




Comparison of the Effectiveness of Cognitive-Behavioral Therapy and an Integrated Seven-Domain Competence-Based Approach in Reducing Suicidal Ideation Among Individuals Recovering from Substance Use Disorder

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Article Info

Article type:

Original Research

Section:

Rehabilitation Counseling

How to cite this article:

Samet, M. S., Mohammadipour, M., & Bakhshipour, A. (2026). Comparison of the Effectiveness of Cognitive-Behavioral Therapy and an Integrated Seven-Domain Competence-Based Approach in Reducing Suicidal Ideation Among Individuals Recovering from Substance Use Disorder. *KMAN Counseling and Psychology Nexus*, 4, 1-10.

<http://doi.org/10.61838/kman.hp.psynexus.4960>



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ABSTRACT

This study aimed to compare the effectiveness of cognitive-behavioral therapy and an integrated seven-domain competence-based counseling approach in reducing suicidal ideation among individuals recovering from substance use disorder. The study employed a single-case experimental design with repeated measures across twelve treatment sessions and an eight-week follow-up period. Six recovered individuals with substance use disorder were purposively selected from an addiction treatment center in Tehran Province and assigned to either a cognitive-behavioral therapy group or a seven-domain competence-based intervention group. Suicidal ideation was assessed at baseline, post-treatment, and follow-up using the Beck Scale for Suicide Ideation Questionnaire. Interventions were delivered weekly in forty-five-minute sessions. Data were analyzed through visual analysis and change-score comparisons to evaluate treatment effects and maintenance of gains. Both treatment approaches produced significant and clinically meaningful reductions in suicidal ideation. However, the seven-domain competence-based intervention resulted in significantly greater magnitude of improvement and superior maintenance of therapeutic gains at follow-up. Participants in this group demonstrated near-complete remission of suicidal ideation with minimal post-treatment relapse, whereas the cognitive-behavioral therapy group exhibited moderate symptom fluctuation and less stable long-term outcomes. The findings indicate that although cognitive-behavioral therapy is an effective intervention for reducing suicidal ideation among individuals in recovery from substance use disorder, an integrated seven-domain competence-based counseling approach may yield deeper and more durable psychological change.

Keywords: *Cognitive-behavioral therapy; seven-domain competence model; suicidal ideation; substance use disorder.*

1. Introduction

Substance use disorder remains one of the most complex and persistent public health challenges worldwide, exerting profound effects on individuals' psychological functioning, interpersonal relationships, and social integration. Among the most critical and life-threatening consequences associated with substance dependence is suicidal ideation, which occurs at significantly higher rates in individuals with a history of addiction than in the general population. Suicidal thoughts in this population often emerge from the interaction of neurobiological vulnerability, impaired emotion regulation, maladaptive cognitive patterns, interpersonal disconnection, and chronic psychosocial stress. Research conducted across diverse cultural and clinical settings consistently demonstrates that individuals recovering from substance use disorders remain at elevated risk for suicide even after achieving abstinence, underscoring the urgent need for comprehensive and durable psychological interventions that target both symptom reduction and underlying vulnerability structures (Jiao & Zhang, 2025; Nateghi & Sohrabi, 2017; Rojas et al., 2022).

Addiction-related cognitive and emotional dysregulation plays a central role in the development and maintenance of suicidal ideation. Difficulties in regulating negative affect, persistent self-critical beliefs, impaired impulse control, and rigid cognitive styles significantly increase vulnerability to suicidal crises. Empirical evidence indicates that individuals with substance dependence frequently exhibit deficits in executive functioning, response inhibition, and working memory, which compromise adaptive coping and problem solving during high-risk emotional states (Abdolmohamamadi et al., 2023; Ottonello et al., 2019; Pourjaberi et al., 2023). Moreover, emotional dysregulation during recovery is strongly associated with relapse risk and intensification of suicidal thinking, as maladaptive attempts to manage distress often lead to hopelessness and perceived entrapment (Ottonello et al., 2019; Sadeghifar & Mehrabian, 2022). Consequently, interventions that simultaneously address cognitive distortions, emotional instability, behavioral dysregulation, and interpersonal disconnection are particularly relevant for this population.

