



Examining the Relationship Between the Effectiveness of Compassion-Focused Therapy and Emotion-Focused Therapy on Enhancing Flexibility in Individuals with Psychoactive Substance Intoxication

Navid. Shirmardi¹, Parviz. Asgari^{2*}, Farshad. Bahari³

¹ PhD Student, Department of Psychology, Emirates Branch, Islamic Azad University, UAE

² Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran

³ Assistant Professor, Counseling Department, Arak Branch, Islamic Azad University, Arak, Iran

* Corresponding author email address: P.askary@iauahvaz.ac.ir

Article Info

Article type:

Original Research

How to cite this article:

Shirmardi, N., Asgari, P., & Bahari, F. (2025). Examining the Relationship Between the Effectiveness of Compassion-Focused Therapy and Emotion-Focused Therapy on Enhancing Flexibility in Individuals with Psychoactive Substance Intoxication. *Health Nexus*, 3(2), 16-25. <https://doi.org/10.61838/kman.hn.3.2.3>



© 2025 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

ABSTRACT

The present study aims to compare the effectiveness of Compassion-Focused Therapy (CFT) and Emotion-Focused Therapy (EFT) on flexibility in individuals with psychoactive substance intoxication in Ahvaz. This study is an experimental research with a pre-test, post-test, and follow-up design with a control group. The statistical population of this study includes all individuals dependent on psychoactive substances who visited outpatient addiction treatment centers in Ahvaz and were admitted to these centers. Based on the research objective, a sample of 45 individuals was selected from the target population using purposive sampling, considering inclusion and exclusion criteria. The participants were randomly assigned to three groups: experimental group 1 (CFT), experimental group 2 (EFT), and a control group. The measurement instrument used in the study was the second version of the Acceptance and Action Questionnaire developed by Bond et al. (2011). The first experimental group underwent a compassion-focused therapy intervention based on Gilbert's (2009, as cited in Golpour et al., 2014) compassion-focused therapy protocol, which consisted of eight weekly 60-minute sessions. The second experimental group received emotion-focused therapy based on the EFT protocol by Greenberg and Watson (2006, as cited in Salasi, Ramazani, & Jahan, 2022) over twelve 60-minute sessions. The control group did not receive any training during this period. A pre-test was administered to all 45 participants before the intervention, and a post-test was conducted after the completion of the sessions in all three groups. The results indicated that there was no significant difference between the effectiveness of Compassion-Focused Therapy and Emotion-Focused Therapy in improving flexibility in individuals with psychoactive substance intoxication in Ahvaz.

Keywords: *Compassion-Focused Therapy, Emotion-Focused Therapy, Flexibility, Individuals with Psychoactive Substance Intoxication*

1. Introduction

Addiction is one of the most critical global crises, extending beyond health concerns and becoming a

psychological, social, and familial issue (1). Recent estimates indicate that over 35 million people worldwide suffer from substance use disorders (United Nations Office on Drugs and Crime, 2019). Addiction can have numerous

psychological and social effects on an individual's life. Lying, stealing, and betrayal are among the consequences of addiction (2). Addicted individuals often exhibit indifference toward life, lack of purpose, pessimism, recklessness, emotional detachment, and disregard for societal values (3-5). Studies have shown that substance abuse can be associated with psychological well-being disorders, low self-esteem (6), and diminished spiritual vitality (7).

The causes and correlations of these widespread disorders are not yet fully understood; however, some evidence suggests that negative emotions may play a role in initiating and maintaining addictive behaviors. For example, adolescents experiencing depressive symptoms exhibit higher levels of substance use three months later, potentially escalating their consumption patterns into early adulthood (8).

The latest edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) has updated the diagnostic criteria for alcohol use disorder (alcohol addiction) and substance use disorders. The DSM categorizes substance-related disorders based on the use of ten distinct classes of substances: (1) alcohol; (2) caffeine; (3) cannabis; (4) hallucinogens (e.g., LSD); (5) inhalants; (6) opioids; (7) sedatives, hypnotics, or anxiolytics; (8) stimulants or psychoactive drugs (including amphetamines, cocaine, and other stimulants); (9) tobacco; and (10) other or unknown substances (9).

