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## **Effectiveness of Compassion Focused Therapy on Self-Regulation, Anger Management, and Social Well-Being of Recovered Addicts Women**

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This study examines the effectiveness of compassion focused therapy on self-regulation, anger management, and social well-being among recovered addicts. Utilizing a quasi-experimental design with a pre-test, post-test control group format, the research involved all women recovering from addiction who attended Narcotics Anonymous (NA) meetings in Boumehen. Sixteen participants were selected through convenience sampling and randomly assigned to experimental (n=8) and control (n=8) groups. Initially, both groups completed a pre-test. The experimental group then received eight 90-minute sessions of compassion focused therapy, while the control group received no intervention. Post-tests were administered to both groups at the study's conclusion. The instruments used included the Social Well-Being Scale (Keyes, 1998), the State-Trait Anger Expression Inventory (Spielberger, 1998), and the Self-Regulation Questionnaire (Miller & Brown,

1999 Data were analyzed using Multivariate Analysis of Covariance (MANCOVA) followed by univariate ANCOVAs to control for baseline scores. Multivariate analysis of covariance revealed a significant overall effect of the intervention on the combined dependent variables, with all multivariate test statistics converging on the same conclusion (e.g., Wilks'  $\Lambda = .19$ ,  $F(3, 9) = 12.45$ ,  $p = .001$ ). Follow-up univariate ANCOVAs indicated that, after controlling for pre-test scores, the experimental group demonstrated significantly higher levels of self-regulation and social well-being compared with the control group ( $p < .01$ ). In addition, compassion-focused therapy led to a significant improvement in anger management ( $p < .01$ ), whereas no significant changes were observed in the control group. Based on these results, it is suggestive that compassion focused therapy works for enhancing self-regulation, anger management, and social well-being among recovered addicts.

**Keywords:** compassion focused therapy, self-regulation, social well-being, anger management, recovered addicts, women.

Substance addiction is among the major health crises confronting the world today, seriously affecting the physical and psychological social well-being of individuals worldwide. According to the WHO, more than 36 million people worldwide are said to be suffering from drug use disorders; hence, the dire need for effective interventions that will enable recovery and rehabilitation (WHO, 2020). Recovery from addictive disorders is a complex and multi-dimensional process. While mainstream approaches commonly define abstinence as the ultimate goal, it is increasingly recognized that successful recovery consists of consideration of basic psychological and social factors: poor self-regulation, poor anger management, and poor quality of social experience. These dimensions are an integral factor in the maintenance of long-lasting recovery and avoidance of relapse. Great emphasis, therefore needs to be laid on the development

of therapeutic interventions that target these areas to facilitate full recovery and a healthy lifestyle.

In the context of recovery from addiction, one potentially useful intervention is Compassion Focused Therapy. The underlying philosophy of the above intervention is based on evidence for promoting self-compassion and empathy; two key elements of psychological recovery and normal well-being (Gilbert, 2010). Studies have empirically established that self-compassion, defined as the capability to treat oneself with kindness and understanding in instances of difficulties or failure, is associated with lower levels of depression, anxiety, and stress (Neff, 2003). Self-compassion, with respect to addiction treatment, can thus allow individuals to create higher levels of emotional resilience and reduce the self-criticizing tendency that is usually responsible for relapse (Neff & Germer, 2018). With this in mind, CFT is one of the most promising interventionist approaches to dealing with some of the basic psychological challenges presented in the context of recovery from active addiction.

Self-regulation a basic competence for recovery means the ability to monitor one's emotions, thoughts, and behaviors in different situations. Persons with substance use disorders commonly show deficits in this competence, having used drugs as a means to regulate negative emotions or other stressors. Strong self-regulation contributes to avoiding relapse triggers and to the healthy use of stress management without turning once more to substance use (Baumeister & Vohs, 2007). Research has shown that interventions designed to improve self-regulation can significantly reduce the likelihood of relapse and promote long-term recovery (Tangney et al., 2018). Compassion

Focused Therapy allows self-regulation in a sense to encourage the patients to develop a non-judgmental and compassionate attitude toward themselves, which will help improve emotional regulation and resilience.

