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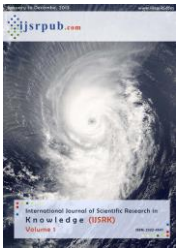

Full Length Research Paper

Effect of Acceptance and Commitment Therapy on Young People with Social Anxiety

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Abstract. Anxiety is among the most common psychological symptoms, which is also the cause of most cognitive-behavioral disorders. Social anxiety disorder is one of these disorders. In this type of disorder, individuals are unable to have effective social communication and their interpersonal communication is impaired. Given the high prevalence of social phobia in youth population and that this population is considered as an active population that is also the main factor for making the effort, growth, and development in any society, this study aimed to determine the effectiveness of acceptance and commitment therapy (ACT) in reducing the symptoms of social anxiety among the young people in Tehran. For this purpose, 16 individuals out of 18-28 year-old young adults, who referred to some of the selected clinics in Tehran, were selected using the convenience sampling method. Then they were randomly divided into experimental and control groups (8 individuals in each group). In this semi-experimental study with a pretest-posttest control group design, the 12-session ACT protocol was used for the subjects in the experimental group, while the subjects in the control group did not receive any intervention. The Social Phobia and Anxiety Inventory (SPAI) were used to measure the symptoms of social anxiety. After the data were collected, ANCOVA test was used for data analysis. The results indicate the effectiveness of ACT in reducing the symptoms of social anxiety among young people. Therefore, ACT can have a significant effect on social anxiety by increasing psychological flexibility.

Keywords: Acceptance and Commitment Therapy, Social Anxiety, Young people, Psychological Flexibility

1. INTRODUCTION

Anxiety disorders are among the most common psychological disorders that make people look for mental health services and treatment (Codd et al., 2011). Moreover, social anxiety disorder significantly impairs daily functioning (Caouette and Guyer, 2014).

Social anxiety is a type of anxiety disorder that appears with an intense and persistent fear of the situations in which blushing is possible. Moreover, with symptoms such as intense and persistent fear of avoidance and performance situations which cause immediate response, individuals realize that their fear is irrational. This will lead to individuals avoiding such situations or tolerating them in horror. Such anxiety will finally impair individuals' performance and social relations (Pourfaraj Omran, 2011).

Genetic and environmental factors, negative life experiences, cognitive factors such as interpretation bias and attention bias, negative mental images, and social skill deficits are among the effective factors in social anxiety disorder. Young people's experiencing anxiety can have negative effects both on their performance during their lives and on their mental health and social and occupational functioning in the future. Young people with social anxiety often consider social skills as a challenging task. Low self-esteem and fear of rejection, excessive concern for other's approval, and annoying memories of past social experiences are among the factors that make individuals avoid being among people, express their opinion, start a conversation, or unable to date someone and afraid of eating and drinking in public. These individuals might also encounter difficulties in asking for help and tolerating difficult situations.

Various studies report that the lifetime prevalence of this disorder is 3-13%. The 6-month prevalence of social phobia is about 2-3%. Epidemiological studies have shown that this disorder is more common in women than in men. In clinical samples, however, the reverse is often true. The reason for this difference in observations is unclear. Social phobia is most often observed during adolescence; however, its onset is also common at younger ages (even at 5) and older ages (even at 35). People with social phobia may also have a history of other disorders such as other anxiety disorders, mood disorders, substance-related disorders, and bulimia nervosa. Moreover, avoidance

personality disorder frequently occurs among those with generalized social phobia (Sadock and Sadock, 2007).

The most important conclusion drawn from the studies on social anxiety indicates the considerable importance of early diagnosis and treatment. This is due to the fact that cognitive, psychological and physical aspects of a disorder are reinforced over time and consequently it will be more difficult to overcome. However, people with such a disorder often try to treat themselves after encountering numerous problems in their lives and when it is too late. Given that this disorder is not known in many parts of the world and it is assumed to be due to diagnostic disorders, people with social phobia usually tend to self-medicate. Research has shown the effectiveness of two types of treatments for social anxiety: 1- drug treatment 2- short-term psychotherapy such as cognitive behavioral approaches whose main elements include gradual exposure to social situations (Pourfaraj Omran, 2011).

ACT is a third wave behavioral therapy approach that includes eclectic and metaphorical techniques, paradox, and mental focus skills in psychological interventions. Its theoretical framework is the cognitive-rational theory, and it includes the processes of acceptance, commitment, and behavior change by building psychological flexibility (Hayes, 2002).

