

# Comparing the Effectiveness of Acceptance and Commitment Group Therapy with Cognitive Behavioral Group Therapy on Reduction of Experiential Avoidance and Fear of Negative Evaluation in University Students with Social Anxiety

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## Abstract

**Introduction:** The purpose of the current study was to compare the effectiveness of acceptance and commitment group therapy with cognitive behavior group therapy on reduction of experiential avoidance and fear of negative evaluation in university students with social anxiety.

**Methods:** In this research, using two groups of experimental and one control group, an experimental interventional method was used. A sample of 45 students with social anxiety was selected by purposive sampling method and then randomly assigned to two experimental and one control groups. The experimental groups received 12 sessions of acceptance and commitment therapy and cognitive behavioral therapy, while no therapy administered on the control group. The experiential avoidance and fear of negative evaluation of the subjects were assessed using the AAQ-II and BFNE-II tests in two stages of the research. Final data were analyzed by Covariance analysis and Bonferronis post hoc test.

**Results:** Comparison of the groups did not show any significant difference in the experiential avoidance component between the three groups. In the fear of the negative component, the evaluation showed while both treatments reduced fear of the negative evaluation, acceptance and commitment therapy outperformed cognitive behavioral therapy.

**Conclusion:** Treatment based on acceptance and commitment therapy is effective in reducing the fear of negative evaluation of students, and it is recommended to be used in working with students with social anxiety.

**Keywords:** Acceptance and Commitment Group Therapy, Cognitive Behavior Group Therapy, Experiential Avoidance, Fear of Negative Evaluation

## Introduction

Social anxiety disorder is one of the most common chronic anxiety disorders, with a prevalence of 13% (1). It's the second most commonly diagnosed anxiety disorder, and one of the three common psychiatric disorders in the United States (2, 3). The main feature of this disorder is a significant fear or anxiety, which is tolerated or avoided by great difficulty, about one or more social situations in which it is possible for the patient being judged, negatively evaluated, or rejected (4).

This chronic disorder has a gradual and early onset in adolescence (5) and significantly impairs family social performance and personal economic performance (6). Only a small fraction of the affected ones get significant treatment (National Collaborating Centre for Mental Health (7). Some affected people may not go out of their home for weeks or lose their many social, occupational and educational opportunities, although these avoidance behaviors temporarily reduce anxiety but do not eliminate the disorder (8).

In the absence of therapeutic interventions, the disorder will lead to a long period of disability and the sufferer suffers a lot of problems in terms of personal, occupational and social performance (9). There is high comorbidity of this disorder with other anxiety disorders, depression and alcohol dependence, and a range of personality disorders, especially the avoidance personality disorder (10). Considering the high prevalence and early onset of this disorder, as well as its effect on the social and occupational functioning of the individual and its low spontaneous improvement or remission, it is very evident that a timely diagnosis and effective treatment is of necessity. On the other hand, its high comorbidity with other disorders, precedence over other disorders, and the high cost it imposes on health services, highlights the importance of finding a more effective treating approach. In addition to drug therapy, many psychological treatments have been identified as effective for social anxiety disorder, including cognitive behavioral therapy (11), interpersonal therapy (12), exposure therapy (13) social skills training, and cognitive behavioral therapy (14). Cognitive behavioral therapy (CBT), is well established as an effective treatment for anxiety disorders (15, 16). CBT model of treatment for social anxiety disorder has been widely studied and its effect on social anxiety disorder has been reported moderate in the recent meta-analysis (16). Blanco et al. (2010)(17) reported a lower response rate of CBT to social anxiety disorder compared to drug therapy and both treatments together. Moreover, despite experiencing considerable Success (18) in a recent research (3), it has been reported that CBT had important shortcomings, such as not all individuals responded to this treatment, the long-term treatment outcomes were not stable, and, trying to control thoughts that accompany the unpleasant excitement, often increases them. Barlow et al. (19) also reported that many recipients of CBT abandoned the treatment before it ends, and relapse following successful treatment, seeking additional

