Iran J Psychiatry Behav Sci. 2018 December; 12(4):e80945. doi: 10.5812/ijpbs.80945.

Published online 2018 October 28. **Original Article**

# A Randomized Controlled Trial of Compassion Focused Therapy for Social Anxiety Disorder

Banafsheh Gharraee[1], Komeil Zahedi Tajrishi[2,*], Abbas Ramezani Farani[1], Jafar Bolhari[3] and Hojjatollah Farahani[4]

[1]Department of Clinical Psychology, School of Behavioral Sciences and Mental Health, Tehran Institute of Psychiatry, Iran University of Medical Sciences, Tehran, Iran
[2]School of Behavioral Sciences and Mental Health, Tehran Institute of Psychiatry, Iran University of Medical Sciences, Tehran, Iran
[3]Department of Community Psychiatry, Spiritual Health Research Center, School of Behavioral Sciences and Mental Health, Tehran Institute of Psychiatry, Iran University of Medical Sciences, Tehran, Iran
[4]Department of Psychology, Tarbiat Modares University, Tehran, Iran

[*]*Corresponding author*: Komeil Zahedi Tajrishi, School of Behavioral Sciences and Mental Health, Tehran Institute of Psychiatry, Iran University of Medical Sciences, Tehran, Iran. Tel/Fax:+98-2166551668, Email: zahedi.komeil@gmail.com

**Received** 2018 June 17; **Revised** 2018 August 13; **Accepted** 2018 August 26.

## Abstract

**Background:** One of the most common anxiety disorders is the social anxiety disorder (SAD), which is characterized by intolerable anxiety and self-consciousness in daily social situations. A large body of study is conducted on the treatment of this disorder, though further studies are required on new psychological therapies.
**Objectives:** The present study aims to evaluate the effectiveness of compassion focused therapy (CFT) on patients with SAD.
**Methods:** The present randomized controlled trial study, which is along with pre-test, post-test, and follow-up with control group, 34 subjects who based on the structured clinical interview for DSM (SCID) had the criteria for social anxiety disorder on the basis of DSM-IV-TR, and had no other severe psychiatric disorders, were assigned completely randomly and equally into experimental and control groups. The experimental group was treated with 12 one-weekly CFT sessions, whereas the control group did not receive any treatment. At the beginning of the research, after 12 weeks and after a follow-up period of 8 weeks, all subjects were evaluated with acceptance and action questionnaire (AAQ-II), mindful attention awareness scale (MAAS), levels of self-criticism scale (LOSC), self-compassion scale (SCS), World Health Organization quality of life-BREF (WHOQOL-BREF), and Liebowitz social anxiety scale (LSAS) instruments. In addition to descriptive statistics, repeated measure analysis of variance (RM-ANOVA) was used in order to analyze the findings and using SPSS-21 software all analyzes were conducted.
**Results:** Based on the RM-ANOVA, CFT was significantly more effective than non-treatment in reducing psychological inflexibility, self-criticism, and severity of social anxiety symptoms ($P < 0.001$) in both post-test and two months' follow-up. Moreover, CFT was able to significantly increase the mindfulness levels, self-compassion, and quality of life in patients with social anxiety ($P < 0.01$).
**Conclusions:** Compassion-focused interventions apparently play a quite effective role in reducing symptoms and increasing the quality of life of patients with social anxiety disorder.

*Keywords:* Compassion, Mindfulness, Psychotherapy, Self-Criticism, Shame, Social Anxiety Disorder

## 1. Background

One of the most common anxiety disorders is social anxiety disorder (SAD), which is characterized by intolerable anxiety and self- consciousness in daily social situations. With an annual prevalence of 6.8%, the disorder is ranked second among anxiety, mood, and substance abuse disorders (1). People with SAD suffer with severe, persistent, and chronic fear of being judged by others and worried that their work can lead to their embarrassment (2, 3). The deep fear of patients with SAD usually avoids them from social situations, which in addition to developing discomfort in these patients, causes significant functional problems in the social, occupational, and personal domains of their lives (4).

Numerous psychological treatments were used for this disorder, among which, the cognitive behavioral therapy (CBT), including exposure trainings, currently has the most empirical support for the social anxiety disorder (5, 6). However, much attention has been recently paid to poor progress and ongoing dissatisfaction with life in those who received this treatment (7).

Moreover, past studies indicated that self-criticism can be a weaker result predictor for the therapeutic approaches (8). By creating difficulty in establishing a strong

Copyright © 2018, Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/) which permits copy and redistribute the material just in noncommercial usages, provided the original work is properly cited.

therapeutic relationship, seemingly self-criticism prevents positive therapeutic outcomes (9). Furthermore, based on our knowledge, high self-criticism is one of the main characteristics of patients with social anxiety disorder (10). This is probably the reason why some studies indicated that traditional psychiatric approaches, namely, cognitive-behavioral approaches have sometimes failed to treat people with social anxiety disorder (7). In other words, CBT is inefficient for some people, leading to an increase in the interest in new therapies recognized as the "the third wave of cognitive-behavioral therapy" (11, 12).