Unlike other psychotherapy theories, ACT is not a semiotic approach. In this therapy, it is believed that a healthy mind and process of cognition make human thought and language tend towards avoiding experience (according to the third wave of behavioral therapy, the existing condition must be actively accepted). This experiential avoidance itself causes problems and suffering in humans. Moreover, this type of therapy is based on Rational Frame Theory (RFT) (Hayes et al., 1999).

This therapeutic relationship is formed through 6 main processes, including acceptance, cognitive defusion, self as context, contact with present moment, values, and committed action. These 6 main concepts will result in psychological flexibility (Hayes and Lillis, 2012; Hayes et al., 2006).

As noted earlier, the main goal of ACT is to build psychological flexibility, which means the ability to choose an appropriate and practical answer among the available options, not merely for the purpose of avoiding thoughts, feelings, memories or chaotic tendencies as an imposed option. In this therapy, individuals' psychological acceptance of mental experiences (thoughts, feelings etc.) is first increased, and ineffective control measures are reciprocally reduced. Patients are taught that taking any measure to avoid or control these unwanted mental experiences would be ineffective or has an opposite effect that can exacerbate them. They also learn that these experiences should be fully accepted without any internal or external response to eliminate them. In the next step, patients' present moment mental awareness is increased; that is, they become aware of their present psychological states, thoughts, and behaviors. In the next step, patients are taught to detach themselves from these mental experiences (cognitive defusion) so that they can act independently of such experiences. The forth step would focus on reducing excessive focus on conceptualized self or personal stories (such as being a victim) that the individuals create in their minds. The next step would center round helping individuals know their core personal values, clarify them, and turn them into specific behavioral goals. Finally, they will be motivated for committed actions; that is, focused on the specified goals and values along with accepting mental experiences. These mental experiences might be depressing and obsessive thoughts, trauma-related thoughts, phobias or social anxiety (Hayes et al., 1989).

Although human beings are social creatures who are, emotionally and materially speaking, always in need of social communication, which seems really essential nowadays, this kind of communication is not easily possible for everyone. Factors such as lack of self-confidence, other's evaluation, fear of rejection, and criticism make individuals feel anxious in social situations. If this anxiety becomes severe it can turn into a disorder called social anxiety or social phobia. Therefore, prevention of social anxiety and disability in doing daily activities can improve individual and community health (World Health Organization, 2000).

The aim of ATC intervention is to change the processes involved in the psychopathology of these disorders. This approach must be used to treat people with social anxiety. These people must be encouraged to actively encounter with frightening mental experiences along with behavioral change and creating goals and motivations for commitment to a more social lifestyle (Pourfaraj Omran, 2011). In fact, this type of treatment can both change individuals' difficult thoughts and feelings and the ways to cope with problems using specific techniques. The main advantage of this approach, compared to other psychotherapy approaches, is that it considers both motivational and cognitive aspects in order to increase the effectiveness and continuation of the treatment. Given that this treatment method is new, it seems necessary to study its effectiveness in psychological disorders. It can also dramatically change the psychotherapy of psychological disorders. Various studies on social anxiety disorder (Baruch et al., 2009; Block, 2002; Bond and Bunce, 2000; Carrascoso Lopez, 2000; Gaudiano, 2004; Hayes et al., 2004;

Hayes et al., 2006; Twohig et al., 2010; Zettle, 2003; Zettle and Hayes, 1986; Zettle and Rains, 1989) confirm the effectiveness of this therapeutic approach.

Given the importance of ACT therapeutic approach and since no individual study on social anxiety disorder has been conducted in Iran, this study aims to investigate the effectiveness of this therapeutic approach in social anxiety.

2. MATERIALS AND METHODS

This is a semi-experimental study with a pretest-posttest control group design. First, the Social Phobia and Anxiety Inventory (SPAI) were used for 18-28 year-old young adults who referred to several selected psychology centers in Tehran. Among this population, 16 individuals with social anxiety symptoms were selected and then randomly divided into experimental and control groups (8 individuals in each group). The members of the experimental group received ACT intervention; but the members of the control group did not receive any intervention. After completion of treatment, post-test was carried out on both groups.

2.1. Acceptance and Commitment Therapy Protocol

The treatment protocol included a 12-session ACT treatment, which was developed based on the acceptance and commitment group therapy for social anxiety disorder (Fleming and Kocovski, 2009). The developed protocol with a 5-question questionnaire using a 5-point Likert scale was given to 10 clinicians for data validation. The clinicians were then asked to express their opinions about these agendas. The questions were as follows: First question: suitability for a clinical problem. Second question: coordination with session times. Third question: coordination with culture. Fourth question: coordination with ACT concepts. Fifth question: efficiency. The statistical analysis of the questionnaires indicated the desirability of the statistics related to the reliability of assessors $\propto$=0/787, which shows the applicability of the developed protocol. Table 1 shows the mean and standard deviation of the answers to the questions by experts.