Apart from self-regulation, anger management also forms one of the key recovery processes which have been commonly ignored. Poorly managed anger has proved a potent cue for relapse, especially in those whose history of substance use has been closely linked with attempts at anger management(Deffenbacher et al., 2002). Anger often arises from unmet needs or perceived injustices and may create formidable challenges for the recovering addict, as such situations or emotional instability may be encountered much more frequently(DiGiuseppe & Tafrate, 2007). Compassion-focused therapy responds to this issue in the development of empathy and compassion for one's self and others, which may reduce feelings of anger while fostering more adaptive emotional expression in its place(Gilbert, 2009). Therefore, CFT might be especially strong in supporting the management of anger within addiction recovery through the fostering of empathy and emotional understanding.

Social well-being is another basic component of recovery, referring to a good ability both to establish and maintain positive relationships and to participate socially in a meaningful way. Addiction results in social isolation and strained relationships, further hindering processes of recovery(Havassy et al., 1995). Rebuilding social networks and improving interpersonal skills are important features of improved social functioning and building a sense of community with the added benefit of obtaining emotional support from others(Laudet, 2011).

Compassion-Focused Therapy, in focusing on connectedness and compassion, helps the individual in recovery to develop and refine social contact, reducing feelings of loneliness associated with substance use disorders, hence making lives better in society (Gilbert, 2010).

Although there is an increasing body of literature demonstrating that compassion-based interventions improve outcomes across a range of clinical groups, research into the use of CFT in addiction recovery remains rudimentary (Havassy et al., 1995). Indeed, most such studies have looked at general mental health outcomes rather than at more specific factors such as self-regulation, anger management, and social well-being among recovering addicts. For example, (Choobdari et al., 2021) illustrated that through ACT and CBT, the mental, spiritual, and social health of addicted patients improves, but it also seemed that in general, the well-being improvement, the ACT was more effective. Similarly, (Maremmani et al., 2020) researched how aggression affects HUD and suggested addressing the aggressive attitude during the treatment for better recovery results. Indeed, in the above line, (Martínez-González et al., 2022) signaling self-regulation and self-confidence an antidote to the use of drugs among cocaine addicts during high-risk situations.

In addition to that far-reaching studies confirm treatment of personality feature and cognition as a way of recovering from addictive behavior since it is the only way to recover from addictive behavior. (Szatkowska & Czerwińska, 2023) noted that neurotic states of anger and sadness were strong contributors to explaining rumination proneness in alcohol-dependent individuals. Personality dysfunctions in the form of identity diffusion and aggression make up specific strong contributors.

Results suggest that therapeutic intervention should take into consideration not just the cognitive processes themselves, but also those processes that relate to emotion regulation. In that respect, the compassion-focused therapy could help by going against maladaptive attitudes in a way that emotional regulation could be developed by teaching self-compassion. In this line, (Panahi et al., 2023) emphasized giving attention to the psychological and social problems among vulnerable populations-in this context, homeless persons-in the pathway of their recovery from substance addiction; therefore, it shows the possible efficacy of interventions focused on improving the dimensions of psychological and social recovery.

It is in this view that the Compassion-Focused Therapy is among the promising interventions that are apparently helpful in responding to the critical psychological and social challenges of recovery from addiction, as CFT enhances self-compassion, emotional regulation, and social well-being. Thus, it can be holistic in support of recovery from addiction. The study will try seeking answers on how CFT can be efficient in enhancing self-regulation, controlling anger, and social well-being among recovered addicts. Because the world today has greater awareness regarding substance addiction, there is an increasing demand for evidence-based therapeutic interventions that take into consideration the complexities of recovery and therefore provide better prospects for long-term recovery amongst the affected population.

