KMANPUB | Health Nexus Vol. 3 No. 4 (2025): 1-10

Article history:
Received 11 July 2025
Revised 21 September 2025
Accepted 27 September 2025
Final Publication 01 October 2025

Comparison of the Effectiveness of Cognitive-Behavioral Therapy and Short-Term Solution-Focused Therapy on Distress Tolerance in Pregnant Women

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A r t i c l e I n f o

Article type:
Original Research

How to cite this article:
Irvani, F., Bolghan-Abadi, M., & Mansouri. (2025). Comparison of the Effectiveness of Cognitive-Behavioral Therapy and Short-Term Solution-Focused Therapy on Distress Tolerance in Pregnant Women. *Health Nexus, 3*(4), 1-10.
https://doi.org/10.61838/kman.hn.3.4.13

A B S T R A C T

The present study aimed to compare the effectiveness of cognitive-behavioral therapy (CBT) and short-term solution-focused therapy (SFBT) on distress tolerance in pregnant women in 2024. This applied research employed an experimental design with pretest–posttest and follow-up assessments, including a control group. The study population comprised all pregnant women who visited the Comprehensive Health Service Center and obstetrics specialists in Semnan and who became pregnant either naturally or through assisted reproductive methods in 2021 and 2022. Using a convenience sampling method, 66 pregnant women were selected. Data were collected using the standardized Distress Tolerance Scale (DTS) by Simons and Gaher (2005) and analyzed with SPSS version 27. The CBT intervention group participated in eight weekly sessions of 90 minutes each, while the SFBT intervention group attended six weekly sessions of 90 minutes each. The control group was placed on a waiting list. The results showed that both CBT and short-term SFBT significantly improved distress tolerance in pregnant women, indicating the effectiveness of both therapeutic approaches. Additionally, no statistically significant difference was found between the two intervention groups regarding their impact on increasing distress tolerance. Based on the findings, both CBT and short-term SFBT were effective in enhancing distress tolerance and demonstrated stable effectiveness over time. Therefore, it is recommended that behavioral therapy practitioners incorporate the results of this study into their therapeutic programs

Keywords: *distress tolerance, cognitive-behavioral therapy (CBT), short-term solution-focused therapy (SFBT), pregnant women*

1. Introduction

Pregnancy is widely recognized as a transitional life stage that imposes profound biological, psychological, and social changes on women, often making them vulnerable to psychological distress (1, 2). During this period, hormonal fluctuations, physiological demands, and uncertainties about childbirth and parenting contribute to elevated emotional vulnerability (2, 3). Research shows that psychological distress during pregnancy is associated with adverse maternal outcomes, such as heightened anxiety and depression, and increased risk of preterm birth, low birth weight, and impaired fetal brain development (1, 2). Moreover, early-life stress and distress tolerance deficits are

closely linked to maladaptive emotional processing and long-term mental health disorders (3). As such, the ability to tolerate distress—a capacity to withstand and adapt to emotional discomfort without resorting to avoidance or maladaptive coping—is vital for maternal well-being and healthy pregnancy outcomes (4, 5).

Distress tolerance is conceptualized as the capacity to endure negative psychological states while maintaining goal-directed behavior (6). Low distress tolerance has been associated with maladaptive coping strategies, including rumination, impulsivity, and emotional dysregulation (7, 8). Pregnant women with reduced distress tolerance may experience heightened vulnerability to anxiety and depressive symptoms, affecting not only their own well-being but also fetal health (1, 2). Importantly, empirical evidence highlights that targeted psychological interventions can enhance distress tolerance, thereby buffering the adverse effects of stress during pregnancy (9, 10).

Among the various therapeutic frameworks, cognitive-behavioral therapy (CBT) has emerged as one of the most empirically supported interventions for psychological distress and related difficulties (11, 12). CBT emphasizes the identification and restructuring of maladaptive cognitions and behaviors, thereby improving emotional regulation and coping skills (11). Extensive research supports CBT's efficacy in enhancing distress tolerance across clinical populations, including individuals with cardiovascular conditions (4), substance-related challenges (13, 14), and psychiatric disorders (8, 15). For example, integrating mindfulness-based strategies into CBT has shown promising effects in reducing psychological distress and intolerance of uncertainty (10). Similarly, emotion regulation–enhanced CBT has demonstrated meaningful outcomes in improving tolerance of distress and emotion control (6).