Table 1: Mean and standard deviation of the answers to the questions by experts

Questions	Mean	Standard Deviation	Number
First Q	4.7	0.48	10
Second Q	4.2	0.42	10
Third Q	4.2	0.42	10
Forth Q	4.9	0.32	10
Fifth Q	4.7	0.48	10

The main goals of this protocol's treatment sessions include introducing the idea of creative hopelessness and acceptance and commitment therapy to patients, making a connection between social anxiety symptoms and behavior, tendency towards social anxiety instead of controlling it, introducing the idea of defusion with social anxiety and the feelings resulting from it and assessing patients' ability in practicing this capability and providing practical solutions, drawing a distinction between the conceptualized and observed self, introducing the importance of personal values and tendency towards values and helping patients find living spaces and personal values, making a connection between goals, actions, and finally emphasizing that actions must be according to values, practicing the goals for behavioral activation and treatment commitments (Zettle, 2007). Table 2 shows a summary of the developed protocol for social anxiety disorder.

2.2. Statistical Population and Samples

The statistical population of this study included all 18-28 year-old males and females suffering from social anxiety symptoms and referring to counseling and psychological centers in Tehran in 2013. Based on the Cohen's table (effect size = 0.05, power = 0.75), the sample size was estimated as 8 individuals for each group.

2.3. Instruments

In this study, the Social Phobia and Anxiety Inventory (SPAI) were used. This inventory is empirically derived from combined answers of cognitive, physical, behavioral, and social phobia dimension. It also includes 45 questions and 2 general social phobia and agoraphobia subscales. Among the questions, 32 are about social phobia and the other 13 are used for assessing agoraphobia. The continuum of the answers is rated based on the following spectrum: "never, rarely, seldom, sometimes, often, very often, and always." Each answer is given 0-6 scores, respectively. Various studies have shown that this test is highly sensitive to treatment effects and is more efficient than the other tests designed for this disorder.

Table 2: ACT protocol for social anxiety disorder

Treatment Sessions	A Summary of Treatments in each Session
1st Session	Explaining the pattern of mindfulness (relaxation) in the first session and each treatment session. Ensuring the confidentiality of the subjects discussed with patients in the treatment room.
2nd Session	Introducing the concept of creative hopelessness: Have the patients ever undergone any treatment to overcome social anxiety disorder? Explain it if there was any.
3rd Session	Continuing the concept of creative hopelessness: Make the patients aware that it is due to controlling that the treatments performed so far have been ineffective (if any treatment has been performed)
4th and 5th Sessions	Explaining the issue of control, and that avoidance cannot solve the problem, but causes more problems. Explaining the Jelly Doughnut Metaphor – explaining the concept of living in the moment.
6th and 7th Sessions	Discussing willingness and consent to accepting social anxiety as alternative to avoiding from it.
8th Session	Getting familiar with the concept of self-as-context, meaning a kind of cognitive detachment for specific thinking about self to reach cognitive flexibility.
9th Session	Explaining the concept of cognitive defusion; that is, abandoning the idea that an individuals' thought can completely define and explain their experiences (detachment of thought from us and paying attention to it as merely a thought)
10th and 11th Sessions	Getting familiar with the concepts of values, goals, and clarification of values; that is, it is only through clarified values that patient's behaviors could be guided towards doing what is or are important in their lives.
12th Session	Finally, explaining the concept of psychological flexibility, which is the main goal of the treatment; that is, having different behavioral choices. This happens when individuals consciously accept their disturbing thoughts and behave according to their values. Creating more motivation for doing the exercises provided in each session, and emphasizing the increase of accuracy and attempt to keep behavioral commitments.

The reliability of this test is calculated using internal consistency (Cronbach's alpha) and test-retest methods (Safizadeh, 2007). Using Cronbach's alpha coefficient, the reliability was obtained as 0.99. Moreover, after 4 weeks, the correlation coefficient of test-retest for social phobia, agoraphobia, and social phobia minus agoraphobia subscales was 0.95, 0.90, and 0.97, respectively. Factor analysis was used to confirm the essential components of the inventory, and the inventory was divided into two main factors (social phobia and agoraphobia) and three subsidiary factors, which represents a kind of construct validity. Moreover, the correlation between the scores of the researcher-made test and the SPAI test were assessed as an indicator of criterion validity. Overall, the obtained reliability and validity coefficients for the SPAI were satisfactory. Therefore, this inventory is a convenient and reliable tool to identify social phobia and agoraphobia.