A notable concern is the significant increase in the prevalence of new psychoactive substances in the global market. These substances are often distributed with misleading labels or formulations that obscure their actual chemical composition, posing serious health risks (10, 11). Various definitions exist for the term "new psychoactive substances." The term "new" does not necessarily imply completely novel inventions but rather substances that have recently become available. Therefore, "new" may refer to a previously unsuccessful drug or an old substance that has been "rediscovered" and marketed for recreational use. Alternatively, "new" can imply an innovation, such as a known molecule being used in an unprecedented or unconventional manner to create a sense of novelty (12).

Psychoactive substances (psychostimulants), including cocaine, amphetamines, and cathinones, act as

sympathomimetic agents, affecting the central and peripheral nervous systems in a manner similar to adrenaline and noradrenaline. Both legal and illegal markets exist for these substances, raising public health concerns. Some psychostimulants are prescribed for treating attention-deficit/hyperactivity disorder (ADHD), obesity, and narcolepsy. However, many others are misused, leading to severe adverse health and social consequences (11).

According to the latest *World Drug Report*, amphetamine-type stimulants, including methamphetamine, methylenedioxy-methamphetamine (MDMA), and cathinones, are the third most commonly used drugs worldwide, following cannabis and opioids. Recent data indicate that approximately 34 million people used psychoactive substances in 2020 (2).

Flexibility, in simple terms, refers to positive adaptation in response to adversity. Adverse conditions are generally defined by two groups of risk factors: challenging circumstances and traumatic events. However, in a broader sense, flexibility encompasses the factors and processes that alter the trajectory from risk to problematic behaviors and psychological distress, leading to adaptive outcomes despite adverse conditions. In other words, flexibility is the process, ability, or outcome of successfully adapting despite challenging and threatening circumstances (13).

Around the 1970s, a group of developmental psychologists focused on children who, despite facing significant risks, exhibited successful adaptation. These researchers believed that studying flexibility could inform the development of programs, policies, and interventions aimed at enhancing competence and preventing or mitigating life difficulties. Their pioneering ideas inspired three decades of research on flexibility, providing models, methodologies, and insights with implications for theory, research, and intervention. The concept of individual resilience, despite exposure to adversity, has been present for centuries in myths, folklore, art, and literature. When developmental psychology emerged as a scientific discipline in the late 19th and early 20th centuries, there was a clear interest in individual adaptation to environmental demands, spanning perspectives from natural selection to self-analysis psychology. For example, Freud highlighted the human capacity to overcome adverse conditions. Additionally, 20th-century psychological theories on motivation,

competence, and self-efficacy focused on positive aspects of adaptation in development. However, throughout the 20th century, studies on children and adolescents from at-risk environments were primarily concerned with risk factors and symptom treatment (5, 14).

Flexibility is a crucial concept in psychology, referring to an individual's ability to reflect and adapt to various experiences, thoughts, emotions, and circumstances in life. This concept was introduced within the framework of Acceptance and Commitment Therapy (ACT) by Steven Hayes and colleagues (15, 16)). Flexibility encompasses the following abilities:

1. **Acceptance:** A willingness to experience thoughts, emotions, and mental states without attempting to change or control them. Acceptance involves recognizing that unpleasant experiences and emotions are a part of life rather than trying to eliminate them.
2. **Mindfulness:** Maintaining attention and focus on the present moment while avoiding excessive preoccupation with the past or future. Mindfulness helps individuals fully engage in the present, enhancing their awareness and experiences.
3. **Conscious Choice:** The ability to act in alignment with one's values, goals, and motivations. This includes making goal-directed and balanced choices rather than engaging in automatic or impulsive reactions.
4. **Committed Action:** Taking steps toward personal goals and values while facing obstacles and weaknesses. By choosing actions consistent with personal values, individuals move toward growth and improvement (17, 18).

Flexibility is a central goal in Acceptance and Commitment Therapy, as it contributes to psychological well-being, increased life satisfaction, and reduced psychological distress.

Research findings indicate that substance addiction profoundly impacts individuals' decision-making processes, making it extremely difficult to overcome addiction without professional assistance and therapeutic interventions. Additionally, relapse remains a persistent risk (13). Various treatments and interventions have been proposed to aid in the rehabilitation of individuals with addiction. Roehler et al.