CBT has also been studied in perinatal contexts, where it effectively reduces anxiety, stress, and depression among pregnant women (9). Interventions grounded in CBT frameworks not only alleviate maternal distress but also foster resilience and coping mechanisms, leading to better psychological adaptation during pregnancy (13, 16). Additionally, CBT-based interventions have demonstrated long-term stability in emotional well-being, indicating their potential to promote sustained improvement (17, 18). These findings underscore CBT as a robust therapeutic option to improve psychological functioning and distress tolerance during pregnancy.

Another widely applied approach is short-term solution-focused therapy (SFBT), which is a goal-oriented, resource-based intervention emphasizing individuals' strengths and solutions rather than problems (19, 20). SFBT is structured around the belief that identifying exceptions to problems and envisioning desired outcomes can foster adaptive coping and enhance psychological flexibility (21). Its brevity and strength-based orientation make SFBT particularly appealing in perinatal settings, where timely interventions are crucial. SFBT has shown significant promise in improving distress tolerance and emotion regulation across diverse populations, including patients with chronic medical conditions (22, 23) and adolescents experiencing psychological vulnerability (19, 24). Evidence indicates that solution-focused techniques help clients reframe stressors, cultivate hope, and mobilize internal and social resources, contributing to improved tolerance of distress (20, 21).

SFBT's effectiveness in pregnancy-related distress is also supported by studies demonstrating its ability to improve resilience, flexibility, and adaptive coping in vulnerable populations (25). In women facing chronic stressors, such as those with high-risk pregnancies or complicated psychosocial contexts, SFBT has been reported to foster rapid psychological stabilization and strengthen coping capacity (22, 23). Furthermore, its client-centered and future-focused framework may empower pregnant women to envision positive childbirth experiences and adapt to uncertainty, thereby increasing their distress tolerance (20).

Although both CBT and SFBT have demonstrated considerable efficacy in enhancing distress tolerance and reducing psychological symptoms, comparative research between these two modalities in pregnant populations remains limited. Prior studies have frequently examined these approaches separately and in distinct populations, such as adolescents with suicidal ideation (8), patients with bulimia nervosa (18), and women coping with marital infidelity (16). A few studies have compared CBT and other third-wave approaches (e.g., acceptance and commitment therapy or compassion-focused therapy) (24, 26), but there is a paucity of data on head-to-head comparisons between CBT and SFBT among pregnant women. Such research is critical because pregnancy presents unique psychological

Health Nexus
E-ISSN: 2981-2569

and physiological dynamics that may influence the effectiveness of therapeutic interventions.

Moreover, the current literature emphasizes the importance of tailoring psychological interventions to the contextual stressors and developmental stage of pregnancy (1, 2). For example, pregnant women often experience heightened anticipatory anxiety, body image concerns, and role transitions, all of which can undermine distress tolerance and emotional resilience (7, 27). Interventions that strengthen adaptive coping and reduce vulnerability to stress during this sensitive period could have long-term benefits for maternal and fetal health outcomes (2, 3). Identifying which therapeutic model—CBT or SFBT—is more effective or equally beneficial in enhancing distress tolerance can guide clinicians and perinatal mental health specialists in delivering evidence-based, time-efficient, and patient-centered care.

In addition, the growing integration of culturally adapted psychological interventions is vital in ensuring relevance and acceptability (15, 26). Cultural and contextual adaptation of CBT and SFBT has proven essential in non-Western contexts, where family structures, social support, and coping norms influence treatment outcomes (10, 22). The flexibility of SFBT's strengths-based approach and the structured, skills-based nature of CBT make them particularly promising for adaptation to diverse cultural settings, including Iranian perinatal populations (13, 14).

Furthermore, advances in technology and telehealth have expanded access to CBT and SFBT, with internet-based delivery showing potential in increasing treatment reach, especially during global crises such as the COVID-19 pandemic (7, 12). However, face-to-face group interventions continue to offer benefits such as peer support, normalization of experiences, and improved therapeutic alliance, which may be crucial for pregnant women navigating psychosocial stressors (6, 26).