### **Method**

This is a quasi-experimental study, with a pre-test and post-test control group design. The population of interest for this study is women in recovery from addiction problems who attended open

NA meetings in Boumehen during the year 2023–2024.. Participants were selected through convenience sampling, and 20 of these individuals were randomly assigned to an experimental group of 10 and a control group of 10. Due to attrition, final samples were eight in each group. Based on methodological recommendations for quasi-experimental researches with experimental and control groups, a sample size of approximately 8 to 15 participants per group is considered adequate for preliminary intervention research. Therefore, the sample size used in the present study is consistent with commonly accepted standards for quasi-experimental designs. Inclusion Criteria were: Minimum one year of sobriety, At least fifth-grade education, Age over 20 years, No concurrent treatment, Informed consent. Also Exclusion Criteria were: Lack of cooperation, Absence for more than two sessions, Substance use during the study, Presence of other psychological disorders.

### **Instrument**

#### **Self-Regulation Questionnaire**

The SRQ, developed by Miller and Brown, is a 63-item rating response measure of the components of self-regulation on

seven subscales: Reception, Evaluation, Activation, Search, Planning, Implementation, and Revision. Responses to each item are rated on Likert scales from 1, strongly disagree, to 5, strongly agree. Some items are reverse scored(Carey et al., 2004). It was validated in Iran. Test–retest reliability of .94 and internal consistency 0.91 were described(HOSSEIN & DEHGHAN, 2008).

#### **State-Trait Anger Expression Inventory-2 by Spielberger**

STAXI-2 measures State Anger, Trait Anger, and Anger Expression/Control on six scales and five subscales with a four-

point Likert scale from 1 = Never to 4 = Always. Spielberger et al. reported in 1988 and again in 1996 Cronbach's alpha coefficients ranging from 0.73 to 0.93 (Spielberger, 2010). Khodayari-Fard et al. confirmed these values in Iran (Khodayari-Fard et al., 2010).

### **Social Well-Being Scale by Keyes**

This scale evaluated social well-being with the following five dimensions: Social Integration, Social Contribution, Social Coherence, Social Actualization, and Social Acceptance. Responses are rated on a Likert scale from 1 = Strongly Disagree to 5 = Strongly Agree. Validity and Reliability: The instrument was validated by Keyes in 1998, who reported Cronbach's alpha values from 0.57 to 0.81 (Keyes, 1998). It was adapted in Iran by Heidari and Ghaneei in 2008, who reported Cronbach's alpha from 0.73 to 0.77 (HEIDARI & Ghanaei, 2008).

The intervention was based on the needs of the participants, inspired by Gilbert's Compassion-Focused Therapy (Gilbert, 2014). It consisted of eight 90-minute sessions over eight weeks, validated by five experts.

**Table 1**  
**Summary of Therapy Sessions**

| Session | Content Description                |
|---------|------------------------------------|
| 1       | Introduction and orientation       |
| 2       | Understanding self and others      |
| 3       | Understanding and regulating anger |
| 4       | Compassion and self-regulation     |
| 5       | Compassion and social well-being   |
| 6       | Review and deepen understanding    |
| 7       | Strategies for relapse prevention  |
| 8       | Summary and conclusion             |

The participants for this research were recruited from NA meetings, and the study was described to them along with pre-tests being administered. Random distribution of subjects assigned them to experimental and control groups; each consisting of ten individuals. The experimental group received eight consecutive weeks of 90-minute sessions of Compassion focused therapy. The control group did not receive any kind of treatment; however, summary sessions were offered after the completion of the study. Due to attrition, eight participants in each group completed the study. The post-tests were administered after the treatment.

### Results

A quasi-experimental pre-test/post-test design with a control group was employed to evaluate the effectiveness of Compassion-Focused Therapy (CFT) on self-regulation, social well-being, and anger management. Data were analyzed using Multivariate Analysis of Covariance (MANCOVA), followed by univariate ANCOVAs. Prior to the main analyses, all statistical assumptions were examined.