(2020) examined pharmacotherapy, particularly the use of buprenorphine, and reported that higher relapse rates, addiction to the medication itself, and an increased risk of death were observed among these individuals (19). Magill et al. (2019) suggested that psychotherapy provides longer-lasting effects and lower relapse rates in individuals recovering from substance addiction (6). Tracy et al. (2016) found that, compared to individual psychotherapy, interventions involving support groups, such as family or friends, significantly improved treatment outcomes by engaging individuals in therapy and reducing secondary substance-related behaviors, such as cravings (10).

Based on these considerations, the present study was conducted to examine the effectiveness of Compassion-Focused Therapy and Emotion-Focused Therapy in enhancing flexibility in individuals with psychoactive substance intoxication.

2. Methods and Materials

2.1. Study Design and Participants

The statistical population of this study includes all individuals dependent on psychoactive substances who visited outpatient addiction treatment centers in Ahvaz and were admitted to these centers. Based on the research objective, a sample of 45 individuals was selected from the target population using purposive sampling, considering inclusion and exclusion criteria. The participants were randomly assigned to three groups: experimental group 1 (Compassion-Focused Therapy), experimental group 2 (Emotion-Focused Therapy), and a control group.

The inclusion criteria were:

- Receiving a diagnosis of psychoactive substance intoxication based on the criteria of the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)*.
- Willingness of the participant and at least one family member to cooperate throughout the intervention.
- Absence of co-occurring neurodevelopmental disorders, other psychiatric disorders, or intellectual disabilities, as reported by family members and documented in psychiatric records,

which could invalidate the diagnosis of substance dependence.

- Written informed consent signed by one of the patient's family members.

The exclusion criteria were:

- Receiving addiction-related therapeutic interventions while participating in the study.
- Continuous use of medication or methadone that could interfere with the investigated interventions.
- Lack of cooperation or absence from two consecutive therapy sessions.

The present study employed an expanded experimental design with a pre-test, post-test, and follow-up with a control group. This design is similar to the pre-test, post-test, and follow-up design with a control group, except that it involves two or more experimental groups. The study was conducted as an experimental research, where participants were randomly assigned to three groups (two experimental groups and one control group). Different interventions were applied to each experimental group, and participants in all three groups were assessed at pre-test, post-test, and follow-up stages.

Data collection in this study was conducted through library research. Additionally, the primary data collection instrument was a questionnaire, which is introduced below. The two protocols used for experimental groups 1 and 2 are described in the implementation section.

After obtaining approval from the university's research unit and securing ethical clearance for the study, patients diagnosed with psychoactive substance intoxication who had visited addiction treatment centers in Ahvaz between December and January 2024 were identified.

A meeting was arranged for one family member of each patient, during which the objectives, benefits, and advantages of the study were explained. Family members were then asked to sign a consent form if they agreed to participate in the study, with the option to withdraw at any time, even during the research process. Additionally, they were assured that all patient information would remain confidential, and each participant would be assigned a code. Although the study posed no physical, psychological, or financial risk, the researcher committed to compensating for any potential harm. At the end of the study, after the follow-

up phase, an appropriate intervention was also provided to the control group.

A sample of 45 eligible patients with low pre-test scores was selected and randomly assigned to three groups: experimental group 1, experimental group 2, and the control group, with 15 participants in each group. The two experimental groups received individual therapy sessions, with experimental group 1 undergoing Compassion-Focused Therapy and experimental group 2 receiving Emotion-Focused Therapy, while the control group received no intervention. The interventions for experimental group 1 consisted of eight 60-minute weekly sessions, whereas experimental group 2 underwent twelve 60-minute weekly sessions. After the interventions, a post-test was conducted, followed by a follow-up assessment 90 days later for all three groups. At the conclusion of the study, appreciation was expressed to the addiction treatment center staff in Ahvaz and the participants. The collected data were then analyzed.

2.2. Measure

The *Acceptance and Action Questionnaire* (2011) is a 10-item scale designed to assess psychological flexibility. This measure is particularly related to experiential avoidance and the tendency to engage in actions despite unwanted thoughts and emotions. Participants rate their agreement with each item on a seven-point Likert scale. Items 1, 6, and 10 are reverse-scored, and the total score is obtained by summing the item scores, including the reversed items. Higher scores on this scale indicate lower psychological flexibility and greater experiential avoidance. The mean score for students and the general population is 50.72, while the mean score for individuals seeking treatment for substance use is 39.80. Bond et al. (2011) examined the validity and reliability of this questionnaire using 2,816 participants across six samples. The results indicated that the scale's structure, validity, and reliability were satisfactory. The Cronbach's alpha coefficient ranged between 0.78 and 0.88, with an average of 0.84. The test-retest reliability over three and twelve months was 0.81 and 0.79, respectively. The findings demonstrated that the questionnaire scores predict a wide range of outcomes in accordance with the underlying theoretical framework, both concurrently and longitudinally (20). Additionally, the *Acceptance and Action*