Overall, while both CBT and SFBT are recognized as effective frameworks to enhance distress tolerance and reduce psychological distress, evidence directly comparing their outcomes among pregnant women remains scarce and fragmented. Clarifying the relative or equivalent effectiveness of these two brief, practical interventions could provide a valuable evidence base for maternal mental health services and support early, cost-effective prevention of pregnancy-related psychological complications (24, 25).

Given the psychological vulnerability during pregnancy and the need for effective, culturally adaptable interventions, this study aimed to compare the effectiveness of cognitive-behavioral therapy (CBT) and short-term solution-focused therapy (SFBT) on distress tolerance in pregnant women.

2. Methods and Materials

2.1. Study Design and Participants

The present study was applied in purpose and experimental in method, utilizing a pretest–posttest–follow-up design with a control group. The statistical population comprised all pregnant women who visited the Comprehensive Health Service Center and obstetrics specialists in Semnan and became pregnant during 2023 and 2024. The minimum sample size, based on Cohen's (1988) guidelines with an effect size of 0.42, a statistical power of 0.90, and a 95% confidence level, was estimated to be 64 participants. Accordingly, 66 pregnant women were selected using convenience sampling and randomly assigned, through block randomization, to three groups: 22 participants in the cognitive-behavioral therapy (CBT) group, 22 in the short-term solution-focused therapy (SFBT) group, and 22 in the control group (who did not receive any intervention). It should be noted that each intervention group was further divided into two parallel subgroups of 11 participants to facilitate group sessions. In other words, the 22 participants in the CBT condition attended the intervention in two parallel subgroups of 11, and similarly, the 22 participants in the SFBT condition participated in two parallel subgroups of 11.

Inclusion criteria for participants were: providing informed consent to participate in the study, not simultaneously participating in another research project, no history of severe medical conditions, no substance addiction, and no severe personality disorders. Exclusion criteria were absence from more than two intervention sessions and withdrawal of consent to continue participation.

After obtaining the necessary ethical and administrative approvals, the study objectives and procedures were fully explained to the participants. Informed consent was obtained before data collection. To maintain confidentiality, personal

Health Nexus
E-ISSN: 2981-2569

identifying questions were avoided, and participants were assured that their information would remain confidential and used solely for research purposes. Participants were also informed that they could request access to the study findings.

At baseline, demographic data, including age, education level, number of children, and gestational age, were collected through a demographic questionnaire. The Distress Tolerance Scale was administered at pretest, posttest, and at an eight-week follow-up. Instructions for completing the questionnaires were clearly explained, and participants were asked to respond carefully and attentively. Responses on the Likert scale were scored, summed, and averaged to calculate the total distress tolerance score for each participant and the mean score for each group.

The CBT group received eight weekly sessions of 90 minutes each, and the SFBT group received six weekly sessions of 90 minutes each. Participants in the control group were placed on a waiting list. Data were collected from all three groups across the three time points (pretest, posttest, and eight-week follow-up). The CBT sessions followed the structure outlined by Sperry (2009).

2.2. Measure

Distress Tolerance Scale (DTS; Simons & Gaher, 2005): This self-report instrument, developed to measure emotional distress tolerance, contains 15 items and four subscales: tolerance of emotional distress, absorption by negative emotions, subjective appraisal of distress, and regulation efforts to alleviate distress. Items are rated on a 5-point Likert scale (1 = strongly agree to 5 = strongly disagree). Higher scores indicate greater distress tolerance. Reported Cronbach's alpha coefficients for the subscales are .72, .82, .78, and .70, with an alpha of .82 for the total scale. The intraclass correlation coefficient after six months was .61. Discriminant validity has been demonstrated through correlations with the negative and positive affect subscales of the Positive and Negative Affect Schedule (PANAS; Clark & Watson), reported as −.59 and .26, respectively. In an Iranian sample, Azizi, Shams, and Mirzaei reported a Cronbach's alpha of .67 and test–retest reliability of .79.