Compassion focused therapy (CFT) is one of the third wave treatments, which has recently been put into much consideration. Such integrated therapy has a bio-psycho-social model, and was created through the integration of evolutionary and neuroscience models in the field of emotional regulation. CFT is primarily designed for individuals with high levels of shame and self-criticism, such as those suffering social anxiety (13, 14). This approach was developed based on observations that indicated individuals with high levels of self-criticism experience problems in regard with sense of security and intimacy in interpersonal relationships. Moreover, individuals suffering from high levels of shame and self-criticism did not usually have a good performance in CBT, they could not indicate emotional responses tailored to the appropriate thoughts (15-17).

From the CFT point of view there are different forms and functions of self-criticism. One form focuses on feeling inadequate. However, there is another form that is linked to hatred of the self. These are quite different and should be distinguished in therapy. Functional analysis of self-criticism is very important in CFT. Some when there is no specific function, however, clients may see self-criticism as having a range of functions, like ensuring that they pay attention to mistakes. Self-criticism can act as an alarm. Therefore, in CFT we teach how compassion suggests a different way for self- improvement (13). In summary, CFT sees self-criticism as safety strategies. CFT spends time with clients explaining these classical conditioning models as well as the importance of self-monitoring and self-criticism. The more of a framework clients have for understanding their self-criticism as linked to safety strategies, the more collaborative in engaging with these memories and developing self-compassion they can be (13, 15).

CFT is widely described, though limited empirical studies were published in this regard (18). In a preliminary study conducted through case study on six patients with SAD, the results suggested the satisfaction of patients with this treatment in coping with social anxiety as well as reducing embarrassment and self-criticism (18). In another study conducted by Gilbert and Procter on patients with chronic mental disorders in the hospital, it was found that 12 weekly therapy sessions significantly reduced depression, anxiety, self-criticism, embarrassment, and feelings of humility and self-humiliating behaviors (19).

By and large, the clinical studies conducted globally are rather limited due to the novelty of this approach. These studies yielded remarkable results, however, there is a great need to replicate and extend these studies, especially in a controlled way in different fields.

## 2. Objectives

To the best knowledge of the author, there are no similar controlled studies to the date of publication of this study in our country. In this line, the present study aims to evaluate the effectiveness of CFT on reducing severity of social anxiety symptoms and self-criticism also, improvement of mindfulness levels, self-compassion, and quality of life in patients with social anxiety disorder.

## 3. Materials and Methods

### 3.1. Design

The present study is a randomized control trial (RCT) in parallel method with a pre-test, post-test, and follow-up design with control group that was conducted between November 2017 to June 2018. The research was carried out based on the Helsinki declaration guidelines.

### 3.2. Sampling

The sample size was based on previous studies (5) and considering, the test power (0.80) and the significance level (0.95) were obtained 15 patients for each group. Considering the drop out, 2 patients were added to each group (Equation 1).

$$n = 2\frac{\left(z_{1-\frac{\alpha}{2}} + z_{1-\beta}\right)^2}{\Delta^2 + 1} \quad (1)$$

All patients (34 patients) after signing an informed consent form and based on the inclusion and exclusion criteria were completely randomly and equally assigned into experimental and control groups. Of course, two patients in the control group were not willing to continue the research process due to the fact that they wanted to start the drug treatment process and were excluded from the study. Figure 1 shows the flow of participants through each stage of the randomized trial.

The inclusion criteria included suffering social anxiety disorder based on DSM-IV-TRdiagnostic criteria (in case of other psychiatric diagnoses; SAD diagnosis should have been clearly identified as the primary diagnosis), age range 20 - 40 for participation in research, and the minimum diploma education. Exclusion criteria were selected in a

minimal way considering the significance of external validity of the research, which included: suffering other psychiatric disorders of the DSM first axis that are an obstacle to the treatment of social anxiety disorder (e.g. psychotic disorders, bipolar disorders with psychotic features), alcohol and substance abuse or dependency, suffering severe levels of personality disorders with serious communication problems including schizotypal, schizoid, paranoid, borderline, antisocial, and avoidant personality disorders (20), and severe physical illnesses such as cancer and positive HIV, whose physical illness should be prioritized for treatment; also the initiation of treatment with psychiatric drugs within the last three months or change of drug dose during that time.

In order to implement the research after the necessary coordination at the implementation site include School of Behavioral Sciences and Mental Health Clinic, Counseling Center of University of Tehran, and two private clinics; SCID-I and unstructured clinical interview was used to examine other axis one and personality disorders in order to investigate the inclusion and exclusion criteria. All diagnoses were approved by both the psychiatrist and the Ph.D. in clinical psychology. Considering the individual sessions of the treatment, each member of the sample was randomly assigned to a group by a person who did not know about the research and through flipping a coin. The CFT experimental group received 12 once-weekly individual treatment sessions of one hour based on the protocol used in the study of Boersma et al. (18). During the therapeutic sessions, the concepts of compassion, self-criticism reduction, emotion regulation systems, and compassionate exposure to anxious situations was dealt with, based on this step-by-step protocol, which was directly provided to the researcher through contacting the designer. The control group did not receive any treatment interventions and were merely put on the waiting list. It was explained for patients on the waiting list that their treatment process would begin after five months due to research purpose and at that time they are treated appropriately based on the results of the research. At this moment, the treatment of these patients has begun. The follow-up session was conducted two months after the last session of treatment for both groups.