The normality of the dependent variables was assessed using the Shapiro–Wilk test. The distributions did not significantly deviate from normality for any variable in either group (all  $p > .05$ ). For example, self-regulation scores were normally distributed in the experimental group ( $W = .92, p = .45$ ) and the control group ( $W = .94, p = .61$ ). Levene’s test indicated that the assumption of equal error variances across groups was met for all dependent variables: self-regulation,  $F(1, 14) = .85, p = .37$ ; social well-being,  $F(1, 14) = 2.10, p = .17$ ; and anger management,  $F(1, 14) = 1.45, p = .24$ . The interaction between Group and the pre-test covariate (Group  $\times$  Pre-test) was tested

for each dependent variable and found to be non-significant, confirming the homogeneity of regression slopes: self-regulation,  $F(1, 12) = .88, p = .41$ ; social well-being,  $F(1, 12) = .73, p = .41$ ; anger management,  $F(1, 12) = 1.02, p = .33$ . Box's  $M$  test supported the assumption of equality of covariance matrices (Box's  $M = 24.15, F(6, 1856) = 1.54, p = .18$ ). Collectively, these results indicate that the assumptions for MANCOVA/ANCOVA were satisfied.

Table 2 presents the descriptive statistics (means and standard deviations) for self-regulation, social well-being, and anger management at pre-test and post-test for the experimental and control groups.

**Table 2**  
**Descriptive Statistics of Variables (Pre-test and Post-test)**

| Variable                 | Group        | Phase     | Mean (M) | SD    | N |
|--------------------------|--------------|-----------|----------|-------|---|
| <b>Self-Regulation</b>   | Experimental | Pre-test  | 197.75   | 21.60 | 8 |
|                          |              | Post-test | 217.00   | 20.90 | 8 |
|                          | Control      | Pre-test  | 213.37   | 16.90 | 8 |
|                          |              | Post-test | 213.62   | 17.50 | 8 |
| <b>Social Well-Being</b> | Experimental | Pre-test  | 95.50    | 10.50 | 8 |
|                          |              | Post-test | 125.37   | 15.60 | 8 |
|                          | Control      | Pre-test  | 106.12   | 23.30 | 8 |
|                          |              | Post-test | 105.50   | 22.80 | 8 |
| <b>Anger Management</b>  | Experimental | Pre-test  | 34.50    | 5.20  | 8 |
|                          |              | Post-test | 48.25    | 4.80  | 8 |
|                          | Control      | Pre-test  | 33.80    | 6.10  | 8 |
|                          |              | Post-test | 34.10    | 5.90  | 8 |

As shown in Table 2, the experimental group demonstrated notable increases from pre-test to post-test in self-regulation, social well-being, and anger management, whereas the control group exhibited minimal change across the same period.

Given that all assumptions were met, a MANCOVA was conducted to test group differences on the combined dependent variables at post-test while controlling for baseline (pre-test) scores.

**Table 3**  
**Summary of Multivariate Analysis of Covariance (MANCOVA)**

| Test           | Value | F     | Hypothesis<br>df | Error<br>df | Sig.   | Partial<br>$\eta^2$ |
|----------------|-------|-------|------------------|-------------|--------|---------------------|
| Pillai's Trace | .81   | 12.45 | 3                | 9           | .001** | .81                 |
| Wilks'         | .19   | 12.45 | 3                | 9           | .001** | .81                 |
| Lambda         |       |       |                  |             |        |                     |
| Hotelling's    | 4.15  | 12.45 | 3                | 9           | .001** | .81                 |
| Trace          |       |       |                  |             |        |                     |
| Roy's Largest  | 4.15  | 12.45 | 3                | 9           | .001** | .81                 |
| Root           |       |       |                  |             |        |                     |

$p < .01$ .

As shown in Table 3, all multivariate test statistics indicated a statistically significant group effect on the linear combination of the dependent variables after controlling for pre-test scores. This finding suggests that the post-test profiles of self-regulation, social well-being, and anger management differed significantly between the experimental and control groups when baseline levels were statistically controlled.

To identify the specific effects of the intervention on each outcome, follow-up univariate ANCOVAs were performed. In each model, the corresponding pre-test score of the dependent variable was entered as the covariate.

