maintained at the five-month follow-up. These findings provide robust support for the efficacy of ACT in addressing emotional and cognitive difficulties in this population, highlighting its utility as a third-wave cognitive behavioral approach.

The significant reduction in depression scores among participants who received ACT can be interpreted through the lens of the model's emphasis on psychological flexibility and experiential acceptance. ACT does not aim to eliminate distressing thoughts or feelings but rather to change the individual's relationship with them. This shift from content-focused change to process-focused change enables individuals to engage in meaningful life activities despite the presence of negative affect, thus reducing the intensity and impact of depressive symptoms (Han & Kim, 2022). The results align with existing literature showing that ACT leads to significant improvements in mood, emotional regulation, and cognitive reappraisal, particularly in women with mood-related vulnerabilities (Vafadar et al., 2021).

The significant decline in cognitive bias scores further supports the unique mechanisms of ACT. Cognitive biases such as catastrophizing, overgeneralization, and selective abstraction often perpetuate depressive symptoms by distorting reality and reinforcing negative self-beliefs. In ACT, cognitive defusion techniques help individuals disentangle from these maladaptive thought patterns, recognizing them as mental events rather than objective truths. This shift reduces the believability and behavioral impact of biased thinking, which is consistent with studies highlighting ACT's ability to improve metacognitive awareness and cognitive flexibility (Cojocaru et al., 2024; Jaramillo et al., 2024).

The present findings echo those of (Anvari, 2023), who found that ACT significantly improved cognitive-emotional integration and reduced maladaptive rumination in participants with depressive disorders. Similarly, (Fang et al., 2023) demonstrated that ACT was associated with marked decreases in cognitive distortions and increased emotional resilience in women facing interpersonal stressors. The ability of ACT to address both emotional dysregulation and cognitive rigidity positions it as an

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integrative and powerful intervention for multifaceted psychological conditions like depression.

Another study conducted by (Pour Mahdi Ganji & Ranjbar, 2023) revealed that ACT led to decreased automatic negative thoughts and enhanced perspective-taking abilities in clients with high levels of cognitive fusion. This aligns with the current study's finding that ACT not only reduced cognitive biases but also maintained these changes at follow-up, indicating lasting metacognitive restructuring. The sustained improvement suggests that ACT's core processes—especially defusion and values-based action—facilitate long-term transformation beyond symptom suppression.

The effectiveness of ACT in this study may also be attributed to its alignment with cultural and contextual dynamics. In Iranian society, where traditional gender roles and family obligations can intensify emotional burdens for married women, a therapy model that emphasizes acceptance and values-consistent living may be particularly relevant. Rather than challenging deeply ingrained cultural beliefs head-on, ACT provides women with the tools to live more flexibly within their roles, choosing behaviors that align with personal values while reducing the internal struggle with distressing thoughts (Taghvaeinia et al., 2024).

Moreover, the cognitive-behavioral component of ACT, while more process-oriented than traditional CBT, still provides structure and skill-building, which may enhance engagement among individuals accustomed to directive therapeutic formats. As demonstrated by (Gibson Watt et al., 2023), ACT is often perceived as more accessible and less confrontational for clients who struggle with cognitive restructuring or who have limited psychological insight, making it suitable for diverse populations including married women.

The outcomes of this research are further supported by findings from (Beygi et al., 2023), who showed that ACT significantly reduced both cognitive and emotional symptoms in Iranian clinical samples. These consistent findings across multiple studies emphasize the transdiagnostic utility of ACT in managing not just depression, but the underlying cognitive-affective structures that sustain it. The intervention's success in the current study strengthens the case for ACT as a culturally adaptable and clinically effective model in Iranian therapeutic settings.

In the broader context of third-wave cognitive behavioral therapies, the results of this study also align with the theoretical framework that prioritizes context over content, and processes over symptoms. (Rauwenhoff et al., 2023) noted that ACT's emphasis on mindfulness and behavioral commitment makes it particularly effective for individuals experiencing internal conflicts between personal values and emotional suffering. This dual targeting of cognitive and emotional rigidity could explain the substantial improvement observed in both variables in the experimental group.

The findings also correspond with studies on ACT's use in improving executive functioning and emotional regulation, as evidenced by (Nicolescu et al., 2024), who reported improved decision-making and working memory in participants undergoing ACT. Such findings suggest that ACT may not only reduce symptoms but also enhance cognitive functioning in ways that support long-term recovery and psychological resilience. Given the overlap between executive dysfunction and depression, this may be particularly relevant for married women managing multiple life roles.

Additionally, the maintenance of treatment gains at follow-up supports the argument made by (Ma et al., 2023) that ACT promotes self-sustaining changes by equipping individuals with lifelong skills in mindfulness, defusion, and value-oriented action. The absence of significant symptom rebound suggests that participants internalized ACT's strategies and continued to apply them even in the absence of therapist support. This durability is a valuable feature in resource-limited settings where extended therapy may not be feasible.

Importantly, the minimal change observed in the control group further highlights the efficacy of the ACT intervention. These results are consistent with findings by (Bahodirovna et al., 2023), who noted that untreated participants often show little spontaneous improvement in cognitive or emotional variables over time, reinforcing the need for structured intervention.