A Ph.D. student in clinical psychology (the first author) implemented the therapeutic sessions and in order for treatment integrity, the therapeutic sessions of whole samples were audio recorded after obtaining their consent and an experienced clinical psychologist familiar with the therapeutic approaches of the third wave treatment randomly investigated some treatment sessions (20% of the sessions) to determine the therapist's loyalty to the relevant therapeutic principles.

### 3.3. Ethical Considerations

The study was conducted after registration in the Iranian registry of clinical trials center (IRCT, number: IRCT20180607040000N1) and approved by the Iran University of Medical Sciences Ethical Committee (ethics code: (IR.IUMS.REC 1396.9211521214)).

### 3.4. Measures

#### 3.4.1. Demographic Characteristics Questionnaire

The researchers designed this instrument, which is used to investigate the demographic characteristics of sample members, namely, age, gender, marital status, education, and job.

#### 3.4.2. Structured Clinical Interview for DSM-IV Axis I Disorders, Clinician Version (SCID-I/CV)

The SCID-I scale is a comprehensive standardized instrument for assessing major psychiatric disorders based on DSM-IV definitions and criteria designed for clinical and research purposes. The validity and reliability of this instrument has been confirmed in many countries including Iran (21, 22).

#### 3.4.3. Liebowitz Social Anxiety Scale (LSAS)

It is the most widely used social anxiety instrument, which has 24 items and two versions of clinician-administered and self-report. The Persian version of this instrument has proper psychometric properties (23).

#### 3.4.4. World Health Organization Questionnaire of the Quality of Life (WHOQOL-BREF)

WHOQOL-BREF is a 26-item self-report questionnaire that is designed to assess the quality of life in different aspects (24). The psychometric properties of this Persian questionnaire have already been confirmed (25).

#### 3.4.5. Acceptance and Action Questionnaire-Second Version (AAQ-II)

Bond et al. (2007), developed this questionnaire, which consists of 10 questions and measures acceptance, empirical avoidance, and psychological inflexibility. In Iran, Abbasi et al. indicated that this instrument has reliability, validity, and satisfactory construct validity (26).

#### 3.4.6. Self-Compassion Scale (SCS)

This scale is a 26-item (5-point Likert) self-reporting instrument developed by Neff (2003) to measure self-compassion. The research conducted by Azizi et al. indicated a high reliability and validity for the above Persian scale (27).