Questionnaire exhibited appropriate divergent validity. The Cronbach's alpha reliability coefficient (0.88) and the test-retest reliability coefficient (0.79) indicate that this questionnaire is a reliable measurement tool. In the study by Abbasi et al. (2012), the internal consistency and split-half reliability of this questionnaire were reported as 0.89 and 0.71, respectively, demonstrating its strong psychometric properties (21).

2.3. Interventions

2.3.1. Compassion-Focused Therapy (CFT)

The Compassion-Focused Therapy (CFT) protocol implemented in this study followed Gilbert's (2009) model, adapted for individuals with psychoactive substance intoxication. The intervention consisted of eight weekly 60-minute sessions designed to cultivate self-compassion, regulate emotions, and reduce self-criticism (14). The first two sessions focused on psychoeducation about the three-system emotional regulation model (threat, drive, and soothing systems) and understanding how these systems contribute to substance use behaviors. Participants explored the role of self-criticism and shame in maintaining addictive behaviors. They practiced mindfulness exercises to increase awareness of internal experiences and identify self-judgments related to their addiction. Sessions three and four introduced self-compassion techniques, including compassionate imagery exercises to activate the soothing system. Participants learned to differentiate between self-criticism and self-kindness, practiced compassionate letter-writing to themselves, and engaged in guided visualization exercises to strengthen their ability to respond to distress with compassion rather than avoidance.

Sessions five and six focused on developing an inner compassionate voice to counteract self-judgment and enhance emotional regulation. Participants engaged in role-playing exercises to practice responding to self-criticism with kindness and acceptance. They also learned breathing techniques and body-based compassion exercises to regulate emotional distress. Sessions seven and eight emphasized integrating self-compassion into daily life. Participants explored how to maintain self-compassionate responses in high-risk situations, such as cravings or relapses. They practiced self-compassionate goal-setting and created

personalized relapse prevention strategies incorporating compassion-based techniques. The final session included a review of progress, reinforcement of self-compassion skills, and a discussion of long-term strategies for maintaining emotional resilience and reducing shame-driven substance use behaviors.

2.3.2. Emotion-Focused Therapy (EFT)

The Emotion-Focused Therapy (EFT) protocol in this study was based on Greenberg and Watson's (2006) model and consisted of twelve 60-minute weekly sessions tailored to address emotional dysregulation in individuals with psychoactive substance intoxication (14). The first two sessions introduced participants to the core principles of EFT, including the role of emotions in substance use and the importance of emotional awareness. Participants learned how emotions serve as signals and were guided through exercises to identify and label their emotional experiences. Sessions three and four focused on exploring maladaptive emotional patterns, such as emotional avoidance and suppression, which contribute to addiction. Participants engaged in experiential exercises, including two-chair dialogues, to express conflicting emotions and recognize how unresolved emotional pain led to substance-seeking behaviors.

Sessions five and six aimed to enhance emotional differentiation and regulation. Participants practiced deepening emotional awareness and expressing emotions in a safe, therapeutic setting. They learned techniques such as emotion tracking and focusing exercises to process and regulate distressing emotions effectively. Sessions seven and eight targeted transformation of maladaptive emotions into adaptive emotional responses. Participants worked on restructuring core emotional beliefs and practicing reappraisal techniques to shift their relationship with negative emotions. Sessions nine and ten emphasized developing secure attachment patterns and self-soothing techniques to manage distress without resorting to substances. Finally, sessions eleven and twelve integrated all learned skills, helping participants create an emotional resilience plan to prevent relapse. The intervention concluded with a review of progress, discussion of personal insights, and reinforcement of long-term strategies for

maintaining emotional well-being and reducing substance dependence.

2.4. Data Analysis

For data analysis, descriptive statistical methods such as frequency distribution, percentage distribution, mean, and standard deviation were used. Inferential statistical methods included mixed-design analysis of variance (ANOVA) with repeated measures, Bonferroni post-hoc tests, and assumption testing.