Cognitive-behavioral therapy (CBT) has emerged as one of the most extensively validated psychological treatments for both addiction-related psychopathology and suicidal ideation. Through its structured and collaborative framework, CBT targets maladaptive beliefs, dysfunctional emotional responses, and ineffective coping behaviors that

contribute to psychological distress and self-destructive tendencies. Systematic reviews and meta-analyses provide strong evidence that CBT significantly reduces addictive symptoms, craving intensity, impulsivity, and suicidal ideation across a range of populations (Jiao & Zhang, 2025; Reangsing et al., 2025). Clinical trials further demonstrate that CBT produces meaningful improvements in emotion regulation, self-efficacy, and self-esteem, which serve as protective factors against suicidal behavior (Badiie et al., 2025; Rahimi et al., 2022). Specialized CBT protocols for suicide prevention have also shown promising results in both face-to-face and telehealth formats, emphasizing the adaptability and broad applicability of the approach (Rojas et al., 2022).

Within addiction contexts, CBT has been shown to reduce craving, improve cognitive control, and strengthen relapse prevention skills, making it particularly suitable for individuals in early recovery. Studies involving methamphetamine users and adolescents with addiction tendencies reveal that CBT significantly decreases suicidal thoughts and impulsivity while enhancing psychological stability and adaptive functioning (Badiie et al., 2025; Nateghi & Sohrabi, 2017). Furthermore, contemporary developments in CBT emphasize imagery-enhanced techniques and metacognitive components that further strengthen emotional processing and cognitive flexibility, enhancing long-term treatment outcomes (McEvoy et al., 2022; Olivari et al., 2025). Despite these advances, clinical observations indicate that some individuals—particularly those with complex developmental trauma, entrenched maladaptive schemas, and severe interpersonal dysfunction—may require broader and more integrative therapeutic frameworks beyond traditional CBT alone.

Recent literature increasingly supports the value of integrative and competence-based counseling models that address the multidimensional nature of psychological distress in addiction recovery. Such models emphasize not only symptom reduction but also the development of adaptive emotional, cognitive, relational, and motivational capacities. The Seven-Domain Competency Model in counseling represents one such integrative framework, systematically targeting therapeutic alliance, assessment and goal formation, schema restructuring, emotional processing, ambivalence resolution, nonlinear thinking, and relapse prevention. These domains collectively address the full spectrum of psychological processes implicated in addiction-related vulnerability and suicidality. Empowerment-based and psychosocial interventions

grounded in integrative principles have demonstrated significant effects on resilience, marital adjustment, psychological well-being, and tolerance for distress in populations affected by addiction (Baquer Nejad & Mousavi, 2015; Moayedimehr et al., 2023; Sheikhul-Islami & Nowrozi Firouz, 2023).

A growing body of research underscores the importance of psychological empowerment, emotional self-regulation, and cognitive restructuring as core mechanisms of change in addiction recovery. Interventions that enhance individuals' sense of agency, emotional competence, and adaptive belief systems produce sustained improvements in mental health and interpersonal functioning, thereby reducing relapse risk and suicidal vulnerability (Moayedimehr et al., 2023; Sheikhul-Islami & Nowrozi Firouz, 2023). Cognitive rehabilitation programs further complement these approaches by strengthening executive functions and response inhibition, which are critical for impulse control and decision making during high-risk emotional states (Abdolmohamamadi et al., 2023; Pourjaberi et al., 2023). Moreover, treatments that integrate emotional, cognitive, behavioral, and motivational components have demonstrated superior outcomes in complex addiction cases compared with single-focus interventions (Olivari et al., 2025; Pirkashani et al., 2021).