Corrected Proof



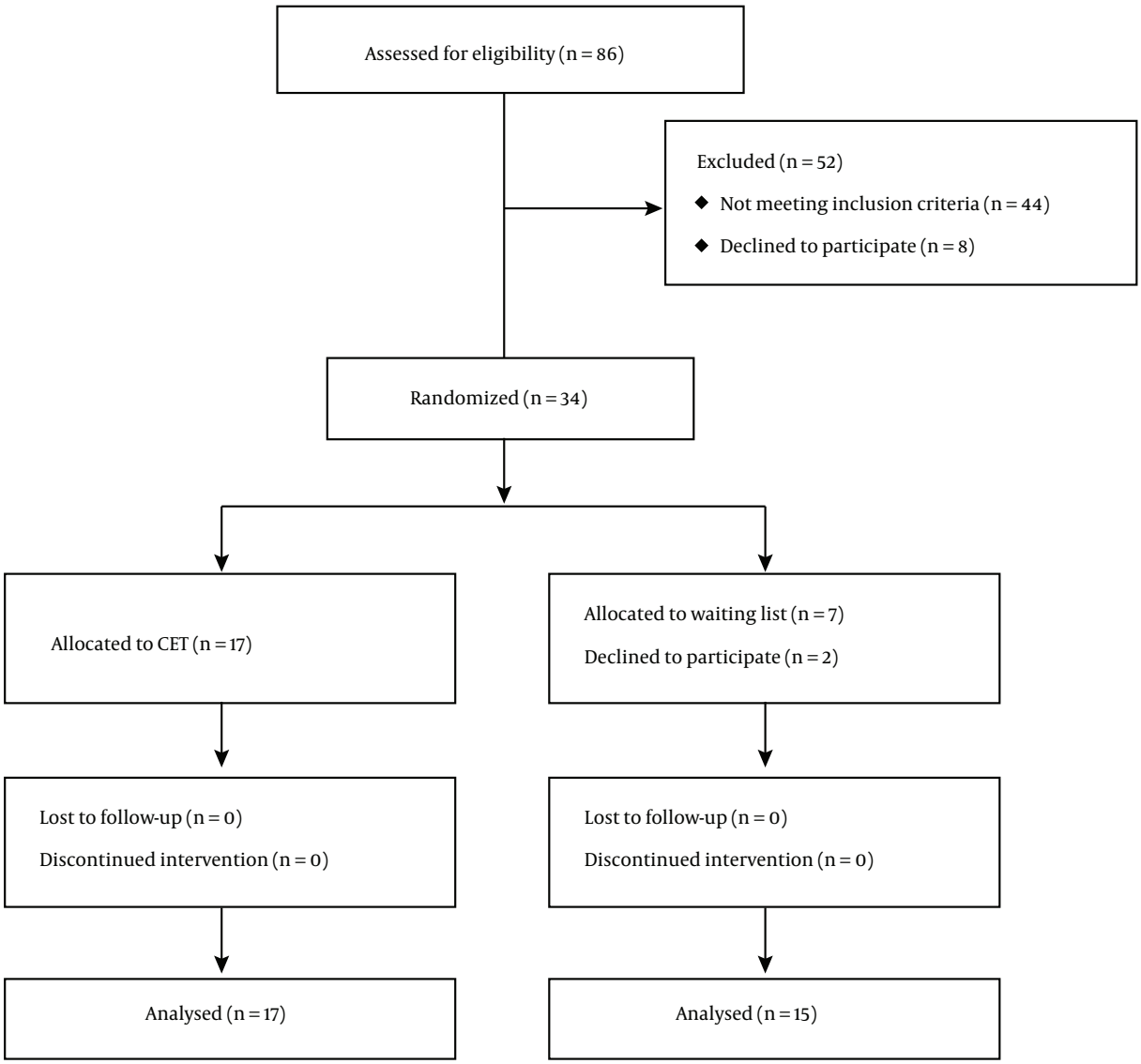


**Figure 1.** Participants flowchart

*3.4.7. Mindful Attention Awareness Scale (MAAS)*

This scale is a 15-question test (6-point Likert), developed by Ryan and Brown (2003), in order to measure the level of awareness and attention to current events and experiences in daily life. The psychometric properties of this Persian instrument have already been confirmed in various studies (28).

*3.4.8. Level of Self-Criticism Scale (LOSC)*

Thomson and Zuroff designed this scale (2004), which has 22 items (7-point Likert). The validity and reliability of self-criticism levels scale was evaluated and confirmed by Mousavi and Ghorbani on a Iranian sample (29).

*3.5. Outcome Measures*

The primary outcome reduced social anxiety symptoms and assessed by the LSAS one week after intervention. The secondary outcome measures were assessed by AAQ-II, MAAS, LOCS, SCS, LSAS, and WHOQOL-BREEF. For all of the outcome measures, it was hypothesized that the score differences between the two groups would remain significantly stable at two-month follow-up.

*3.6. Statistical Analysis*

In addition to descriptive statistics, repeated measure analysis of variance (RM-ANOVA) was used in order to analyze the findings, and SPSS-21 software was used for all conducted analysis.

## 4. Results

Table 1 presents demographic information. Based on the analysis results, there was no significant difference between age (P = 0.38), gender (P = 0.98), and education (P = 0.50) in both groups.

Table 2 presents the descriptive information of the research variables in the pre-test, post-test and follow-up stages divided by the groups. As seen, the mean scores of experimental group in the post-test and follow-up were higher than the control group, except for the two variables of LOSC and LSAS that lower scores indicating higher improvement.

Repeated measures analysis of variance with repeated on a factor was used for investigating the significance of these differences. Research variables were considered as within subject factors and group variable as between subject factor. Before using this statistical method, its assumptions, namely, investigation of the normal distribution using the Kolmogorov-Smirnov (K-S) test, and the variance homogeneity by Leven's test was examined for all variables, this method was allowed given their significance levels ($P > 0.05$).

The statistics related to Mauchly's test of sphericity of the studied variables are reported in Table 3. Regarding the fact that this test was significant in all variables except for the quality of life, the results of the Greenhouse-Geisser test were reported and in respect to the quality of life, the Mauchly's test was reported. As presented in the results of Table 3, there is a significant difference between the two groups regarding all the variables studied considering the pre-test, post-test, and follow-up stages. The test power 1.00 indicates the significance accuracy of such effects.

Pairwise comparisons were used for paired investigation of significant differences between pre-intervention and post-intervention scores and after two months of follow-up, the results of which were entered in Table 4. Based on the data in this there there is a significant difference between the two stages of pre-test and post-test in the experimental and control groups ($P < 0.001$) and the effect size ranges 0.41 - 0.72, which is considered as an effect size higher than moderate.

Based on the results of comparing the scores of the variables in the post-test and follow-up of the experimental and control groups, these changes were significant only in three variables of self-criticism, social anxiety symptoms, and quality of life ($P < 0.01$). By investigating the mean scores of the groups, it can be argued that there was no significant drop in the experimental group treatment outcome except self-criticism variable, or it even improved in the two-months follow up. On the contrary, it had no change or had higher drop in the control group change ($P < 0.01$).