Table 1

Mean and Standard Deviation of Flexibility in the CFT Group (1), EFT Group (2), and Control Group (3) at Pre-Test, Post-Test, and Follow-Up Stages (Sample of Individuals with Psychoactive Substance Intoxication)

Variable	Stage	Experiment 1 (CFT) Mean	Experiment 1 (CFT) SD	Experiment 2 (EFT) Mean	Experiment 2 (EFT) SD	Control Mean	Control SD
Flexibility	Pre-Test	39.50	4.12	38.25	4.30	38.83	3.51
	Post-Test	45.58	5.23	46.00	4.41	39.16	3.63
	Follow-Up	45.91	4.88	47.08	4.27	39.33	3.65

Before analyzing the data related to the hypotheses, the assumptions required for mixed-design analysis of variance (ANOVA) with repeated measures were examined to ensure that the dataset met these statistical assumptions. These assumptions included the continuous nature of the dependent

The data analysis was conducted using SPSS version 27. The significance level for this study was set at $\alpha = 0.05$.

3. Findings and Results

Table 1 presents the mean and standard deviation of flexibility scores in the Compassion-Focused Therapy (CFT) group (1), the Emotion-Focused Therapy (EFT) group (2), and the control group (3) at the pre-test, post-test, and follow-up stages in the sample of individuals with psychoactive substance intoxication.

variable, normality of the data distribution, homogeneity of variances, and sphericity among groups. The results presented in Table 2 confirm that these assumptions were met.

Table 2

Results of Levene's Test for Homogeneity of Variances, Mauchly's Test of Sphericity, and Kolmogorov-Smirnov Test for Normality in the Dependent Variables

Variable	Levene's Statistic	Significance Level	Mauchly's W	Significance Level	Kolmogorov-Smirnov Z	Significance Level
Flexibility	0.96	0.39	0.811	0.03	0.101	0.20

The results in Table 2 indicate that Levene's test is not significant, Mauchly's test is significant, and the distribution of the studied variables is normal. Since Mauchly's test of sphericity was significant at $\alpha = 0.05$, the assumption of sphericity was violated. Therefore, the Greenhouse-Geisser

correction was applied. Table 3 presents the results of the mixed-design ANOVA with repeated measures for flexibility across the three groups and three measurement stages.

Table 3

Results of Mixed-Design ANOVA with Repeated Measures for Flexibility Across Three Groups and Three Measurement Stages

Variable	Source of Variation	Sum of Squares	df	Mean Square	F	Significance Level	Effect Size
Flexibility	Stages	601.68	1.68	357.63	738.43	0.001	0.95
	Stages * Group	270.09	3.36	80.27	165.73	0.001	0.90
	Between Groups	510.51	2	255.25	4.75	0.01	0.22

As shown in Table 3, the F-values for flexibility at the pre-test, post-test, and follow-up stages are significant at $p = 0.001$. These findings indicate that significant differences exist in the dependent variable (flexibility) across the pre-test, post-test, and follow-up stages. Additionally, the interaction effect between group and measurement stages is significant at $p = 0.001$, suggesting that the interaction between groups and measurement stages significantly

influenced the dependent variable. Furthermore, the F-values for flexibility in the CFT and EFT groups are significant at $p = 0.001$, indicating significant differences between the CFT, EFT, and control groups.

Table 4 presents the results of the Bonferroni post hoc test comparing the three stages (pre-test, post-test, and follow-up) within each group in terms of flexibility.

Table 4

Bonferroni Post Hoc Test Results for Comparing Three Stages (Pre-Test, Post-Test, and Follow-Up) Within Groups for Flexibility

Variable	Comparison of Stages	Experiment 1 (CFT) Mean Difference	Significance Level	Experiment 2 (EFT) Mean Difference	Significance Level	Control Mean Difference	Significance Level
Flexibility	Post-Test - Pre-Test	6.08	0.001	7.75	0.001	0.33	0.74
	Follow-Up - Pre-Test	6.41	0.001	8.83	0.001	0.50	0.28
	Follow-Up - Post-Test	0.33	0.29	1.08	0.34	0.17	1.00

As seen in Table 4, in the flexibility variable, significant differences were observed in the post-test and follow-up stages compared to the pre-test stage for both the CFT and EFT groups at $p < 0.05$. However, these differences were not significant in the control group ($p > 0.05$). Additionally, for all three groups (CFT, EFT, and control), the differences

between the follow-up and post-test stages in flexibility were not significant ($p > 0.05$).