Emotion regulation emerges as a particularly salient construct in the relationship between addiction and suicidal ideation. Impaired emotional awareness, heightened emotional reactivity, and maladaptive emotion regulation strategies significantly increase the risk of both relapse and suicidal behavior. Empirical studies consistently show that individuals in addiction rehabilitation who struggle with emotion regulation are more vulnerable to craving, relapse, and suicidal crises (Ottonello et al., 2019; Pirkashani et al., 2021). Consequently, interventions that explicitly target emotional processing and regulation—core elements of the seven-domain model—may offer important advantages over traditional symptom-focused therapies. These approaches foster not only cognitive change but also deep emotional integration and adaptive self-soothing capacities, which are essential for long-term psychological stability.

Despite the well-established efficacy of CBT, emerging evidence suggests that integrative approaches may provide broader and more durable benefits for individuals with complex psychological profiles. While CBT effectively addresses surface-level cognitive distortions and maladaptive behaviors, integrative frameworks extend therapeutic impact by modifying core schemas,

strengthening relational functioning, enhancing emotional intelligence, and resolving motivational conflicts that often undermine recovery. Research in related domains, including depression, eating disorders, and compulsive behaviors, indicates that interventions combining cognitive restructuring with emotional, motivational, and metacognitive components yield stronger and more sustained treatment effects (Fitzsimmons-Craft et al., 2023; McEvoy et al., 2022; Olivari et al., 2025). These findings highlight the potential value of comparing CBT with integrative competency-based approaches in populations facing severe psychological vulnerability.

Within the Iranian context, addiction remains a major public health concern, accompanied by rising rates of suicide and psychological distress. Cultural, economic, and social stressors compound the clinical challenges faced by individuals in recovery, necessitating culturally responsive and theoretically robust intervention models. Iranian studies demonstrate that empowerment-based programs, CBT, and emotion-focused interventions significantly improve mental health, resilience, and interpersonal functioning among individuals affected by addiction and their families (Moayedimehr et al., 2023; Sadeghifar & Mehrabian, 2022; Sheikhul-Islami & Nowrozi Firouz, 2023). However, comparative research examining the differential effectiveness of CBT and integrative multi-domain counseling models on suicidal ideation in recovered addicts remains limited.

Given the persistent risk of suicide during recovery, the complexity of psychological vulnerability in addiction, and the emerging promise of integrative therapeutic frameworks, systematic comparison of established CBT with the seven-domain competency-based approach represents an important contribution to both clinical practice and research. Such comparative investigations provide critical insights into which therapeutic mechanisms most effectively promote sustained psychological stability, reduce suicidal ideation, and support long-term recovery in high-risk populations.

Therefore, the aim of the present study was to compare the effectiveness of cognitive-behavioral therapy and an integrated counseling approach based on the seven-domain model in reducing suicidal ideation among individuals recovered from substance use disorder.

2. Methods and Materials

2.1. Study Design and Participants

The present study employed a single-case experimental design with repeated measures conducted across twelve therapeutic sessions, following a two-session baseline control phase. This design was selected to allow close monitoring of individual change patterns over time while maintaining strong internal control through intra-subject comparisons. Each participant first completed a baseline assessment under self-control conditions, during which suicidal ideation was measured on two separate occasions prior to the initiation of the intervention. Subsequently, the therapeutic protocols were implemented and outcome data were collected at predetermined intervals throughout the twelve treatment sessions. In order to evaluate the stability of treatment effects, an eight-week follow-up assessment was also conducted after completion of the interventions. The study population consisted of recovered individuals with substance use disorder who were receiving services at the Akhavan Article 16 Addiction Treatment Center under the supervision of the State Welfare Organization during the year 2024. From this population, six participants were selected using purposive sampling based on predefined inclusion criteria, including a documented history of substance dependence, completion of primary detoxification, clinical stability at the time of enrollment, and the presence of suicidal ideation at baseline. All participants voluntarily consented to participate in the study after receiving a full explanation of the research objectives, procedures, potential risks, and confidentiality safeguards.