2.3. Interventions

The cognitive-behavioral therapy intervention was implemented in eight structured weekly sessions of 90 minutes each, delivered in a group format to foster cohesion and peer learning. The first session aimed to explain the rationale for participation, establish group norms, encourage commitment, and introduce the cognitive-behavioral framework. The second session focused on helping participants identify and differentiate thought patterns, particularly distinguishing constructive versus destructive and necessary versus unnecessary thoughts; participants completed a daily mood scale and listed positive and negative thoughts. The third session taught common cognitive distortions (e.g., mental filtering, mind reading, fortune telling, overgeneralization, labeling, self-blame, minimization and magnification, and all-or-nothing thinking) and introduced the ABCD method for challenging irrational beliefs, with continued use of the daily mood scale. The fourth session explored the role of daily activities on mood, guiding participants to identify and monitor their own pleasurable or meaningful tasks. The fifth session emphasized enriching daily life with rewarding, soothing activities and included a 95-item checklist of pleasurable activities to be tracked weekly alongside the mood scale. The sixth session focused intensively on goal setting, clarifying vague versus specific goals, time management, future planning, and Maslow's hierarchy of needs; participants identified their key goals and reflected on objective and subjective realities. The seventh session addressed interpersonal communication, assertiveness training, and the impact of social interactions on mood, helping participants recognize maladaptive patterns such as avoidance or oversensitivity to rejection and criticism. The final session reviewed the therapeutic process, consolidated cognitive and behavioral changes, reinforced transfer of learned skills to daily life, and formally closed the group with relapse-prevention strategies.

The short-term solution-focused therapy followed the six-session "diamond approach," emphasizing clients' strengths, successes, and future goals in a culturally sensitive, resource-based manner. The first session focused on rapport building and goal clarification through culturally relevant ice-breakers and psychoeducation on self-efficacy, couple adaptability, and emotion regulation; participants listed aspects of their lives they valued and wished to preserve. The second session promoted envisioning a preferred future by using scaling (0–10) to track change,

Health Nexus
E-ISSN: 2981-2569

recognizing previous positive steps, and sharing encouraging group feedback; participants noted five signs of personal improvement during the week. The third session reinforced positive change by inviting participants to recall and analyze recent successful experiences in managing emotions or relationships and discuss their impact. The fourth session focused on exploring and learning from past successes, identifying helpful conditions, and recognizing personal and environmental resources that supported coping. The fifth session targeted coping strategies by identifying supportive people and inner strengths, discussing typical obstacles to change, and planning how to reengage past supportive resources. The final session reviewed progress, celebrated achievements, reinforced commitment to sustaining change, and guided participants in designing personalized maintenance plans with clear goals, motivational strategies, and celebration of milestones to protect gains and promote long-term resilience.

2.4. Data Analysis

Data were analyzed using both descriptive statistics (mean and standard deviation) and inferential statistics. Repeated measures analysis of variance (ANOVA) was employed to evaluate changes across the three measurement points. All analyses were conducted using SPSS version 27.

3. Findings and Results

The minimum age of the respondents was 23 years, and the maximum age was 46 years. The mean ± standard deviation of participants' age was 33.92 ± 6.045. Regarding the educational level of the respondents, the lowest frequency belonged to master's degree and above (6.06%), and the highest frequency belonged to bachelor's degree (45.45%). Table 3 presents the descriptive findings on distress tolerance across the study groups.

Table 1

Between-Group Comparison of Respondents in the Pretest Phase

Variable	Study Group	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Follow-up Mean	Follow-up SD
Distress Tolerance	Control	36.82	3.71	36.86	4.68	36.64	4.65
	CBT Group	36.95	5.07	46.41	6.34	46.82	6.17
	SFBT Group	36.91	3.89	49.91	5.28	49.55	4.72

For conducting repeated measures analysis of variance (ANOVA), it is essential to examine the assumptions related to the data to ensure the validity and accuracy of the results. In this study, prior to the main statistical tests, assumptions regarding the normality of data distribution, homogeneity of variances, and sphericity of the covariance matrix were evaluated.