5. Suggestions and Limitations

Despite the promising results, this study has several limitations. First, the small sample size (n = 30) limits the generalizability of findings. Although statistically significant results were observed, larger samples across diverse demographic groups would enhance external validity. Second, the participants were all recruited from counseling centers in Tehran, which may not reflect the experiences of women in rural areas or from different cultural backgrounds. Third, reliance on self-report measures introduces the possibility of response bias,

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especially in collectivist cultures where emotional disclosure may be inhibited. Finally, the absence of an active control group (e.g., receiving another form of therapy) limits the ability to attribute changes solely to ACT's unique components.

Future research should consider expanding the sample size and recruiting participants from various geographical and socioeconomic backgrounds to increase representativeness. Longitudinal designs with multiple follow-up points beyond five months would also help assess the sustainability of treatment effects over time. Additionally, incorporating objective measures of cognitive bias (e.g., behavioral tasks or reaction time paradigms) could provide a more nuanced understanding of how ACT affects cognitive processing. Comparative studies evaluating ACT alongside other therapies such as CBT or Dialectical Behavior Therapy would be useful in identifying specific mechanisms of change. Finally, future studies could examine the mediating role of psychological flexibility or mindfulness in the relationship between ACT and depression reduction.

Clinicians working with married women experiencing depression and cognitive biases should consider integrating ACT into their therapeutic practice, particularly when clients exhibit resistance to traditional cognitive restructuring techniques. ACT's emphasis on acceptance, mindfulness, and values-based living offers a compassionate and flexible alternative that aligns well with the sociocultural realities of many women. Group formats may also be used to foster shared experiences and cost-effective delivery. Therapists are encouraged to adapt ACT metaphors and exercises to culturally relevant themes to enhance engagement and resonance. Lastly, mental health institutions and community organizations should promote training in ACT among professionals to broaden access to this effective therapeutic model.

Authors' Contributions

All authors have contributed significantly to the research process and the development of the manuscript.

Declaration

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

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

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

References

Ahmad Othman, A., Wan Jaafar, W. M., Zainudin, Z. N., & Yusop, Y. M. (2023). Effectiveness of cognitive behavior therapy and acceptance and commitment therapy on depression and anxiety among emerging adults in Malaysia. *Current Psychology*, 1-18. https://doi.org/10.1007/s12144-023-05064-4

Anvari, M. H. (2023). *The Effectiveness of group-based acceptance and commitment therapy on pain index, stress, anxiety, depression, catastrophizing & life satisfaction in patients with chronic pain* M.A. Thesis in clinical psychology, University of Isfahan, Faculty of Educational Sciences & Psychology, Department of Psychology].

Bahodirovna, A. D., Abdullah, S. M. H., Razaq, A. A., Tawfeeq Alghazali, T., Jalil, S. H., Al-Hamdani, M. M., Mohsin, R. M., & Fkhry, F. A. (2023). The Effects of Acceptance and Commitment Therapy on Anxiety and Depression in Patients with Asthma. *Int J Body Mind Cult*, *10*(4). https://jnip.ir/article-1-735-fa.html

Beygi, Z., Tighband Jangali, R., Derakhshan, N., Alidadi, M., Javanbakhsh, F., & Mahboobizadeh, M. (2023). An Overview of Reviews on the Effects of Acceptance and Commitment Therapy (ACT) on Depression and Anxiety. *Iranian Journal of Psychiatry*. https://doi.org/10.18502/ijps.v18i2.12373

Cojocaru, C. M., Popa, C. O., Schenk, A., Suciu, B. A., & Szasz, S. (2024). Cognitive-behavioral therapy and acceptance and commitment therapy for anxiety and depression in patients with fibromyalgia: a systematic review and meta-analysis. *Med Pharm Rep*, *97*(1), 26-34. https://doi.org/10.15386/mpr-2661

Enayati Shabkolai, M., Enayati Shabkalai, M., & Bagheri Dadokolai, M. (2023). The Effectiveness of Treatment based on Acceptance and Commitment on Social Adaptation, Academic Self-Regulation and Cognitive Flexibility of Students with Specific Learning Disorders. *International*

AFTJ Applied Family Therapy Journal
E-ISSN: 3041-8798

Journal of Education and Cognitive Sciences, *4*(1), 33-41. https://doi.org/10.61838/kman.ijecs.4.1.5

Fang, P., Tan, L., Cui, J., & Yu, L. (2023). Effectiveness of Acceptance and Commitment Therapy for people with advanced cancer: A systematic review and meta-analysis of randomized controlled trials. *Journal of Advanced Nursing*, *79*(2), 519-538. https://doi.org/10.1111/jan.15543

Ghorbanikhah, E., Mohammadyfar, M. A., Moradi, S., & Delavarpour, M. (2023). The Effectiveness of Acceptance-and-Commitment-Based Parenting Training on Mood and Anxiety in Children and Self-compassion in Parents. *PCP*, *11*(1), 81-92. https://doi.org/10.32598/jpcp.11.1.860.1