Table 5 presents the results of the Bonferroni post hoc test comparing the three groups (CFT, EFT, and control) across different measurement stages for flexibility.

Table 5

Bonferroni Post Hoc Test Results for Comparing Three Groups (CFT, EFT, and Control) Across Measurement Stages for Flexibility

Variable	Comparison of Groups	Pre-Test Mean Difference	Significance Level	Post-Test Mean Difference	Significance Level	Follow-Up Mean Difference	Significance Level
Flexibility	Experiment 1 (CFT) - Experiment 2 (EFT)	1.25	1.00	0.41	1.00	1.16	1.00
	Experiment 1 (CFT) - Control	0.66	1.00	6.41	0.001	6.58	0.001
	Experiment 2 (EFT) - Control	0.58	1.00	6.83	0.001	8.83	0.001

As shown in Table 5, at the pre-test stage, no significant differences were observed between the CFT, EFT, and control groups ($p > 0.05$). However, at the post-test and follow-up stages, significant differences were found between the EFT group and both the CFT and control groups ($p < 0.05$). Additionally, at the post-test and follow-up stages, there were no significant differences between the CFT and EFT groups ($p > 0.05$).

Substance abuse has become one of the most significant issues related to mental health today (8, 12). Substance addiction is a learned habit involving psychological and physiological factors that drive individuals toward dependency and continued use. One of the factors closely associated with substance use is flexibility. In recent years, flexibility has increasingly been recognized as an essential construct influencing a wide range of clinical dimensions, including anxiety, depression, emotional dysregulation, substance abuse, and other disorders. Flexibility refers to an

4. Discussion and Conclusion

individual's ability to focus on the present situation and utilize opportunities to move toward their goals and intrinsic values despite encountering challenging or unwanted psychological events (14).

Given the confirmed effectiveness of Compassion-Focused Therapy (CFT) in improving flexibility, this finding can be explained by the fact that CFT aims to clarify the core components of compassion, such as sensitivity combined with caregiving motivation, sympathy, empathy, distress tolerance, and a nonjudgmental perspective. This therapeutic approach emphasizes freeing individuals from mental traps, such as self-evaluations and distressing self-labeling associated with painful emotions. Following therapy sessions, negative self-assessments change, cognitive distortions are corrected, and fear and avoidance of the self diminish—indicating an increase in cognitive flexibility. When individuals with addiction participate in CFT sessions and learn the techniques and skills of this therapeutic approach, over time, their cognitive structure becomes equipped with a compassionate mindset. Under these conditions, they regulate their emotional arousal by diverting attention away from negative emotions and attempt to reframe the meaning of their emotional and perceptual states. In this state, their emotions and feelings are neither painful nor avoidance-driven, allowing them to develop a more balanced and realistic perspective on their emotions and, overall, achieve greater flexibility (22, 23).

Regarding the confirmed effectiveness of Emotion-Focused Therapy (EFT) in improving flexibility, this finding can be explained by the idea that, in individuals with psychoactive substance intoxication, cognitive flexibility is influenced by cognitive and emotional processes. As a result, therapies based on emotion regulation and cognitive restructuring are effective. Thus, it can be stated that in the EFT approach, participants, through their experience in the emotional awareness phase, learn that instead of suppressing their emotions or being overwhelmed by them, they should become aware of their emotions and attempt to process their experiences more deeply. Therapeutic outcomes for participants include increased emotional awareness, the expression of new emotions, improved coping with emotional regulation difficulties, and appropriate emotional expression, all of which play a crucial role in enhancing flexibility (24, 25)s.