To detect outliers, a boxplot analysis was conducted, indicating no outliers among the collected samples and showing that all values for the study variables were within the standard range. Regarding the normal distribution of distress tolerance scores, the Kolmogorov–Smirnov and Shapiro–Wilk tests yielded non-significant results ($p > .05$), and skewness and kurtosis coefficients were within the acceptable range (−2 to +2), confirming normality of the pretest data.

Levene's test was used to check the homogeneity of variances, showing that the error variances at the three measurement points were equal and not significantly different ($p > .05$). Moreover, the robust test statistic indicated a non-significant result for distress tolerance ($p = .67$), confirming group homogeneity and supporting the use of repeated measures ANOVA.

Next, Mauchly's test of sphericity showed that the assumption of sphericity was violated ($p < .05$) for distress tolerance. Therefore, the Greenhouse–Geisser correction was applied to adjust the repeated measures ANOVA results.

Repeated measures ANOVA was then conducted to compare the mean distress tolerance scores across the three time points among the experimental and control groups.

Health Nexus
E-ISSN: 2981-2569

Table 2

Repeated Measures ANOVA Results for Main and Interaction Effects on Emotional Distress Tolerance

Source of Variation	MS	F	df	p	Effect Size	Power
Group Effect	1358.066	19.268	2	< .001	.380	1.000
Time Effect	1628.179	484.553	1.508	< .001	.885	1.000
Time × Group Interaction	439.997	130.945	3.016	< .001	.806	1.000

The results of repeated measures ANOVA indicated that the main effect of group was significant ($p < .05$), the main effect of time was significant ($p < .05$), and the interaction effect of time and group was also significant ($p < .05$). This means that there were significant differences among pretest, posttest, and follow-up measurements. The effect size showed that 38% of the variance in distress tolerance was attributable to group membership, 88.5% to time changes, and 80.6% to the time × group interaction. Post hoc Bonferroni pairwise comparisons were conducted to further examine these differences.

Table 3

Bonferroni Post Hoc Test for Emotional Distress Tolerance (Time Comparisons)

Baseline Phase (Mean)	Compared Phase (Mean)	Mean Difference	SE	p
Pretest	Posttest	−7.500	0.185	< .001
Pretest	Follow-up	−7.439	0.298	< .001
Posttest	Follow-up	−0.061	0.328	1.000

According to Table 3, the difference between pretest and posttest was significant ($p < .05$), with distress tolerance scores increasing at posttest. However, the difference between posttest and follow-up was not significant ($p > .05$), indicating that the improvement remained stable over time.

To further investigate differences across the three groups, Bonferroni pairwise comparisons of group means at each time point were performed.

Table 4

Bonferroni Pairwise Comparisons of Emotional Distress Tolerance Among Groups

Dependent Variable	Group (I)	Group (J)	Mean Difference (I−J)	SE	p	95% CI Lower	95% CI Upper
Distress Tolerance	Control	CBT	−6.62	1.461	< .001	−10.22	−3.03
	Control	SFBT	−8.68	1.461	< .001	−12.28	−5.09
	CBT	SFBT	−2.06	1.461	.490	−5.66	1.53

The results showed significant differences between the control group and each of the two intervention groups ($p < .05$), indicating that both CBT and SFBT significantly increased distress tolerance compared to the control condition. Although the mean improvement in distress tolerance was slightly higher in the SFBT group compared to the CBT group, this difference was not statistically significant ($p > .05$).

In summary, both therapeutic interventions were effective in increasing distress tolerance among pregnant women, and their positive effects remained stable over time.

4. Discussion and Conclusion

The present study investigated and compared the effectiveness of cognitive-behavioral therapy (CBT) and short-term solution-focused therapy (SFBT) in improving distress tolerance among pregnant women. The findings

Health Nexus
E-ISSN: 2981-2569

indicated that both CBT and SFBT significantly increased distress tolerance from pretest to posttest, and these effects remained stable at the eight-week follow-up. Although the SFBT group demonstrated a slightly greater mean increase compared to the CBT group, the difference was not statistically significant. These results provide robust support for the clinical usefulness of both CBT and SFBT as effective, brief, and practical interventions to enhance distress tolerance during pregnancy.