2.2. Measures

Suicidal ideation was assessed using the Beck Scale for Suicide Ideation (BSSI). This instrument was developed to detect and quantify the intensity of attitudes, behaviors, and planning related to suicide. The scale consists of nineteen items that measure both the severity and frequency of suicidal thoughts within a specified time frame. The items evaluate a broad range of constructs, including the wish to die, active and passive suicidal desire, duration and frequency of suicidal thoughts, perceived control over suicidal impulses, inhibitory factors, and the individual's readiness to engage in self-harm behaviors. The questionnaire was administered individually and in person for each participant. Each item is scored on a three-point Likert scale ranging from zero to two, producing a minimum

possible score of zero and a maximum score of thirty-eight, with higher scores indicating greater severity of suicidal ideation. Extensive psychometric evaluation of the instrument has been conducted in both international and Iranian populations. Previous research has reported a Cronbach's alpha coefficient of 0.97 and a test-retest reliability coefficient of 0.54. Iranian validation studies have demonstrated internal consistency coefficients of 0.95 and split-half reliability of 0.75. The BSSI is particularly suitable for monitoring changes in suicidal ideation during therapeutic interventions, making it an appropriate outcome measure for the present investigation.

2.3. Interventions

The cognitive-behavioral therapy intervention was implemented over twelve weekly individual sessions of forty-five minutes. The first session focused on therapeutic engagement, clarification of confidentiality and session rules, clinical problem exploration, collection of psychosocial history, and introduction of the CBT model, with the aim of establishing a therapeutic alliance and formulating a preliminary treatment contract while participants documented their expectations for therapy. The second session addressed identification of predisposing, precipitating, and maintaining factors of participants' problems, goal formulation, and explanation of session structure, with emphasis on strengthening the therapeutic alliance, fostering hope, and teaching realistic goal-setting strategies. The third session introduced the four-component cognitive model encompassing emotions, bodily reactions, behaviors, and thoughts, enabling participants to recognize maintaining mechanisms of distress and increase readiness for change through structured self-monitoring. The fourth session focused on identification of dysfunctional and negative automatic thoughts and awareness of the impact of life events on emotional, cognitive, behavioral, and physiological responses, initiating the cognitive change process by linking thought modification with emotional and behavioral improvement. The fifth session involved identification of common negative thinking patterns, exploration of participants' worries, and recognition of cognitive distortions occurring before, during, and after negative thoughts, thereby enhancing perceived cognitive control and challenging the validity of maladaptive beliefs. The sixth and seventh sessions emphasized challenging core negative beliefs using techniques such as the downward arrow method, imagery exploration, and meaning-making of

personal experiences to uncover core schemas and central interpretations of situations. The eighth session trained participants in examining supporting and contradictory evidence for negative thoughts, applying the prosecutor-defense technique, and replacing irrational beliefs with balanced, logical alternatives to promote flexible thinking and problem solving. The ninth session focused on structured problem-solving training to disrupt maladaptive coping cycles and improve emotional adjustment. The tenth session introduced effective coping skills including imagery, deep breathing, and progressive muscle relaxation for managing stress, tension, anger, and anxiety, with daily practice assignments. The eleventh session extended coping training to craving recognition and management for relapse prevention by identifying internal and external triggers and developing appropriate coping responses. The final session consolidated all therapeutic skills, reviewed relapse prevention principles, and integrated learned techniques to promote long-term maintenance of treatment gains.