## 5. Discussion

The present study was conducted aiming at evaluating the effectiveness of CFT on patients with SAD and comparing them with the control group. The results of the present study indicated that CFT was significantly more effective than non-treatment in reducing psychological inflexibility, self-criticism, and severity of social anxiety symptoms ($P < 0.001$) in both post-test and two months' follow-up. Moreover, CFT was able to significantly increase the mindfulness levels, self-compassion, and quality of life in patients with social anxiety, whereas no-treatment conditions, these cases did not either have a significant change or declined during the follow-up period ($P < 0.01$).

There are not many controlled studies in the field of CFT, however, the results of the present study were consistent with most studies in this area (18, 30-32). The results indicated that CFT is an appropriate treatment for SAD symptom reduction and is therefore comparable in terms of effect size to ACT and CBT (33, 34). However, some studies also indicated the greater effect size of CBT compared to CFT (35). In the context of reducing shame and self-criticism, the results also showed that CFT is as effective as cognitive-behavioral group therapy and may even be stronger than it (36). These results can also be similar to the results of MBSR in the field of self-views in SAD patients (37).

It is better to begin with self-compassion and self-criticism variables, the obvious characteristic of CFT, in order to explain the results of the present research. Self-criticism thinking is usually a chronic thought that is a rather considerable barrier to preventing positive emotions. In other words, such thinking, for some people, makes them feel afraid of having a sense of intimacy with others, or makes this experience difficult for them. This fear is closely related to self-criticism (17). In addition, one of the constructs associated with self-criticism is self-compassion. Self-compassion means having a compassionate attitude towards self when exposed to internal weaknesses and physical and psychological pains (38). This construct is highly related to the mental health as well as adaptive psychological function and its high levels are associated with higher satisfaction with life, emotional intelligence, and social communication, while its low levels are associated with symptoms of depression, anxiety, embarrassment, self-criticism, and fear of failure (38, 39).

**Table 1.** Demographic Variables Depending on Group Membership[a]

| Variables | CFT | Waiting | Test-Statistic | P Value |
|---|---|---|---|---|
| **Sex** | | | $\chi^2 = 0.001$ | 0.98 |
| Men | 9 (53) | 9 (53) | | |
| Women | 8 (47) | 8 (47) | | |
| **Age** | 23.41 ± 4.58 | 22.00 ± 4.39 | t = 0.88 | 0.38 |
| **Education** | | | $\chi^2 = 1.39$ | 0.50 |
| Diploma | 6 (35) | 7 (41) | | |
| Bachelor | 8 (47) | 8 (47) | | |
| Master or above | 3 (18) | 2 (12) | | |

[a] Values are expressed as No. (%) or mean ± SD.

**Table 2.** Means and Standard Deviations of Studied Variables Scores in Pre-Test, Post-Test and Follow-Up[a]

| Variables | Pre-Treatment | Post-Treatment | Follow-Up |
|---|---|---|---|
| **CFT group** | | | |
| AAQ-II | 26.59 ± 6.87 | 31.94 ± 6.16 | 31.35 ± 6.12 |
| MAAS | 36.94 ± 8.46 | 43.59 ± 8.78 | 43.94 ± 8.13 |
| LOSC | 76.76 ± 15.49 | 52.94 ± 8.51 | 55.24 ± 9.44 |
| SCS | 64.53 ± 9.47 | 82.71 ± 8.79 | 79.41 ± 8.98 |
| WHOQOL-BREF | 68.94 ± 12.65 | 81.65 ± 11.40 | 87.06 ± 10.40 |
| LSAS | 74.06 ± 10.97 | 64.53 ± 10.74 | 60.12 ± 8.47 |
| **Waiting group** | | | |
| AAQ-II | 23.33 ± 5.23 | 22.87 ± 5.51 | 22.80 ± 6.33 |
| MAAS | 35.20 ± 7.21 | 33.80 ± 9.58 | 34.87 ± 9.29 |
| LOSC | 71.00 ± 15.63 | 76.00 ± 11.28 | 73.73 ± 10.10 |
| SCS | 63.80 ± 11.70 | 62.13 ± 11.48 | 60.33 ± 12.19 |
| WHOQOL-BREF | 66.33 ± 12.19 | 63.60 ± 8.57 | 60.13 ± 7.19 |
| LSAS | 73.13 ± 9.23 | 73.80 ± 6.92 | 78.93 ± 7.79 |

[a] Values are expressed as mean ± SD.

The treatment protocol of the present study highly emphasized on self-criticism and self-compassion variables. Much emphasis was placed on psychoeducation training in order to eliminate shame and increase empathic understanding of self and self-problems during the treatment sessions. Seemingly, as shown by the previous studies, these two variables are key factors in the treatment of various psychological disorders. The construct of self-compassion can be considered as a protective factor, where its increase makes individuals more resistant to mental disorders, while self-criticism is considered a significant risk factor (40).

CFT also focused on mindfulness exercises that were repeatedly raised both in sessions and as homework in the form of imaginative exercises and a safe place for clients. As the definition of compassion implies, "compassion involves being sensitive to one's own suffering and that of others with a deep commitment to the attempt to eliminate it, i.e. deep attention and vigilance with motivation" (41), mindfulness is a basic component of CFT. Mindfulness exercises increase the psychological flexibility of the clients and using the mindfulness experiment of self-assessments does not allow inconveniences and embarrassments to control their behavior, and by flexibly changing their viewpoints achieve a wider and more transcendental perspective (42).