treatment usually happened. Crask et al. (3) acknowledged that despite the successful treatment of people with anxiety disorders, they remain vulnerable to developing anxiety and mood disorders across the lifespan. Furthermore, there is growing interest in behavioral approaches that do not rely on cognitive restructuring, which is a substantial component of CBT, such as behavioral activation treatment for depression (20). Therefore, researchers have advocated better matching of treatments to individuals as one approach towards improving therapy outcomes, which in turn has motivated the search for alternative treatment approaches. Earlier researchers turned to treatments that are based on awareness and acceptance (21). Among these treatments, acceptance and commitment therapy (ACT) has been reported to be efficacious treatment for many different disorders, including: social anxiety disorder (22) panic disorder (23) anxiety disorders (24), eating disorders (25) ,obsessive-compulsive disorder, skin disorder (26), and depression (27). ACT is a third wave therapy and is grounded in a philosophy of science known as functional contextualism, based on behavioral theory and research including relational frame theory, with this larger line of work often called contextual behavioral science (28). ACT initially developed as a transdiagnostic and process-focused treatment (21). In this treatment, it is assumed that human being considers many feelings, emotions, thoughts and inner events as unpleasant and intolerable and tries to change, control or eliminate these internal experiences. (29). But this attempt to control internal events is inefficient and exacerbate them (28). Although this approach recognizes the role of cognition in creating unpleasant emotions, but rather than focusing on cognitive restructuring as in CBT, ACT focuses on acceptance and tendency to experience internal events and on interactions based on values in life, and recognizes thoughts, only as an integral part of normal human experiences and, one of several possible contextual factors that can lead to

negative emotions (30, 31). ACT aims to eliminate experiential avoidance and increase psychological flexibility through contact with the present moment, committed action and values based living (32). Whereas several large randomized controlled trials have examined treatment differences of ACT and CBT in psychological factors, these studies have not focused on a social anxiety population and have largely ignored performance outcomes for this group (33). As far as the researcher has searched, few studies have been widely conducted in this regard, Arch *et al.* (34), which compared the effectiveness of ACT with CBT on an anxiety disorder, And Craske *et al.* (3), in which examination of the efficacy of ACT relative to CBT for social anxiety was studied and their second goal was to evaluate moderators of each treatment approach. Therefore, in the same direction and in order to improve, expand the conclusions about the effectiveness of each of these therapeutic approaches, to evaluate the claims of each of these two therapeutic approaches, namely, cognitive reconstruction and change in the content of thoughts, and ultimately controlling thoughts to reduce anxiety versus acceptance and openness to anxiety provoking tasks with the purpose of living on the basis of one's own values, warrants the investigation. Clearly, since entering the university is a critical period in the life of a person and it is often accompanied by a lot of changes in social relationships (35), it is importance of find a way to improve the social and academic performance of this social group.

## Methods

This research is experimental in which the pretest-posttest control group design was used. Independent variable in this study was treatment (acceptance and commitment therapy and cognitive behavioral therapy) and dependent variable was, changes in Acceptance and Action Questionnaire-II (36) and Brief Fear of Negative Evaluation-II Scale (37) scores as a result of the application

of two different treatment methods. The statistical population consisted of all undergraduate students of Islamic Azad University of Marvdasht and Shiraz, in 2016. The sampling was done in two stages: in the first stage, 470 students were selected by purposive method. Students who got high scores in SPIN (35-40 or higher) were identified and were clinically interviewed (according to the criteria of the Diagnostic Statistical Manual, Fifth Edition). The amount of social anxiety was measured by social anxiety inventory (SPIN), which is a self-assessment scale of 17 items and total scores can range from 0 to 68. SPIN was designed by Canner et al. in 2000 to assess social anxiety and it's very sensitive to reduction of the symptoms of social anxiety over time. One of its uses is to test the response to treatment in social anxiety disorder. It is a useful screening tool for distinguishing between people with and without social anxiety, scores above 51 are considered very severe social anxiety and scores between 41 to 50 moderate, 21 to 30 low and less than 20 normal, the cut point 40 with an accuracy of 80% can distinguish people with or without Social phobia (38). Results from the original validation study suggest that the SPIN possesses strong internal consistency, test- retest reliability, convergent validity, discriminative validity, construct validity, and sensitivity for measuring change following pharmacological treatment (39). The criteria for entry to the experimental group were: studying in university, not taking psychiatric drugs, not having other psychological and personality disorder, not participating simultaneously in other therapy programs and not receiving individual or personal counseling. Exclusion criteria were active suicidal ideation, severe depression, history of bipolar disorder or psychosis, substance abuse or dependence within the last 6 months. Upon identifying students with social anxiety disorder and receiving the final consent of the individuals to participate in the research, in the second stage of sampling, 45