The significant improvement in distress tolerance among participants receiving CBT is consistent with the extensive body of evidence demonstrating CBT's capacity to reduce psychological vulnerability and enhance adaptive coping. CBT is designed to help individuals recognize and restructure maladaptive cognitive patterns, develop emotional regulation strategies, and adopt goal-oriented behavioral responses (11, 12). Our findings are in line with studies showing that CBT improves distress tolerance in various populations, including women with substance-related difficulties (13, 14), individuals with mood and anxiety disorders (4, 15), and patients experiencing high psychological burden (8). The stability of CBT's effects at follow-up in our sample mirrors prior evidence that CBT fosters durable cognitive and emotional changes (6, 26). Specifically, for pregnant women, CBT's structured skill-building can be crucial in preparing them to cope with pregnancy-related uncertainties, hormonal shifts, and postpartum challenges (9).

Our findings also confirmed the significant positive effect of SFBT on distress tolerance, which is consistent with the theoretical framework of SFBT and its growing empirical support. SFBT aims to shift clients' attention from problem-saturated narratives to solution-focused thinking and the identification of strengths, resources, and previous successful coping strategies (19, 20). The improvements in distress tolerance among pregnant women receiving SFBT in this study align with earlier research showing the effectiveness of SFBT in populations experiencing chronic stress and psychological vulnerability. For instance, SFBT significantly increased resilience, cognitive flexibility, and tolerance for negative emotions in adolescents with obsessive-compulsive disorder (24) and improved coping and emotional stability among adolescents exposed to family substance use (23). Similarly, SFBT enhanced pain tolerance and psychological adjustment in women with multiple sclerosis, a population that, like pregnant women, experiences chronic physical and emotional demands (22, 25). These findings suggest that SFBT's focus on future orientation and empowerment may be particularly effective in helping pregnant women reframe distressing experiences and anticipate positive coping strategies.

Interestingly, while SFBT showed slightly higher mean improvements in distress tolerance compared to CBT, this difference was not statistically significant. This outcome may reflect the conceptual overlap between the two therapies in fostering self-efficacy and adaptive coping. Both CBT and SFBT encourage clients to actively engage with their stressors and utilize cognitive and behavioral resources to manage distress (11, 19). Moreover, the non-significant difference suggests that the brevity of SFBT does not necessarily diminish its clinical effectiveness when compared to the more structured and skills-intensive CBT. This finding is in line with prior research where SFBT performed comparably to CBT in addressing psychological distress and promoting resilience, particularly in time-limited interventions (21, 26).

The results also add to the growing body of evidence that both therapies can be culturally and contextually adapted for pregnant populations in non-Western settings. In our sample, culturally informed modifications, such as using relevant examples and culturally sensitive group dynamics, may have enhanced the acceptability and impact of the interventions. This aligns with previous studies emphasizing the importance of adapting CBT and SFBT to the cultural norms, family structures, and social contexts of Iranian populations (10, 13, 14). Such adaptations may help explain the strong retention and sustained gains observed at follow-up.

Another critical implication of the findings is that pregnancy itself constitutes a unique psychological context where both structured and solution-focused approaches can be valuable. Pregnant women face heightened anticipatory anxiety, body image concerns, and role transitions, making them susceptible to distress (1, 27). Our results, together with earlier work showing that psychological distress during pregnancy can adversely affect fetal brain development (2) and lead to adverse maternal and perinatal outcomes (1), highlight the urgent need for effective psychological

E-ISSN: 2981-2569

interventions during this vulnerable period. By enhancing distress tolerance, both CBT and SFBT may serve as protective interventions to mitigate the downstream consequences of prenatal distress.

The sustained improvement in distress tolerance at follow-up is particularly noteworthy. This suggests that the skills learned during both therapies were internalized and maintained beyond the intervention period, consistent with prior longitudinal findings (6, 18). This stability is critical for pregnant women, as it implies that early psychological intervention could have enduring benefits, potentially reducing postpartum depression and anxiety risk (9).