By and large, it can be argued that CFT can reduce the symptoms of social anxiety disorder and increase the quality of life of clients through reducing self-criticism and increasing the compassionate and flexible perspective towards self and mindfulness.

The present study, like other studies, faced some limitations. For instance, the sample size is limited, which reduces the generalization of the results to a large community of patients with social anxiety disorder. In addition, the present study attempted to merely include those with social anxiety disorder, which also makes external validity somewhat problematic due to the high comorbidity rate of this disorder.

It is recommended that researchers in future studies apply this new therapy to various disorders and include further variables in projects with higher sample size as intermediary variables so that our knowledge of this area increase through maximized elimination of limitations.

## Acknowledgments

The researcher thanks all the clients who participated in the research.

**Table 3.** Greenhouse-Geisser and Sphericity Assumed Test Results According to Mauchly's Test of Sphericity

| Variables | Mauchly's Test of Sphericity | | | Greenhouse-Geisser Test | | | | Partial Eta Squared | Observed Power |
|---|---|---|---|---|---|---|---|---|---|
| | Approx Chi-Square | df | P Value | Sum of Squares | df | F | P Value | | |
| **AAQ-II** | 11.01 | 2 | 0.004 | 165.24 | 1.52 | 22.41 | 0.001 | 0.43 | 1.00 |
| **MAAS** | 10.67 | 2 | 0.005 | 316.21 | 1.53 | 22.41 | 0.001 | 0.43 | 1.00 |
| **LOSC** | 23.88 | 2 | 0.001 | 3825.74 | 1.28 | 54.55 | 0.001 | 0.65 | 1.00 |
| **SCS** | 10.53 | 2 | 0.005 | 1946.15 | 1.53 | 40.81 | 0.001 | 0.58 | 1.00 |
| **LSAS** | 7.08 | 2 | 0.03 | 1553.33 | 1.64 | 24.58 | 0.001 | 0.45 | 1.00 |
| | | | | **Sphericity Assumed** | | | | | |
| **WHOQOL** | 3.14 | 2 | 0.21 | 2413.32 | 1.81 | 29.88 | 0.001 | 0.50 | 1.00 |

**Table 4.** Difference Between Different Level of Assessment Depending on Group Membership

| Difference Between Two Sequential Level | Sum of Squares | df | F | P Value | Partial Eta Squared | Observed Power |
|---|---|---|---|---|---|---|
| **AAQ-II** | | | | | | |
| Pre-test vs. post-test | 269.88 | 1 | 27.96 | 0.001 | 0.48 | 0.99 |
| post-test vs. follow-up | 2.17 | 1 | 0.67 | 0.42 | 0.02 | 0.12 |
| **MAAS** | | | | | | |
| Pre-test vs. post-test | 516.02 | 1 | 25.65 | 0.001 | 0.46 | 0.99 |
| post-test vs. follow-up | 4.06 | 1 | 0.60 | 0.44 | 0.02 | 0.12 |
| **LOSC** | | | | | | |
| Pre-test vs. post-test | 6620.40 | 1 | 78.67 | 0.001 | 0.72 | 1.00 |
| post-test vs. follow-up | 165.76 | 1 | 8.60 | 0.006 | 0.22 | 0.81 |
| **SCS** | | | | | | |
| Pre-test vs. post-test | 3137.70 | 1 | 60.19 | 0.001 | 0.68 | 1.00 |
| post-test vs. follow-up | 17.79 | 1 | 0.77 | 0.39 | 0.02 | 0.13 |
| **LSAS** | | | | | | |
| Pre-test vs. post-test | 828.43 | 1 | 19.79 | 0.001 | 0.40 | 0.99 |
| post-test vs. follow-up | 726.02 | 1 | 12.89 | 0.001 | 0.30 | 0.93 |
| **WHOQOL** | | | | | | |
| Pre-test vs. post-test | 1899.51 | 1 | 28.71 | 0.001 | 0.49 | 0.99 |
| post-test vs. follow-up | 628.15 | 1 | 9.03 | 0.005 | 0.23 | 0.83 |

## Footnotes

**Authors' Contribution:** Komeil Zahedi Tajrishi designed the study based on the literature, collected the clinical data, performed therapy and drafted manuscript. Banafsheh Gharraee, Jafar Bolhari and Abbas Ramezani Farani supervised therapy method. Hojjatollah Farahani performed statistical analysis. Banafsheh Gharraee revised the manuscript for important intellectual content. All authors read and approved the final manuscript.

**Clinical Trial Registration:** IRCT Code: 20180607040000N1 (http://www.irct.ir).

**Declaration of Interest:** The authors declare that there was no conflict of interest regarding the publication of this paper.

**Funding/Support:** The project was founded by the Iran University of Medical Sciences, Tehran, Iran.

## References

1. Kessler RC, Chiu WT, Demler O, Merikangas KR, Walters EE. Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the national comorbidity survey replication. *Arch Gen Psychiatry*. 2005;**62**(6):617–27. doi: 10.1001/archpsyc.62.6.617. [PubMed: 15939839]. [PubMed Central: PMC2847357].
2. American Psychiatric Association (APA). *Diagnostic and statistical manual of mental disorders (DSM-5®)*. American Psychiatric Pub; 2013.