students with social anxiety disorder were randomly assigned to three groups as follows: 15 in the experimental group ACT and 15 in the experimental group CBT and 15 were assigned into control group. All three groups were assessed prior to treatment (Pre), by Acceptance and Action Questionnaire-II and Brief Fear of Negative Evaluation-II Scale. Then one of the experimental groups received CBT based on Hoffman & Otto's practitioner's Guide (38), and the second experimental group received ACT based on the Eifert and Forsyth practitioner's Guide (23). For twelve weekly, 2-hour, group therapy sessions received treatment as shown in table 1 but the control group did not receive any intervention. At the end of treatment, the subjects in all groups completed the Acceptance and Action Questionnaire-II and Brief Fear of Negative Evaluation-II Scale again in the post-test stage and finally the obtained data was analyzed by covariance analysis method. It should be mentioned that the control group had already been informed about the necessity of receiving treatment, after post assessment, they were offered treatment free of charge, and were able to choose either CBT or ACT at the end of the research project. Moreover before starting the interventions a full disclosure of the nature of the research and the participant's involvement was described to the participants, and it was announced that all information will remain confidential. It was also noted that participants in the study were free to withdraw at any part of the experiment. All patients signed informed consents. To measure the avoidance of experience, Acceptance and Action Questionnaire-II, a ten-point scale, was used. In this questionnaire, the materials are graded on a scale of 7 grades from 1 to 7, and the high scores represent an exhaustive avoidance and higher rigidity and low scores indicating more action and more psychological flexibility. The score for this questionnaire is in the range of 10-70 (40). Regarding validity and reliability, it can be said that the internal consistency and reliability of the 4-month re-examination of

this questionnaire were reported to be 0.81 and 0.84 respectively (40). In the study of Gloucester *et al.* (41), the internal consistency of this tool was between 0.48 and 0.97 for the four samples and 0.44-0.85 for the test coefficient. The psychometric adequacy of the Persian version of this questionnaire was reviewed and approved by Abbasi *et al.* (42). Abbasi *et al.* reported a convergent validity of the questionnaire, correlated it with the second version of the Beck Depression Inventory and Beck Anxiety Inventory -0.59 and -0.44. and Brief Fear of Negative Evaluation-II Scale: The fear of negative evaluation was measured using Brief Fear of Negative Evaluation-II Scale of Larry's negative assessment (43), composed of 12 substances and cutting point 25 (44). The highest score that a person can receive in this questionnaire is 60 and the lowest 12, a higher score indicates a fear of negative evaluation and a lower score, and a score of 12 representing low fear of the negative evaluation of others in the individual. This questionnaire has a high correlation with its high profile with  $r = 0.96$ , and the internal consistency of this questionnaire was 0.96 and the reliability of the test after four weeks was  $r = 0.75$  (45). In Iran, in Shokri, Gravand, Rokht, Tarkhand and Autumn (45) researches, the psychometric properties of the short form of fear scales of negative evaluation of the validity of this questionnaire were empirically accepted and the internal consistency for positive scoring questions was 0.87 for questioning scores Negative results were 0.48 and 0.84 for the whole scale. Also, in the research of Gravand, Shokri, Goddess and Amani (47) on the standardization, validity and reliability of the scales of fear of negative evaluation, it was reported that this scale has a convergent validity, and the Cronbach's alpha coefficients and revision coefficients are valid for two weeks. Cronbach's alpha coefficients for total score, and subscales of scaled positive questions and negative scaled questions were respectively 0.80, 0.82, 0.81, and the two-weekly re-evaluation coefficients for the

overall score, and the sub-scales between 0.77 - 0.79.

## Results

Covariance analysis was used to analyze the data and compare the experimental and control groups. By confirming the assumptions of covariance analysis, the final analysis results are presented in Table 2. Covariance analysis was used to analyze the data and compare the experimental and control groups. By confirming the assumptions of covariance analysis, the final analysis results are presented in Table 2. As shown in Table 2, the value of F ( $F=1.592$   $P=0.22$ ) for the difference between the groups (control and experiment) is not significant at the significance level of  $\leq 0.001$ . This means that there is no significant difference (with pre-test factor control) between the AAQ-II scores of the experimental and control group at the significance level of  $\leq 0.001$ . Therefore, it is not confirmed that therapy sessions have been effective. As shown in Table 3, the value of F ( $F=13.287$   $P=0.001$ ) for the difference between the groups (control and experiment) is significant at the significance level of  $\leq 0.001$ . This means that there is significant difference (with pre-test factor control) between the BFNE-II scores of the experimental and control group at the significance level of  $\leq 0.001$ . Therefore, it is confirmed that therapy sessions have been effective. Another indicator to be considered is the effect size, which is indicated in the table as "ETA". The value of ETA squared is 0.462 at the significance level of  $\leq 0.001$ , which in percentage will be 46%, meaning that 46% of the changes in social anxiety scores are due to the implementation of the treatment. Subsequently, the difference between pairs of groups was investigated using post hoc test. The results of the follow-up test are presented in Table 4. The results of the post hoc test in Table 4 show that there is a significant difference between the control group and the CBT group, as well as between the control