Given the confirmed lack of difference in the effectiveness of Compassion-Focused Therapy and Emotion-Focused Therapy in improving flexibility, this finding suggests that both methods were equally effective in enhancing flexibility. Compassion-Focused Therapy serves as a significant factor in achieving emotional, behavioral, psychological, and emotional balance by fostering self-care, increasing awareness, and developing a nonjudgmental attitude toward personal inadequacies and failures. Self-compassion requires individuals to articulate their emotions, which breaks the cycle of self-absorption. Expressing emotions leads to emotional and psychological release for individuals with psychoactive substance intoxication, enabling them to perceive greater flexibility. Additionally, the Emotion-Focused Therapy approach helps individuals improve interpersonal relationships and gain better control over them by enhancing emotional awareness, labeling emotions, recognizing agency in emotional experiences, and modifying cognitive processing. Consequently, this approach enables individuals to tolerate ambiguities. EFT, due to its techniques such as understanding, exploration, tracking, validation, mirroring empathy, discovering emotional processing styles, and coaching emotional regulation through identification, awareness, acceptance, tolerance, and regulation of emotions, helps individuals adjust their positive and negative emotions. This, in turn, leads to improved self-judgment and self-perception in individuals with psychoactive substance intoxication, contributing to greater flexibility.

One limitation of this study is that it was conducted exclusively among individuals with psychoactive substance dependence in Ahvaz. Therefore, caution should be exercised in generalizing the findings to non-similar samples. Given the broad audience of the education system, it is recommended that the techniques of Emotion-Focused Therapy and Compassion-Focused Therapy be incorporated into extracurricular programs at the secondary education level as a structured activity for enhancing flexibility through emotional regulation.

Authors' Contributions

N. S. contributed to the conceptualization and design of the study, data collection, and manuscript preparation. P. A. supervised the research process, assisted with data analysis,

and provided critical feedback. F. B. contributed to the methodology, participant recruitment, statistical analysis, and interpretation of the results. All authors reviewed and approved the final manuscript and are accountable for all aspects 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.

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. Ethical considerations included obtaining informed consent, ensuring confidentiality and anonymity, and avoiding any harm to participants.

References

1. Webb JR, Boye CM. Self-Forgiveness and Self-Condemnation in the Context of Addictive Behavior and Suicidal Behavior. *Substance Abuse and Rehabilitation*. 2024;21-30. [PMID: 38524663] [PMCID: PMC10961012] [DOI]
2. Abadie R, Habecker P, Carrasco KG, Chiou KS, Fernando S, Bennett SJ, et al. Employing respondent driven

sampling (RDS) to recruit people who inject drugs (PWID) and other hard-to-reach populations during COVID-19: lessons learned. *Frontiers in Psychiatry*. 2022;13:990055. [PMID: 36262631] [PMCID: PMC9574048] [DOI]

3. MirarabRazi M, Shariatnia K, Hoseinia A. Comparing the efficacy of treatment based on acceptance and commitment and short-term solution-oriented treatment on marital intimacy of addicted men's wives in Azadshahr city. *Rooyesh-e-Ravanshenasi Journal (RRJ)*. 2024;13(1):133-42.

4. Sevari K, Terahi R. Comparison of Family Functioning, Social Support and Irrational Beliefs in Addicted Addicts Undergoing Compulsory Treatment and Self-Reported Addicts in Treatment Centers. *Social Psychology Research*. 2024;13(52):85-98.

5. Aurora P, Coifman KG. Unpacking social avoidance and substance use in social anxiety: does extraversion explain behavior variability? *Journal of Psychopathology and Behavioral Assessment*. 2021;43(2):281-92. [DOI]

6. Magill M, Ray L, Kiluk B, Hoadley A, Bernstein M, Tonigan JS, et al. A meta-analysis of cognitive-behavioral therapy for alcohol or other drug use disorders: Treatment efficacy by contrast condition. *Journal of Consulting and Clinical Psychology*. 2019;87(12):1093. [PMID: 31599606] [PMCID: PMC6856400] [DOI]

7. Kadri R, Husain R, Omar SHS. Impact of spiritual meditation on drug addiction recovery and wellbeing: A systematic review. *International Journal of Human and Health Sciences*. 2020;4(4):237-50. [DOI]

8. Wellman RJ, Chaiton M, Morgenstern M, O'Loughlin J. Untangling influences in the longitudinal relationship between depressive symptoms and drinking frequency in high school. *Journal of Adolescent Health*. 2020;66:308-14. [PMID: 31727551] [DOI]

9. American Psychiatric Association. Diagnostic and statistical manual of mental disorders: DSM-5-TR: Washington, DC: American psychiatric association; 2022.