3. Morrison AS, Heimberg RG. Social anxiety and social anxiety disorder. *Annu Rev Clin Psychol*. 2013;**9**:249–74. doi: 10.1146/annurev-clinpsy-050212-185631. [PubMed: 23537485].
4. Heimberg RG, Brozovich FA, Rapee RM. A cognitive behavioral model of social anxiety disorder: Update and extension. *Social Anxiety*. 2nd ed. Elsevier; 2010. p. 395–422.
5. Hofmann SG, Smits JA. Cognitive-behavioral therapy for adult anxiety disorders: A meta-analysis of randomized placebo-controlled trials. *J Clin Psychiatry*. 2008;**69**(4):621–32. [PubMed: 18363421]. [PubMed Central: PMC2409267].
6. Tolin DF. Is cognitive-behavioral therapy more effective than other therapies? A meta-analytic review. *Clin Psychol Rev*. 2010;**30**(6):710–20. doi: 10.1016/j.cpr.2010.05.003. [PubMed: 20547435].
7. Hofmann SG, Bögels SM. Recent advances in the treatment of social phobia: Introduction to the special issue. *J Cognitive Psychother*. 2006;**20**(1):3–5. doi: 10.1891/jcop.20.1.3.
8. Marshall MB, Zuroff DC, McBride C, Bagby RM. Self-criticism predicts differential response to treatment for major depression. *J Clin Psychol*. 2008;**64**(3):231–44. doi: 10.1002/jclp.20438. [PubMed: 18302208].
9. Warren R, Smeets E, Neff K. Exploring the function of self-criticism in patient's lives. *Curr Psychiatr*. 2016;**15**(12):19–32.
10. Iancu I, Bodner E, Ben-Zion IZ. Self esteem, dependency, self-efficacy and self-criticism in social anxiety disorder. *Compr Psychiatry*. 2015;**58**:165–71. doi: 10.1016/j.comppsych.2014.11.018. [PubMed: 25556952].
11. Hayes SC, Villatte M, Levin M, Hildebrandt M. Open, aware, and active: Contextual approaches as an emerging trend in the behavioral and cognitive therapies. *Annu Rev Clin Psychol*. 2011;**7**:141–68. doi: 10.1146/annurev-clinpsy-032210-104449. [PubMed: 21219193].
12. Twohig MP, Woidneck MR, Crosby JM. Newer generations of CBT for anxiety disorders. In: Simos G, Hofmann SG, editors. *CBT for anxiety disorders: A practitioner book*. Wiley; 2013. p. 225–50.
13. Gilbert P. *Compassion focused therapy: Distinctive features*. Routledge; 2010.
14. Gilbert P. Social mentalities: Internal social conflict and the role of inner warmth and compassion in cognitive therapy. *Genes on the couch*. Routledge; 2014. p. 128–60.
15. Gilbert P. Introducing compassion-focused therapy. *Adv Psychiat Treat*. 2018;**15**(3):199–208. doi: 10.1192/apt.bp.107.005264.
16. Stott R. When head and heart do not agree: A theoretical and clinical analysis of rational-emotional dissociation (RED) in cognitive therapy. *J Cognitive Psychother*. 2007;**21**(1):37–50. doi: 10.1891/088983907780493313.
17. Gilbert P, McEwan K, Matos M, Rivis A. Fears of compassion: Development of three self-report measures. *Psychol Psychother*. 2011;**84**(3):239–55. doi: 10.1348/147608310X526511. [PubMed: 22903867].
18. Boersma K, Håkanson A, Salomonsson E, Johansson I. Compassion focused therapy to counteract shame, self-criticism and isolation. A replicated single case experimental study for individuals with social anxiety. *J Contemp Psychother*. 2014;**45**(2):89–98. doi: 10.1007/s10879-014-9286-8.
19. Gilbert P, Procter S. Compassionate mind training for people with high shame and self-criticism: Overview and pilot study of a group therapy approach. *Clin Psychol Psychother*. 2006;**13**(6):353–79. doi: 10.1002/cpp.507.
20. Ullrich S, Farrington DP, Coid JW. Dimensions of DSM-IV personality disorders and life-success. *J Pers Disord*. 2007;**21**(6):657–63. doi: 10.1521/pedi.2007.21.6.657. [PubMed: 18072866].
21. Grant JE, Steinberg MA, Kim SW, Rounsaville BJ, Potenza MN. Preliminary validity and reliability testing of a structured clinical interview for pathological gambling. *Psychiatry Res*. 2004;**128**(1):79–88. doi: 10.1016/j.psychres.2004.05.006. [PubMed: 15450917].
22. Amini H, Sharifi V, Asadi S, Mohammadi MR, Kaviani H, Semnani Y. [Validity of the Iranian version of the structured clinical interview for DSM-IV (SCID-I) in the diagnosis of psychiatric disorders]. *Payesh*. 2008;**7**(1):49–57. Persian.
23. Khoshouei MS. Psychometric properties of the Persian version of the liebowitz social anxiety scale (LSAS). *Iran J Psychiatry*. 2007;**2**(2):53–7.