The integrated counseling intervention based on the seven-domain competence model was delivered across twelve weekly forty-five-minute sessions. The first session concentrated on establishing therapeutic contact and alliance through empathic listening, linear and nonlinear responding to content, emotion, and meaning, identifying dysfunctional communication patterns, and using techniques such as CAPIR, the bus metaphor, and the miracle question, while participants constructed a genogram and explored life traumas. The second session emphasized comprehensive assessment of clinical symptoms, stage of change, needs, resources, motivations, and personal strengths, combined with analysis of hidden narrative structures and goal clarification using techniques such as Galilean reasoning and “talking without the problem.” The third session reinforced therapeutic alliance maintenance, attachment-informed engagement, hope induction, rupture repair, advanced empathy, and goal refinement. The fourth and fifth sessions focused on understanding and restructuring cognitive schemas, conceptualizing belief systems related to self, others, and the world, processing developmental experiences from the family of origin, identifying distorted perceptions, and producing fundamental cognitive changes while teaching adaptive skills. The sixth and seventh sessions addressed recognition, expression, regulation, and transformation of emotional states by increasing emotional awareness, facilitating constructive emotional expression,

and managing negative emotions such as grief and anger through corrective emotional experiences. The eighth and ninth sessions explored ambivalence toward change, identifying conflicting motivational poles, applying motivational interviewing strategies, externalization, confrontation, scaling, exception questions, and decision-making enhancement to resolve ambivalence and strengthen commitment to change. The tenth and eleventh sessions introduced advanced nonlinear and paradoxical thinking processes, including first-order change, inductive and deductive reasoning, Socratic questioning, neutralizing, energizing, calming, and challenging interventions, and structured paradoxical techniques to promote cognitive flexibility and self-regulation. The final session integrated relapse prevention principles through comprehensive review of therapeutic content, consolidation of acquired competencies, and reinforcement of adaptive coping strategies to sustain recovery.

2.4. Data analysis

Given the single-case methodology adopted in this study, data analysis focused on detailed examination of individual change trajectories across baseline, treatment, and follow-up phases. Scores obtained from the Beck Scale for Suicide Ideation were plotted across measurement points in tables and graphical representations in order to visualize trends, level changes, and stability of treatment effects. Change scores were calculated for each participant by comparing baseline values with subsequent measurements obtained during therapy sessions and at follow-up. These intra-subject comparisons allowed assessment of therapeutic impact while controlling for individual variability. Visual analysis of level, slope, and variability was used in conjunction with numerical change indices to evaluate the magnitude and clinical significance of improvement. This combined analytical strategy provided a comprehensive depiction of treatment effectiveness within each case while respecting the methodological principles of single-case experimental research.

3. Findings and Results

The following section presents the general demographic and background characteristics of the participants. In order to protect participants’ privacy and confidentiality, only first names are reported.

Table 1

Descriptive Information of Study Participants

Participant	Gender	Age	Education Level	History of Addiction	Employment Status	Type of Treatment Received	Duration of Abstinence
Bijan	Male	40	Bachelor's degree	23 years	Unemployed	Cognitive-Behavioral Therapy	3 months
Amir Mohammad	Male	27	High school diploma	15 years	Unemployed	Cognitive-Behavioral Therapy	3 months
Abolfazl	Male	31	Primary education	15 years	Unemployed	Cognitive-Behavioral Therapy	3 months
Saman	Male	34	High school diploma	10 years	Unemployed	Seven-Domain Approach	3 months
Mehrdad	Male	20	Primary education	6 years	Unemployed	Seven-Domain Approach	4 months
Abolfazl B.	Male	29	High school diploma	10 years	Unemployed	Seven-Domain Approach	3 months

All six participants were male and ranged in age from 20 to 40 years. Educational attainment varied from primary education to a bachelor's degree, with most participants holding a high school diploma. The duration of substance use history ranged from 6 to 23 years, indicating long-term addiction among the majority of participants. At the time of enrollment, all participants were unemployed. Three participants received cognitive-behavioral therapy and three participants received the integrated seven-domain

counseling intervention. Duration of abstinence at study entry ranged from 3 to 4 months, reflecting a relatively early stage of recovery across the sample.

To evaluate changes in suicidal ideation and maladaptive schemas across baseline, treatment, and follow-up phases, repeated measurements were obtained for all six participants using the Beck Scale for Suicide Ideation (BSSI). Table 2 presents individual scores at pre-test, post-test, and two-month follow-up for both outcome measures.