group and the ACT group at a significant level of  $\leq 0.001$ , and both therapeutic methods have been effective ( $P=0.001$ ). While both treatments reduced fear of the negative evaluation, acceptance and commitment therapy outperformed cognitive-behavioral therapy ( $P=0.001$ ).

## Discussion

The aim of this study was to compare the effectiveness of cognitive behavioral group therapy and acceptance and commitment group therapy in reducing the experiential avoidance and fear of negative evaluation in university students with social anxiety. The results of the analysis of the experiential avoidance component showed that there was no significant difference between the three groups, in other words, the results of the analysis indicated that the interventions were not effective on experiential avoidance component. These results are inconsistent with the studies carried out by Pearson, Folet and Hayes (50), Wineland (51), Forman, Boether, Hoffman, Herbert (52) and Patterson (53), which compared the effects of ACT and CBT approaches on experiential avoidance component and showed that both approaches were effective. In explaining the findings, it can be noted that experiential avoidance is a component that has been broadly defined as attempts to avoid thoughts, feelings, memories, physical sensations, and other internal experiences. It is against acceptance, which means the person's willingness to accept thoughts, excitements and behavioral manifestations without attempting to avoid them. Experiential avoidance is known as a pathological factor for various types of mental disorders, especially social anxiety (54). The process of experiential avoidance is thought to be maintained through negative reinforcement; that is, short-term relief of discomfort is achieved through avoidance, thereby increasing the likelihood that the behavior will persist.

**Table 1.** Summary of treatment sessions

<b>Cognitive Behavioral Therapy for Social Anxiety Disorders Based on Hoffman &amp; Otto Guidelines (2008)</b>	
<b>Session 1:</b>	Establishing relationship and introducing a therapeutic model with special emphasis on exposure
<b>Session 2:</b>	Reviewing the homework of the previous session and the therapeutic model, practicing exposure in the session by asking the members to explain the therapeutic model and its logic, and at the end of the session assigning homework
<b>Session 3-6:</b>	Creating enough anxiety for each exposure exercise and at the end of the session assigning homework
<b>Session 7-11:</b>	Introducing exposures based on the fear hierarchy and asking each patient to anticipate the following: 1. Average and Maximum Anxiety During Exposure? 2. Consequence of the situation? 3. How long will these consequences take? And finally assigning homework
<b>Session 12:</b>	Summarize the progress of each group member with regard to the independent practice and the positive skills that each member has learned and discuss what parts and kinds of anxiety has been overcome and what remains.
<b>Acceptance and commitment therapy for anxiety disorders: a manual by Eifert and Forsyth (2005).</b>	
<b>Session 1:</b>	focused on psychoeducation, experiential exercises, and discussion of acceptance and valued action.
<b>Sessions 2-3:</b>	explored creative hopelessness, or whether previous efforts to control anxiety had worked and how such efforts had led to the reduction of valued life activities, and encouraged acceptance.
<b>Sessions 4 and 5:</b>	emphasized mindfulness, acceptance, and cognitive defusion, or the process of experiencing anxiety-related language (e.g., thoughts, self-talk, and so forth) as part of the broader, ongoing stream of present experience rather than getting stuck in responding to its literal meaning.
<b>Sessions 6-11:</b>	continued to hone acceptance, mindfulness, and defusion, and added values exploration and clarification with the goal of increasing willingness to pursue valued life activities. Behavioral exposures, including interoceptive, in vivo, and imaginal, were used to practice making room for, mindfully observing, and accepting anxiety and to practice engaging in valued activities while experiencing anxiety.
<b>Session 12:</b>	reviewed what worked and how to continue moving forward.