In a preliminary study on a sample of 30 subjects selected from the study population, the reliability of this tool was also assessed, and Cronbach's alpha coefficient for social anxiety subscale was obtained as 0.96. This finding indicates the applicability of this inventory on the young population with social anxiety symptoms.

3. RESULTS

The descriptive findings of the study indicated that 38% and 62% of the participants were female and male, respectively. The mean and standard deviation of the age of the experimental and control groups was 22.38 ± 1.55 and 23.5 ± 1.96, respectively. In terms of educational status, 56.3% of the participants had a high school diploma or less, 31.3% of them had an associate degree and a bachelor's degree, and 12.5% had a master's degree. Moreover, in terms of employment, 87.5% of the participants were unemployed, 6.3% had government jobs, and 6.3% were self-employed. Table 3 separately shows the mean and standard deviation of the participants' social anxiety in the experimental and control groups. The data in table 3 show that the participants' mean of

social anxiety in post-test for the experimental group was significantly reduced; however, it is observed that there is not much difference between the pre-test and post-test scores.

Table 3: Mean and standard deviation of the participant's social anxiety in the experimental and control groups

Groups	Condition	Mean	SD	Min.	Max.
Experimental	Pretest	134.62	40.44	74	204
	Posttest	57.87	22.04	30	93
Control	Pretest	148	52.01	61	215
	Posttest	149.5	51.74	79	218

Given that there were pre-test and post-test, analysis of covariance (ANCOVA) was used to test the hypothesis of the study and inhibit the effect of pre-test. Before performing the analysis of covariance, its assumptions were first examined. The data were examined in terms of a linear relationship between the dependent and covariate variables, homogeneity of regression slopes, and homogeneity of variances; and none of them were violated. Table 4 shows the results of the test of between-subject effects.

Table 4: The results of the test of between-subject effects

Sources	Mean of Squares	F	sig	Eta Squares
Pretest	45922.86	36.42	0.000	0.73
Group	26593.62	21.09	0.001	0.61
Error	1260.92			

According to the data in Table 4, given that the significance level of the independent variable is lower than 0.01, the main effect of therapeutic intervention on the participants' social anxiety scores is statistically significant ($F = 21.09$, $P < 0.001$). Moreover, a significant difference was observed in the participants' social anxiety scores after adjusting for the pre-test scores. The above-mentioned findings mean that ACT was effective in reducing the symptoms of social anxiety among young people. Moreover, eta-squared value of 0.61 indicates that there is a strong relationship between the dependent and independent variables. In other words, about 61% of the variance in social anxiety is explained through therapeutic intervention. This table also shows that there is a significant relationship between controlling the independent variable (groups) and pre-test and post-test ($P < 0.000$, eta-squared value = 0.73). In other words, the effectiveness of pre-test scores on post-test scores was about 75%.

4. DISCUSSION

This study aimed to investigate the effectiveness of ACT in reducing the symptoms of social anxiety among the young population in Tehran. The results of the analysis of covariance (ANCOVA) showed that 12 sessions of ACT could significantly reduce the symptoms of social anxiety among the participants in the experimental group.

Various studies inside and outside Iran that have investigated the relationship of ACT with different types of anxiety disorders in different populations are all indicative of the effectiveness of this therapeutic approach in reducing the symptoms of anxiety.

The results of a study on the effectiveness of ACT, identification of therapeutic mediators, and provision of solutions to optimize treatment methods for generalized anxiety disorder showed that ACT was effective in generalized anxiety disorder. This study also determined the role of acceptance and value-based life variables as therapeutic mediators (Mozhdehi et al., 2011). Another study also investigated the effectiveness of ACT in reducing math anxiety among the high school students in Isfahan. The results of this study also proved the effectiveness of ACT (Abedi et al., 2010).

In a study by Pourfaraj Omran (2011) on 24 students with social phobia disorder, ten 90-minute ACT sessions were held (group therapy) and the results showed that at the end of the treatment, the scores of social anxiety in the experimental group was significantly reduced compared with the control group. These results also showed that this reduction did not significantly change during one month follow-up.

Moreover, Block (2002) showed that using methods like ACT in which attention and awareness are considered as main components are effective in treating anxiety disorders. In another preliminary study in which ACT was used on 11 university students with social phobia individually, the results were indicative of the effectiveness of this therapy in reducing students' social phobia (Block and Wulfert, 2000).