10. Tracy K, Wallace SP. Benefits of peer support groups in the treatment of addiction. *Substance Abuse and Rehabilitation*. 2016;143-54. [PMID: 27729825] [PMCID: PMC5047716] [DOI]

11. Paz-Ramos MI, Cruz SL, Violante-Soria V. Amphetamine-type stimulants: novel insights into their actions and use patterns. *Revista de Investigación Clínica*. 2023;75(3):143-57. [PMID: 37441770] [DOI]

12. Corkery JM, Orsolini L, Papanti D, et al. From concept(ion) to life after death/the grave: the 'natural' history and life cycle(s) of novel psychoactive substances (NPS). *Human Psychopharmacology*. 2017;32(3). [PMID: 28657188] [DOI]

13. Field M, Heather N, Murphy JG, Stafford T, Tucker JA, Witkiewitz K. Recovery from addiction: Behavioral economics and value-based decision making. *Psychology of Addictive Behaviors*. 2020;34(1):182. [PMID: 31599604] [DOI]

14. Frostadottir AD, Dorjee D. Effects of mindfulness based cognitive therapy (MBCT) and compassion focused therapy (CFT) on symptom change, mindfulness, self-compassion, and rumination in clients with depression, anxiety, and stress. *Frontiers in Psychology*. 2019;10:1099. [PMID: 31164849] [PMCID: PMC6534108] [DOI]

15. Hakimi Dezfouli ZS, Ebrahimpour G. The role of psychological flexibility, emotional empathy and spiritual experiences in predicting marital satisfaction of married women. *Studies in Islam and Psychology*. 2024.

16. Farzad V, Mardani F. Influences of Impulsivity and Psychological Flexibility on Empathic Abilities: A Quantitative Analysis. *Journal of Personality and Psychosomatic Research (JPPR)*. 2024;2(1):10-5. [DOI]

17. Yang X, Ebo TO, Wong K, Wang X. Relationships Between Psychological Flexibility and Internet Gaming Disorder Among Adolescents: Mediation Effects of Depression and Maladaptive Cognitions. *Plos One*. 2023;18(2):e0281269. [PMID: 36735753] [PMCID: PMC9897526] [DOI]
18. Mendes AL, Canavarro MC, Ferreira C. The roles of self-compassion and psychological flexibility in the psychological well-being of adolescent girls. *Current Psychology*. 2023;42(15):12604-13. [DOI]
19. Roehler DR, Guy Jr GP, Jones CM. Buprenorphine prescription dispensing rates and characteristics following federal changes in prescribing policy, 2017-2018: A cross-sectional study. *Drug and Alcohol Dependence*. 2020;213:108083. [PMID: 32505044] [PMCID: PMC9590643] [DOI]
20. Bond FW, Hayes, Steven C, Baer, Ruth A, Carpenter, Kenneth M, Guenole, Nigel, Orcutt, Holly K, Waltz, Tom, Zettle, Robert D. Preliminary Psychometric Properties of the Acceptance and Action Questionnaire-II: A Revised Measure of Psychological Inflexibility and Experiential Avoidance. *Behavior Therapy*. 2011;42(4):676-88. [PMID: 22035996] [DOI]
21. Shiralinia K, Abdollahi Musavi H, Khojastemehr R. The effectiveness of of Group Acceptance and Commitment Therapy (ACT)-Based Training on Parenting Stress and Psychological Flexibility in Mothers of Children with Autism Spectrum Disorder. *Psychology of Exceptional Individuals*. 2018;7(28):21-44. [DOI]
22. Asadi H, Mohammadi M, Naziri G, Davoodi A. Comparing of Clinical Efficacy of ACT Matrix with ACT Focused on Compassion and Hofmann's CBT on Social Anxiety Disorder. *Applied Psychology*. 2023;17(2):61-33. [DOI]
23. Guillen KM. Evaluating the Impact of a Compassion Focused Therapy Group on Parent and Caregiver Psychological Flexibility: The University of Western Ontario (Canada); 2022.
24. Alizadeh A, Afkaneh S, Banisi P. The Effectiveness of Emotion-Focused Therapy on Psychological Flexibility, Vitality, and Happiness in Couples. *Journal of Psychology and Educational Sciences in the Third Millennium*. 2022(15).
25. Ardestani SY, Shakib N, Yousefi S. The Effectiveness of Emotion-Focused Cognitive Therapy on Cognitive Flexibility and Rumination of Adolescents With Practical Obsessive-Compulsive Disorder. *Journal of Studies and Psychological in Adolescents and Youth*. 2021;2(1):160-70. [DOI]