**Table 2.** Covariance analysis to determine the effectiveness of the ACT and CBT the experiential avoidance scores

Source	Sum of Squares	df	Mean Square	F	Sig	Eta Squared
Groups	14.75	2	7.37	1.59	0.22	0.09
AAQ-II_Pre	661.84	1	661.84	142.80	0.001	0.82
Groups * AAQ-II_Pre	10.70	2	5.35	1.15	0.32	0.06

**Table 3.** Covariance analysis to determine the effectiveness of the ACT and CBT the Brief Fear of Negative Evaluation-II Scale

Source	Type III Sum of Squares	Mean Square	F	Sig	Partial Squared	Eta
Group	131.90	65.95	13.28	0.001	0.46	
BFNES_Pre	969.51	969.51	195.31	0.001	0.86	
group * BFNES_Pre	11.56	5.78	1.25	0.301	0.07	

a. R Squared = .898 (Adjusted R Squared = .881)

**Table 4.** Bonferroni's post-hoc test to determine the effectiveness of the ACT and CBT in the Brief Fear of Negative Evaluation-II Scale

Group		Mean Difference	Std Error	Sig	95% Confidence Interval for Difference	
					Lower Bound	Upper Bound
Control	CBT	3.838*	0.90	0.001	1.99	5.68
	ACT	8.408*	0.91	0.001	6.54	10.27
CBT	Control	-3.838*	0.90	0.001	-5.68	-1.99
	ACT	4.569*	0.89	0.001	2.73	6.40
ACT	Control	-8.408*	0.91	0.001	-10.27	-6.54
	CBT	-4.569*	0.89	0.001	-6.40	-2.73

Thus in Individuals with social anxiety experiential avoidance interferes and causes problem in various areas of the person's life such as social communication (55). Experiential avoidance will continue to result in adverse outcomes such as academic failure, unpopularity among peers, and the continuation of saddening thoughts. It seems that the two approaches, ACT and CBT, have been ineffective in reducing the experiential avoidance due to inadequate training of members in each experimental group and compaction of the sessions. The results of analytical analysis on the fear of negative evaluation showed that there was a significant difference between the three groups; both therapy approaches ACT and CBT reduced the fear of negative evaluation. The results also showed that ACT was significantly more effective than CBT in reducing fear of negative evaluation of students. These findings

are consistent with the results of Habibollahi and Soltanizadeh (56), Forman *et al.* (52), Collins, Gonzales, Gaudiiller, Schresth and Gurud (57), Kosovsky, Fleigman and Pector (58), Kosovsky *et al.* (59) Dalrimelep and Herbert (60), Block and Wolfer (61). In explaining the result, it should be noted that people with social anxiety tend to process threatening information. In other words, people with social anxiety also have selective attention due to cognitive errors, and in social interactions, they tend to pay more attention to opinions of others; opinion that approve their cognitive errors. So, when they are at the risk of being judged by others, they focus their attention on their own observation and then focus on information that is consistent with their cognitive errors, and any information that is contrary to their beliefs is ignored. According to this concept, in cognitive-behavioral group therapy it was shown to the

members that how, the cognitive reconstruction and identifying negative automatic thoughts and errors (such as mind-reading, , emotional reasoning, exaggeration, etc.) can caused selective attention and, ultimately, negative emotions such as anxiety, fear, and shame that ultimately lead to social constraints (62) while in the ACT uses different philosophy' instead of controlling the thoughts and challenge the thoughts, and replace them with more adaptive thoughts, ACT encourages willingness to accept thoughts and, at the same time, being committed to behaviors that are consistence with the persons values of the life. Also, mindfulness as one of the components of ACT treatment helps to reduce the rumination of negative thoughts and negative self-assessment that leads to anxiety. Therefore ACT group achieved more psychological flexibility due to this process and consequently outperformed the CBT approach in reducing fear of negative evaluation.

### Conclusion

The aim of present study was to compare the effectiveness of cognitive behavioral group therapy and acceptance and commitment group therapy on Experiential Avoidance and Fear of Negative Evaluation in university student with Social Anxiety. The findings showed that the two therapeutic approaches were not effective in reducing the Experiential Avoidance in university students. While acceptance and commitment group therapy, outperformed the cognitive behavioral group therapy in reducing Fear of Negative Evaluation in university students, still further studies in this area is needed to come up with more clear result. An analogous study is recommended to be replicated with different population in order to find out whether the result obtained will be of any dereference.

### Ethical issues

Before starting the interventions a full disclosure of the nature of the research and the

Participans' involvement was described to them, and it was announced that all information will remain confidential. It was also noted that participants in the study were free to withdraw at any part of the experiment. All patients singed informed consents.

### Authors' contributions

All authors have equally contributed to the writing of the present manuscript and have approved the final manuscript.

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