Table 2

Individual Scores on BSSI Across Measurement Phases

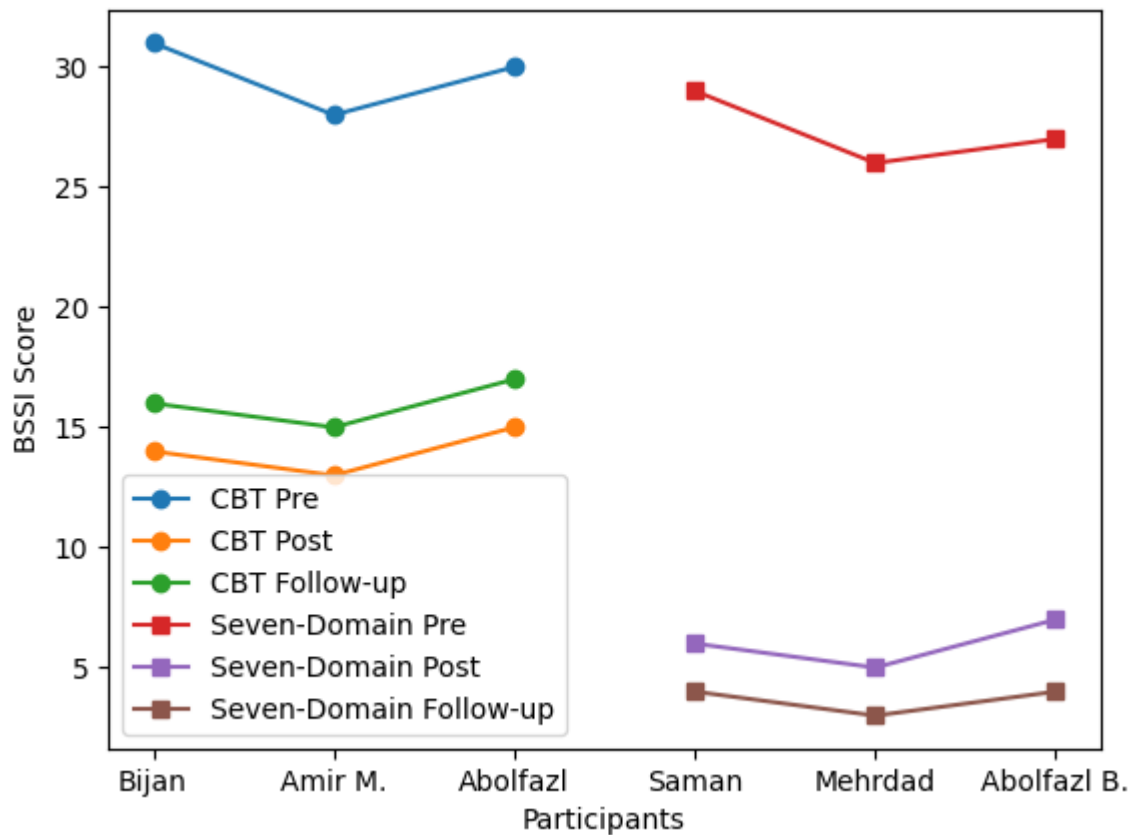
Participant	Treatment Group	BSSI Pre	BSSI Post	BSSI Follow-up
Bijan	CBT	31	14	16
Amir Mohammad	CBT	28	13	15
Abolfazl	CBT	30	15	17
Saman	Seven-Domain	29	6	4
Mehrdad	Seven-Domain	26	5	3
Abolfazl B.	Seven-Domain	27	7	4

As shown in Table 2, all six participants demonstrated substantial reductions in suicidal ideation and maladaptive schemas from pre-test to post-test, with improvements largely maintained at the two-month follow-up. In the cognitive-behavioral therapy group, BSSI scores decreased markedly following treatment, indicating meaningful clinical improvement; however, a partial rebound was observed at follow-up, with scores stabilizing at moderate levels. In contrast, participants receiving the seven-domain

integrated counseling approach exhibited sharper and more sustained reductions in suicidal ideation, with BSSI scores reaching near-minimal levels by post-test and remaining consistently low at follow-up. Overall, although both therapeutic approaches were effective, the seven-domain model produced stronger and more durable treatment effects, particularly in the reduction of suicidal ideation and core psychological vulnerability patterns.