Gibson Watt, T., Gillanders, D., Spiller, J. A., & Finucane, A. M. (2023). Acceptance and Commitment Therapy (ACT) for people with advanced progressive illness, their caregivers and staff involved in their care: A scoping review. *Palliative Medicine*, *37*(8), 1100-1128. https://doi.org/10.1177/02692163231183101

Grau, P. P., Sripada, R. K., Ganoczy, D., Weinstein, J. H., & Pfeiffer, P. N. (2023). Outcomes of Acceptance and Commitment Therapy for depression and predictors of treatment response in Veterans Health Administration patients. *Journal of affective disorders*, *323*(4), 826-833. https://doi.org/10.1016/j.jad.2022.12.025

Han, A., & Kim, T. H. (2022). Efficacy of Internet-Based Acceptance and Commitment Therapy for Depressive Symptoms, Anxiety, Stress, Psychological Distress, and Quality of Life: Systematic Review and Meta-analysis [Review]. *J Med Internet Res*, *24*(12), e39727. https://doi.org/10.2196/39727

Jaramillo, V. G., Herrera, M. C. A., Grisales, A. M., Martínez, D. A. L., & Ramirez, O. M. C. (2024). The Effect of an Acceptance and Commitment Therapy-Based Intervention on Executive Functioning and Risk of Suicidal Behavior in Adults with Depression. *Mediterranean Journal of Clinical Psychology*, *12*(3). https://www.researchgate.net/publication/388117226_The_Effect_of_an_Acceptance_and_Commitment_Therapy-Based_Intervention_on_Executive_Functioning_and_Risk_of_Suicidal_Behavior_in_Adults_with_Depression

Ma, J., Ji, L., & Lu, G. (2023). Adolescents' experiences of acceptance and commitment therapy for depression: An interpretative phenomenological analysis of good-outcome cases. *Frontiers in psychology*, *14*, 1050227. https://doi.org/10.3389/fpsyg.2023.1050227

Nicolescu, S., Secară, E.-C., Jiboc, N. M., & Băban, A. (2024). Oncovox: A randomised controlled trial of a web-based acceptance and commitment therapy for breast cancer patients. *Journal of Contextual Behavioral Science*, *32*, 100729. https://doi.org/10.1016/j.jcbs.2024.100729

Petersen, J. M., Davis, C. H., Renshaw, T. L., Levin, M. E., & Twohig, M. P. (2023). School-Based Acceptance and Commitment Therapy for Adolescents With Anxiety: A Pilot Trial. *Cognitive and Behavioral Practice*, *30*(3), 436-452. https://doi.org/10.1016/j.cbpra.2022.02.021

Pour Mahdi Ganji, Y. Z. J. S., & Ranjbar. (2023). Effectiveness of Acceptance and Commitment-Based Group Therapy on Reducing Stress and Depression Symptoms in Mothers of Children with Separation Anxiety Disorder. *Applied Family Therapy*, *4*(3), 247-260. https://doi.org/10.61838/kman.aftj.4.3.16

Rauwenhoff, J. C., Bol, Y., van Heugten, C. M., Batink, T., Geusgens, C. A., van den Hout, A. J., Smits, P., Verwegen, C. R., Visser, A., & Peeters, F. (2023). Acceptance and commitment therapy for people with acquired brain injury: Rationale and description of the BrainACT treatment. *Clinical Rehabilitation*, *37*(8), 1011-1025. https://doi.org/10.1177/02692155231154124

Taghvaeinia, A., Karami, M., & Azizi, A. (2024). Comparison of the effect of dialectical behavior therapy, acceptance and commitment therapy mindfulness-based Stress reduction on irritable bowel syndrome symptoms, quality of life, anxiety and depression: A pilot randomized controlled trial. *The Psychiatric Quarterly*, *95*(1), 53-68. https://doi.org/10.1007/s11126-023-10058-3

Vafadar, A., Mirzamani Bafghi, S. M., & Jafari Roshan, M. (2021). Comparing the effectiveness of acceptance and commitment-based training and emotional schema therapy on attentional bias, intolerance of uncertainty, and cognitive avoidance in women with generalized anxiety disorder. *Journal of Disability Studies*, *11*(194), 3-17. https://jdisabilstud.org/article-1-2176-fa.html

Vahabi, M., Pui-Hing Wong, J., Moosapoor, M., Akbarian, A., & Fung, K. (2022). Effects of Acceptance and Commitment Therapy (ACT) on Mental Health and Resiliency of Migrant Live-in Caregivers in Canada: Pilot Randomized Wait List Controlled Trial [Original Paper]. *JMIR Form Res*, *6*(1), e32136. https://doi.org/10.2196/32136

Zhang, Z., Leong Bin Abdullah, M. F. I., Shari, N. I., & Lu, P. (2022). Acceptance and commitment therapy versus mindfulness-based stress reduction for newly diagnosed head and neck cancer patients: A randomized controlled trial assessing efficacy for positive psychology, depression, anxiety, and quality of life. *PLoS One*, *17*(5), e0267887. https://doi.org/10.1371/journal.pone.0267887