In another study by Zettle (2003) on 24 university students with math anxiety, ACT and systematic desensitization methods were used for 6 weeks. The results showed a significant reduction in students' math anxiety.

In a separate study aiming at investigating the effectiveness of ACT on generalized anxiety disorder, Hayes et al. (2006) and Longmore and Worrell (2007) found that ACT was effective in treating this disorder.

Twohig et al. (2010), applied ACT and PRT on 34 patients with obsessive-compulsive disorder and then compared the results (18 patients with ACT and 16 patients with PRT). The results showed that ACT was more effective than PRT in post-test and follow-up so that more than 60% of the participants in ACT scored less than 12 in Yale-Brown test during the 3-month follow-up period. In this regard, another cases study on the effectiveness of ACT in obsessive-compulsive disorder has been conducted, which confirms the effectiveness of this therapy (Hayes, 1987).

Addressing the mechanism of action of ACT to know how it works and what its targets are can be helpful in explaining the findings of this study. In fact, ACT works through two parts: 1- correction of previous issues, including accepting experiences, cognitive defusion, detachment to the conceptualized self, and living in the moment). 2- Provision of solutions (treatment process), including specifying values, clarifying them, commitment to them, and finally reaching psychological flexibility.

ACT intervenes within 6 stages, different from previous therapies for social anxiety disorder. By making individuals choosing experiential acceptance instead of controlling, this type of therapy makes them accept their anxiety with satisfaction and willingness and no more avoid it. Moreover, ACT takes advantage of the concept of cognitive defusion, which means abandoning the idea that an individuals' thought can completely define and explain their experiences (detachment of thought from us and paying attention to it as merely a thought), that thoughts are relative and indefinite (whether our own thought about anxiety or those we become anxious when we encounter them and we are worried about their approval). Therefore, it can be concluded that the way others might think about us is not necessarily true.

Detachment to the conceptualized self means detachment to our attachments. In other words, it means a cognitive detachment for specific thinking about self to reach cognitive flexibility.

Living in the moment means that individuals live neither in the past nor in future because living in the past would cause depression and living in the future would also cause concern and anxiety. Living in the moment can increase individuals' concentration and purposiveness. Therefore, when an individual is going to experience a frightening situation such as giving a speech, instead of focusing on how to control his/her anxiety in that situation, he/she would try to be prepared for the speech, not merely for that situation in public. This way, the individual's concentration and quality of activity would increase.

Specifying values, clarifying them, and making behavioral commitments mean that it is only through determining values and clarifying them those patients' behaviors can be guided towards doing what is or are important in their lives. Therefore, if anxious people know how transcendent and sacred their values are and have behavioral commitment towards those value-based goals, being in public situations will not be frightening anymore. This is due to the fact that that situation is necessary for reaching their significant goals, and those goals are also in line with their transcendent values. Consequently, these people will not fear from or worried about other's negative evaluations and approval anymore.

Finally, psychological flexibility appears as the main goal of ACT. In social anxiety, psychological flexibility means having different behavioral choices in the presence of others while communicating with people without being worried about their negative evaluations or approval. This happens when individuals consciously accept their disturbing thoughts and anxiety symptoms and behave according to their values which are more important than anything else in their lives.

Studies also show that clinically, ACT is highly effective in psychological flexibility. In this regard, in a study on the effect of ACT in a group of patients with social phobia with an average age of 42, Asmundson and Hajistavropolous (2006) found that avoidance and anxiety symptoms were significantly reduced, and this reduction continued during the 3-month follow-up period.

Therefore, compared to other psychotherapy approaches, the main advantage of ACT for social anxiety disorder is that it considers both motivational and cognitive aspects in order to increase the effectiveness and continuation of the treatment more. It seems necessary to provide training programs in order to aware most of the people who suffer from social anxiety disorder, yet do not take it seriously or try to treat it. Moreover, it would be desirable if therapists could be prepared for effective interventions for this type of disorder through training new therapeutic approaches such as ACT.

5. CONCLUSION

Having taken everything into consideration, Cognitive behavioral approaches consist variety of treatments and methods supported empirically for different range of anxiety disorders including social anxiety. Nevertheless, a notable number of patients still are not completely satisfied with cognitive behavior treatments. Consequently, there has been constantly a

need for some interventions that can reduce social anxiety and experiential avoidance specifically for patients who may not respond to classic cognitive behavior therapy. This study was a preliminary investigation that substantiated the acceptability and initial efficacy of ACT for social anxiety. The results from this pilot study propose ACT as an effective intervention for social anxiety which is worth investigating in large-scale efficacy trials.

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