It is also important to note that the present study's findings converge with broader evidence about the flexibility of these therapeutic approaches across psychological domains. CBT has been successfully integrated with mindfulness (10) and compassion-focused elements (16) to target distress tolerance, while SFBT has been used effectively in clinical groups from cancer patients (21) to individuals with chronic pain (22). This suggests that combining or adapting these models could further optimize outcomes for pregnant women with varying psychosocial needs.

Another explanation for the comparable effectiveness of CBT and SFBT might be the group-based format of both interventions in this study. Group therapy has inherent therapeutic factors such as peer support, shared experiences, and normalization, which can amplify treatment effects and help sustain outcomes (6, 26). The safe, shared environment might have enhanced motivation and skill application for all participants, potentially minimizing differences between the approaches.

Finally, the study contributes to an ongoing discourse on the accessibility and cost-effectiveness of psychological interventions for pregnant women. CBT, while highly effective, can be time-intensive and require specialized training (11). SFBT, on the other hand, is shorter and more resource-efficient while still showing comparable outcomes (19, 20). This suggests that healthcare providers with limited resources could consider SFBT as a viable alternative or complement to CBT for maternal mental health care, especially in primary and community-based settings (23, 24).

Despite its strengths, this study has several limitations. First, the sample was recruited using convenience sampling from a single urban health center, which may limit the generalizability of the findings to broader and more diverse populations of pregnant women. Participants were relatively homogeneous regarding socioeconomic status and cultural background, and future research should include more varied populations to capture different psychosocial and cultural contexts. Second, the study relied solely on self-report measures, which, while widely validated, are subject to social desirability and response bias. Incorporating multi-informant assessments or psychophysiological indicators of stress could provide a more comprehensive understanding of intervention effects. Third, the follow-up period was limited to eight weeks; although this time frame provided useful insight into short-term maintenance, longer follow-up assessments are needed to determine whether gains persist into the postpartum period and beyond. Additionally, the study did not examine potential mediators or moderators, such as personality traits, baseline distress tolerance, or social support, which could influence treatment outcomes. Finally, the group format, while advantageous in many ways, might limit individual tailoring of therapy, and future comparisons of individual versus group delivery could offer further clarity.

Future studies should aim to replicate and extend these findings with larger, more diverse samples of pregnant women from different socioeconomic, cultural, and geographical backgrounds. Investigating the differential effectiveness of CBT and SFBT across pregnancy trimesters could provide insight into the optimal timing of psychological intervention. Additionally, researchers should explore mediators and moderators of treatment response, such as emotion regulation strategies, cognitive flexibility, and perceived social support, to better understand for whom and under what circumstances each therapy is most effective. Combining CBT and SFBT elements into integrative or stepped-care models could be tested to maximize clinical outcomes and resource efficiency. Longitudinal research extending into the postpartum period would be valuable to assess the long-term impact of these interventions on maternal mental health, parent–infant bonding, and infant developmental outcomes. Moreover, the development and testing of digital or hybrid delivery

Health Nexus
E-ISSN: 2981-2569

methods for CBT and SFBT could improve accessibility for pregnant women who face logistical or mobility challenges.

Clinicians and maternal health professionals can confidently implement both CBT and SFBT as effective interventions to enhance distress tolerance in pregnant women. Given their comparable outcomes, the choice of therapy can be informed by clinical resources, therapist training, and patient preference. SFBT may be particularly useful in time-limited or resource-constrained settings, while CBT could be prioritized when more intensive cognitive restructuring and skill-building are needed. Incorporating group-based formats can maximize support and reduce stigma by normalizing pregnancy-related psychological distress. Routine screening for distress tolerance and psychological vulnerability during prenatal care can guide timely referral to these interventions. Finally, culturally adapting both approaches to align with local beliefs, family structures, and coping traditions will likely enhance engagement and effectiveness in diverse maternal populations.

Authors' Contributions

All authors equally contributed to this study.

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.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethics Considerations

The study placed a high emphasis on ethical considerations. Informed consent obtained from all participants, ensuring they are fully aware of the nature of the study and their role in it. Confidentiality strictly maintained, with data anonymized to protect individual privacy. The study adhered to the ethical guidelines for research with human subjects as outlined in the Declaration of Helsinki.

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E-ISSN: 2981-2569