Figure 1

Mean Score Comparisons Across Groups and Stages



4. Discussion

The present study examined and compared the effectiveness of cognitive-behavioral therapy and an integrated seven-domain competence-based counseling approach in reducing suicidal ideation among individuals recovering from substance use disorder. The quantitative findings demonstrated that both interventions produced statistically and clinically meaningful reductions in suicidal ideation across all participants. However, a consistent pattern emerged indicating that participants who received the seven-domain intervention experienced deeper, more stable, and more durable improvements, particularly at the two-month follow-up stage. This differential pattern of change suggests that while CBT effectively addresses key maintaining mechanisms of suicidality, the integrative seven-domain model may exert broader and more sustained therapeutic effects by engaging multiple psychological systems simultaneously.

The overall reduction in suicidal ideation observed across both treatment groups is consistent with a substantial body of literature demonstrating the efficacy of CBT-based interventions in mitigating suicidal thinking and self-harm risk. Numerous studies confirm that CBT reduces suicidality by modifying dysfunctional cognitions, enhancing emotional regulation, strengthening problem-solving abilities, and increasing self-efficacy (Jiao & Zhang, 2025; Nateghi & Sohrabi, 2017; Rojas et al., 2022). The improvements observed in the CBT group in the present study align closely with these findings, supporting the conclusion that structured cognitive restructuring, behavioral activation, and coping skills training can substantially reduce suicidal ideation even among individuals with extensive addiction histories.

At the same time, the superior durability of treatment effects in the seven-domain group provides important clinical insight. While CBT focuses primarily on cognitive distortions and behavioral patterns, the seven-domain approach extends intervention targets to include emotional processing, motivational ambivalence, attachment-based

relational dynamics, metacognitive functioning, and nonlinear cognitive flexibility. This multidimensional engagement likely contributed to the more stable post-treatment outcomes observed among participants receiving the seven-domain intervention. The present findings therefore support emerging theoretical perspectives that emphasize the necessity of integrative, transdiagnostic frameworks for treating complex clinical populations such as individuals recovering from substance use disorders (Moayedimehr et al., 2023; Sheikhul-Islami & Nowrozi Firouz, 2023).

The greater reduction and sustained suppression of suicidal ideation among seven-domain participants may also be explained through improvements in emotion regulation and metacognitive awareness. Research consistently demonstrates that emotion regulation difficulties represent a central vulnerability factor linking addiction and suicidality (Otonello et al., 2019; Pirkashani et al., 2021). By explicitly targeting emotional awareness, expression, and regulation processes, the seven-domain model may weaken the affective drivers of suicidal ideation more comprehensively than standard CBT alone. Moreover, dysfunctional metacognitive beliefs and desire-thinking patterns, which are increasingly recognized as core maintenance mechanisms of addictive and self-destructive behaviors, are directly addressed within the seven-domain framework (Olivari et al., 2025). These therapeutic components likely contributed to the deeper restructuring of internal cognitive-emotional systems observed in the present study.

The sustained improvements in the seven-domain group are further supported by evidence demonstrating the importance of motivational and identity-based change in addiction recovery. Psychological empowerment programs and integrative counseling interventions have been shown to enhance long-term emotional stability, relational functioning, and resilience among individuals affected by addiction (Baqer Nejad & Mousavi, 2015; Moayedimehr et al., 2023; Sheikhul-Islami & Nowrozi Firouz, 2023). By systematically strengthening clients' sense of agency, hope, and self-coherence, integrative models may buffer against relapse-related distress and subsequent suicidal ideation more effectively than symptom-focused approaches alone.