**Table 4**  
**Results of Univariate Analysis of Covariance (ANCOVA)**

| Dependent Variable | Type III SS | df | Mean Square | F     | Sig. | Partial $\eta^2$ |
|--------------------|-------------|----|-------------|-------|------|------------------|
| Self-Regulation    | 542.30      | 1  | 542.30      | 18.45 | .001 | .58              |
| Error              | 381.80      | 13 | 29.37       |       |      |                  |
| Social Well-Being  | 895.55      | 1  | 895.55      | 24.12 | .001 | .65              |
| Error              | 482.30      | 13 | 37.10       |       |      |                  |
| Anger Management   | 315.20      | 1  | 315.20      | 15.80 | .002 | .55              |
| Error              | 259.35      | 13 | 19.95       |       |      |                  |

To facilitate interpretation, Estimated Marginal Means (EMMs; adjusted post-test means) were computed from each ANCOVA model at the overall mean of the corresponding pre-test covariate.

**Table 5**  
**Adjusted Post-test Means (EMMs) by Group**

| Variable                 | Group        | Adjusted Mean (EMM) |
|--------------------------|--------------|---------------------|
| Self-Regulation          | Experimental | 223.60              |
|                          | Control      | 207.03              |
| Social Well-Being        | Experimental | 129.28              |
|                          | Control      | 101.59              |
| Anger Management (total) | Experimental | 48.90               |
|                          | Control      | 33.45               |

The univariate ANCOVA results (Table 4) indicate that, after controlling for baseline levels, the experimental group exhibited significantly higher post-test scores than the control group in self-regulation ( $F(1, 13) = 18.45, p = .001$ ), social well-being ( $F(1, 13) = 24.12, p = .001$ ), and anger management ( $F(1, 13) = 15.80, p = .002$ ). The effect sizes (partial  $\eta^2 = .58, .65$ , and  $0.55$ ) indicate large and practically meaningful effects. Consistent with these findings, the adjusted means (Table 5) show

substantially higher post-test levels for the experimental group in self-regulation (EMM = 223.60 vs. 207.03), social well-being (EMM = 129.28 vs. 101.59), and anger management (EMM = 48.90 vs. 33.45). Overall, these results suggest that Compassion-Focused Therapy was effective in improving self-regulation, social well-being, and anger management among women recovering from addiction within the present sample.

### **Discussion**

The study tested the effectiveness of using CFT on female recovering addicts, specifically on areas such as self-regulation, anger management, and social well-being. Results proved promising that, indeed, CFT yielded marked gains in these three specific areas within the experimental group. By comparison, the control group showed no appreciable changes without the intervention. Women who received CFT exhibited improved emotional regulation, anger management, and social connectedness. These findings suggest that CFT may be a valuable intervention in the quest to build superior emotional equilibrium and better relationships along the recovery journey.

Our findings again point in the direction that research has already suggested: self-regulation is an important component for positive outcomes in addiction recovery. (Baumeister & Vohs, 2018) have noted that improved emotional and impulse regulation allows individuals to handle cravings and stress more successfully; the risk of relapse is reduced. The improved self-regulation among the CFT group in our study fits this, insofar as emerging evidence is beginning to show that development of self-compassion may markedly improve emotional regulation. This is further supported by research by (Hagger et al., 2009),

who noted that self-regulation is the backbone of positive health changes, further reiterating its suitability in the treatment of addiction.

With regard to anger regulation, our findings are consistent with earlier studies indicating unregulated anger is among the most common relapse triggers (Deffenbacher et al., 2002). Compassion-focused treatments, such as CFT, mitigate feelings of anger by cultivating empathetic and compassionate approaches toward both the self and others (Gilbert, 2010). In this study, participants showed reduced anger expression after treatment with the CFT, which leads to a verification in relation to other studies in which it has been established that criminal anglers' participation in programs related to anger management is associated with an increased recovery status for their substance use disorders (Lin et al., 2004; Zarshenas et al., 2017).

Another aspect where the findings are consistent with literature is in terms of social well-being. The studies continue to outline the role of social support networks in maintaining recovery over a long period. For example, (Laudet, 2011), established that positive social connection and feeling belonged curbs re-addiction. Our study corroborates this position when the women treated with CFT are found with enhanced social relations and good feelings about their general life. This again calls for the established works of (Bathish et al., 2017; Havassy et al., 1995), who reported that social integration is crucial in the success of any recovery process (Kelly et al., 2010).