24. World Health Organization. *WHOQOL-BREF: Introduction, administration, scoring and generic version of the assessment: Field trial version, December 1996*. Geneva: World Health Organization; 1996.
25. Nedjat S, Montazeri A, Holakouie Naieni KKM, Majdzadeh SR. [The World Health Organization quality of life, (WHOQOL, BREF) questionnaire: Translation and validation study of the Iranian version]. *Iran J Health Sch*. 2006;**4**:1–12. Persian.
26. Abasi E, Fata L, Molodi R, Zarabi H. [Psychometric properties of Persian version of acceptance and actionquestionnaire -II]. *J Psychol Model Meth*. 2012;**3**(10):65–80. Persian.
27. Azizi A, Mohammadkhani P, Lotfi S, Bahramkhani M. [The validity and reliability of the Iranian version of the self-compassion scale]. *Pract Clin Psychol*. 2013;**1**(3):149–55. Persian.
28. Abdi S, Ghabeli F, Abbasiasl Z, Shakernagad S. Mindful attention awareness scale (MAAS): Reliability and validity of Persian version. *J Appl Environ Biol Sci*. 2015;**4**:43–7.
29. Mousavi AS, Ghorbani N. [Self-knowledge, self-criticism, and psychological health]. *Psychol Stud*. 2006;**2**:75–91. Persian.
30. Au TM, Sauer-Zavala S, King MW, Petrocchi N, Barlow DH, Litz BT. Compassion-based therapy for trauma-related shame and posttraumatic stress: Initial evaluation using a multiple baseline design. *Behav Ther*. 2017;**48**(2):207–21. doi: 10.1016/j.beth.2016.11.012. [PubMed: 28270331].
31. Ehret AM, Joormann J, Berking M. Self-compassion is more effective than acceptance and reappraisal in decreasing depressed mood in currently and formerly depressed individuals. *J Affect Disord*. 2018;**226**:220–6. doi: 10.1016/j.jad.2017.10.006. [PubMed: 28992586].
32. Krieger T, Altenstein D, Baettig I, Doerig N, Holtforth MG. Self-compassion in depression: Associations with depressive symptoms, rumination, and avoidance in depressed outpatients. *Behav Ther*. 2013;**44**(3):501–13. doi: 10.1016/j.beth.2013.04.004. [PubMed: 23768676].
33. Bluett EJ, Homan KJ, Morrison KL, Levin ME, Twohig MP. Acceptance and commitment therapy for anxiety and OCD spectrum disorders: An empirical review. *J Anxiety Disord*. 2014;**28**(6):612–24. doi: 10.1016/j.janxdis.2014.06.008. [PubMed: 25041735].
34. Boettcher J, Carlbring P, Renneberg B, Berger T. Internet-based interventions for social anxiety disorder: An overview. *Verhaltenstherapie*. 2013;**23**(3):160–8. doi: 10.1159/000354747.
35. Herbert JD, Forman EM, Kaye JL, Gershkovich M, Goetter E, Yuen EK, et al. Randomized controlled trial of acceptance and commitment therapy versus traditional cognitive behavior therapy for social anxiety disorder: Symptomatic and behavioral outcomes. *J Contextual Behav Sci*. 2018;**9**:88–96. doi: 10.1016/j.jcbs.2018.07.008.
36. Schoenleber M, Gratz KL. Self-acceptance group therapy: A transdiagnostic, cognitive-behavioral treatment for shame. *Cognitive Behav Practi*. 2018;**25**(1):75–86. doi: 10.1016/j.cbpra.2017.05.002.
37. Thurston MD, Goldin P, Heimberg R, Gross JJ. Self-views in social anxiety disorder: The impact of CBT versus MBSR. *J Anxiety Disord*. 2017;**47**:83–90. doi: 10.1016/j.janxdis.2017.01.001. [PubMed: 28108059]. [PubMed Central: PMC5376221].
38. Neff KD. The science of self-compassion. In: Germer CK, Siegel RD, editors. *Wisdom and compassion in psychotherapy: Deepening mindfulness in clinical practice*. New York, NY: Guilford Publications; 2012. p. 79–92.
39. Barnard LK, Curry JF. Self-compassion: Conceptualizations, correlates, and interventions. *Rev General Psychol*. 2011;**15**(4):289–303. doi: 10.1037/a0025754.
40. Shapira LB, Mongrain M. The benefits of self-compassion and optimism exercises for individuals vulnerable to depression. *J Positive Psychol*. 2010;**5**(5):377–89. doi: 10.1080/17439760.2010.516763.
41. Neff K. Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self Identity*. 2003;**2**(2):85–101. doi: 10.1080/15298860309032.
42. Hayes S. *The roots of compassion*. Chicago: Keynote address presented at the fourth Acceptance and Commitment Therapy Summer Institute; 2008.