Neurocognitive factors may also help explain the differential outcomes observed between the two treatment conditions. Executive functioning deficits such as poor response inhibition, limited cognitive flexibility, and impaired working memory are well-documented among individuals with substance use disorders and are strongly

associated with impulsivity and suicidality (Abdolmohamadi et al., 2023; Pourjaberi et al., 2023). Interventions that improve these cognitive capacities have been shown to indirectly reduce vulnerability to self-harm by strengthening self-regulation and adaptive decision-making. The seven-domain model's emphasis on nonlinear thinking, paradoxical interventions, and advanced cognitive restructuring may therefore foster broader neurocognitive reorganization than traditional CBT, contributing to the more pronounced improvements observed.

Importantly, although the CBT group exhibited significant reductions in suicidal ideation, their follow-up scores displayed greater variability and partial rebound relative to the seven-domain group. This pattern suggests that while CBT is effective for initiating change, its therapeutic gains may be more vulnerable to erosion when clients confront ongoing life stressors, emotional triggers, and recovery-related challenges. This finding is consistent with research indicating that although CBT reliably reduces symptom severity, relapse risk remains elevated in highly complex clinical populations unless deeper structural psychological changes are achieved (Badiee et al., 2025; Reangsing et al., 2025). Integrative models may therefore provide a protective scaffold that supports maintenance of gains beyond the acute treatment phase.

The present findings also resonate with contemporary developments in suicide prevention research emphasizing brief and extended CBT-based protocols specifically tailored to suicidal risk (Jiao & Zhang, 2025; Rojas et al., 2022). However, the current study suggests that embedding CBT principles within a broader integrative framework may enhance their long-term effectiveness, particularly for individuals with extensive addiction histories and high psychological complexity. This integrated approach appears to address not only the cognitive content of suicidal ideation but also the emotional, motivational, relational, and identity-based dimensions that sustain it.

5. Conclusion

Taken together, the results of this study contribute to a growing body of evidence supporting the value of comprehensive, multidimensional treatment models for addressing suicidal ideation in addiction recovery. While CBT remains an indispensable component of evidence-based care, the seven-domain competence-based counseling approach may offer superior durability of outcomes by systematically transforming the psychological architecture

underlying addiction and self-destructive thinking. These findings underscore the importance of expanding clinical frameworks beyond symptom reduction toward holistic psychological restructuring.

Several limitations should be acknowledged. The study employed a small sample size and a single-case experimental design, which limits the generalizability of the findings. The absence of random assignment and blinding may have introduced expectancy effects. The follow-up period was limited to two months, restricting conclusions about long-term maintenance of treatment gains. Additionally, reliance on self-report measures may have been influenced by social desirability or response bias.

Future studies should employ larger randomized controlled trials with longer follow-up periods to examine the stability of treatment effects over time. Investigations incorporating neurocognitive and neurobiological markers could clarify the mechanisms underlying differential treatment responses. Comparative research across diverse cultural and clinical populations would further strengthen the external validity of the findings. Qualitative analyses may also deepen understanding of clients' subjective experiences of change within integrative treatment models.

Clinicians working with individuals recovering from substance use disorders should consider adopting integrative intervention frameworks that address cognitive, emotional, motivational, and relational processes concurrently. Treatment programs may benefit from embedding CBT techniques within broader competence-based models to enhance durability of outcomes. Training curricula for addiction counselors should emphasize multidimensional psychological formulation and intervention. Finally, mental health policy planners should support the development of comprehensive, long-term recovery-oriented care systems.

Authors' Contributions

M.S.S. conceptualized the study, developed the research design, and supervised all stages of the project. M.M. conducted the therapeutic interventions, coordinated participant recruitment, and managed data collection. A.B. performed the statistical and visual analyses, interpreted the results, and drafted the findings section. All authors contributed to manuscript writing, critically revised the content for intellectual accuracy, approved the final version for publication, and accept full responsibility for the integrity of the work.

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.

Ethical Considerations

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

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