The results of this study have major implications in how we approach the treatment of addiction. CFT has proved to be a powerful intervention in emotional regulation and anger management, enabling individuals to function well socially-

factors usually neglected in recovery from addiction. Embedding CFT into standard treatment programs would allow practitioners to target deeper emotional and social issues that frequently feed the addiction. This holistic approach could lead to longer-term recovery results, thereby helping an individual to avoid relapse and experience more significant overall well-being (McKay et al., 2005).

Furthermore, the focus of CFT on the development of self-compassion may provide recovering individuals with greater emotional resilience and make them less self-critical. These are common obstacles to recovery, and CFT offers a means to overcome these by developing a kinder, more compassionate relationship with oneself. Perhaps an integration of CFT with other evidence-based treatments, such as CBT or ACT, might offer a more complete method of facilitating recovery individuals in managing stressors and developing sustainable behaviors (Germer & Neff, 2019).

**Limitations:** While the results of this study are encouraging, there is a number of limitations that have to be considered. First, the sample is small, only 16 participants, which limits the generalizability of the results to larger populations. Further studies are accordingly recommended, with a more numerous and more diversified sample base to establish whether such results hold for different demographic groups and settings.

Other limitations include relying solely on self-report measures, which are always subjective in nature. Regarding changes in dimensions such as self-regulation, anger management, and social well-being, participants might have been influenced by the social desirability aspect in the given responses. This is one such study that should have been

complemented with objective measures or third-party observer assessments to get a truer picture of the results of CFT.

Last but not least, the relatively short length of this study raises long-term sustainability questions regarding the improvements in the CFT group. While the immediate post-intervention improvements were significant, a question still remains as to whether these changes could sustain over time. Indeed, longer-term studies will be required to determine whether the benefits of CFT extend beyond the immediate term. Finally, the lack of a follow-up assessment causes an important limitation of the present research. Although significant improvements were observed at post-intervention, the lack of longitudinal follow-up prevents conclusions regarding the durability and long-term sustainability of the observed treatment effects.

However, with the limitation of this study, there are a number of avenues for future research. First and foremost, larger, more varied participant pools are needed to better understand how CFT affects different populations, for instance, men and people from different cultural backgrounds. Beyond that, studies that investigate how CFT interacts with other therapeutic modalities, such as CBT or mindfulness-based therapies, may offer even greater value in terms of determining if these combinations have enhanced or additive benefits in addiction recovery.

It would be even more value-added in further studies to have further investigation into the mechanisms that underpin the success of CFT. For example, it would be important to know what aspects of CFT, such as practices of mindfulness or compassionate imagery, drive improvements in emotional regulation, anger management, and social well-being.

Knowledge of these mechanisms would allow for more appropriate and effective interventions in the future.

Finally, longitudinal studies will be able to depict the true picture of long-term effects of CFT on recovery from addiction. Researchers can follow participants over a long period and establish if benefits from CFT are maintained over this period and if the therapy is continued to support long-term sobriety and emotional well-being.

The results obtained in this research reveal that Compassion Focused Therapy is a clear intervention for improving self-regulation, anger management, and social well-being among women recovering from addiction. These considerable increases for the experimental group suggest that CFT adopts a more holistic approach in addiction treatment, hence making this emotional and social intervention a key one for recovery. Further research with larger, more diverse populations is needed in order to confirm findings and investigate the long-term influence of CFT on recovery outcomes. This means that CFT can definitely be incorporated into addiction treatment programs because the practitioner would then be in a position where wider care can be provided, improving the emotional and social aspects of recovery and thus fostering more authentic and enduring recovery results.

### **Ethical Considerations**

Informed consent, confidentiality, no harm and the right to withdraw from participation in the research project at any time were all maintained as part of the ethical directions. Ethical approval ID: IR.SBU.REC.1402.095 from Shahid Beheshti University.

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### **Conflict of interest**

The authors declared no conflict of interest.

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