

Comparison of the effectiveness of acceptance and commitment treatment (ACT) and problem solving treatment (PST) on the quality of life of students suffered from social anxiety disorder (SAD)

Mahmoud Rajabi ¹, Fazlollah Mirdreikvand ^{2*}, Mohammad Ali Sehavandi ²

¹ Ph.D. student of psychology, Department of Psychology, Faculty of Humanities, Lorestan University, Iran, ² Associate professor, Department of Psychology, Faculty of Humanities, Lorestan University, Iran.

Correspondence: Fazlollah Mirdreikvand, Associate professor, Department of Psychology, Faculty of Humanities, Lorestan University, Iran. E_mail: mirfazlolah12@gmail.com

ABSTRACT

Background: The purpose of this study was to compare the effectiveness of Acceptance and Commitment-based Treatment (ACT) and Problem-Solving Treatment (PST) on the quality of life of students with a social anxiety disorder (SAD). **Materials and Methods:** The research method was semi-experimental with a pretest-posttest design with the control group. The statistical population of this study included all students of Arak University of Medical Sciences who were studying during the 2016-2017 academic year. The sample consisted of 3 groups of 15 participants who were selected in several stages. Data collection tool was quality of life questionnaire. A protocol-based treatment model (Hayes acceptance and commitment-based treatments and problem-solving treatment protocol based on 6 stages of D'zurilla and Goldfried pattern) were conducted on social anxiety students during 8 90-minutes sessions. After collecting data through this questionnaire, SPSS21 software was used to analyze the statistical data. **Findings:** There was a significant difference between the mean of the experimental and control group in quality of life. **Conclusion:** The results analysis showed that acceptance, commitment-treatment based and treatment of problem-solving are effective in increasing the quality of life of student suffered social anxiety disorder (SAD).

Keywords: Acceptance and commitment-based treatment (ACT), problem solving treatment (PST), quality of life, social anxiety disorder (SAD)

Introduction

Social anxiety is characterized by fear of being evaluated in different situations. The quality of life of people with social anxiety disorder is associated with some features such as poor social performance and interaction, weak social skills, worthlessness, high self-criticism due to negative social events and low scores on self-esteem index and biased perception in social performance.

Quality of life is currently a major concern for health

professionals and is well known and used as an indicator for measuring health status in health research. Regarding the importance of the concept of quality of life and its impact on students' performance, they should be psychologically and physically looking for a way to increase people's better understanding of life. Various methods have been used to improve the quality of life in various studies. Treatment that is used to improve the quality of life in a social anxiety disorder is treatment based on acceptance and commitment. Acceptance and commitment-based therapy is effective for anxiety disorders and a kind of treatment is suppressed by some different types of anxiety disorders.

Acceptance and commitment-based therapy that we call it ACT is a kind of behavior therapy

With third waves that cleanly accept this approach about changing the shape or concepts or efficiency of thoughts and senses or their abundance.

The ACT contains 6 central process which causes Psychological flexibility. These are:

Access this article online

Website: www.japer.in

E-ISSN: 2249-3379

How to cite this article: Mahmoud Rajabi, Fazlollah Mirdreikvand, Mohammad Ali Sehavandi. Comparison of the effectiveness of acceptance and commitment treatment (ACT) and problem solving treatment (PST) on the quality of life of students suffered from social anxiety disorder (SAD). J Adv Pharm Edu Res 2018;8(S2):154-158.

Source of Support: Nil, Conflict of Interest: None declared.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non Commercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Acceptance, fault, self as a background, relationship with the present, values and committed action ^[1]. Other treatments used for social anxiety disorder are problem-solving. Problem-solving is a cognitive process by which one would find a suitable solution to the problem (Atkinson, Translated by Barahani et al., 2004). Problem-solving training is a method by which an individual learns to use his cognitive skill set to deal with problematic interpersonal situations. In the process of problem-solving training, there are five stages that most theorists agree with, and these five steps include the following steps. 1- General orientation, 2- Definition and formulation of the problem, 3- Presentation of alternative solutions, 4- Decision making. In the problem-solving training strategy, there is a belief that under the influence of this education Expectation of self-efficacy and personal adequacy would be increased.

Among the studies that indicate the positive effect of the acceptance and commitment-based treatment and treatment of problem-solving on improving the quality of life; Mohammadi's et al. (2017) study can be mentioned ^[2]. These researchers in their research assessed the effectiveness of acceptance and commitment-based therapy on the quality of life of students at a military center. The results of this study indicate that acceptance and commitment therapy has not only improved the quality of life and acceptance and practice index immediately after intervention but also after one month of treatment, the process of improvement has been maintained.

Muto et al. (2011) have shown that acceptance and commitment-based therapy has been effective in improving the quality of life of depressed students living abroad.

Fayzi et al. (2016) addressed the problem-solving skills of nursing students and related factors ^[3]. The results of this research indicate that nursing students had a satisfactory level of problem-solving skills. Problem-solving skills are learnable; therefore, it is recommended that longitudinal studies be conducted to investigate the effects of academic education on the level of students' problem-solving skills.

Begoli (2014) in his research on the effect of acceptance and commitment therapy on reducing the severity of symptoms and improving the quality of life of patients with obsessive-compulsive disorder, indicated that the most effective treatments that help to improve anxiety disorders, is acceptance and commitment-based treatment.

Neland et al. (2016) conducted a study on the efficacy of PST problem solving for generalized anxiety disorder. The results showed a significant effect of problem-solving.

Method and Materials

In this research, we use semi-experimental process and the general research design is semi-experimental with pre-test and post-test and control group. Statistical society in this research includes all of the students in arak medicine Science University, who were studying during the academic year of 2016-2017. Inclusion criteria include: completing the informed consent

form for participation in group training sessions according to the proposed timetable and lack of medical history associated with social anxiety, also exclusion criteria were substance abuse and psychotic disorders. All participants responded to the World Health Organization's Quality of Life questionnaire through two stages of pre-test and post-test. The experimental group also participated in 8 sessions of Hayes's acceptance and commitment-based treatment sessions and problem-solving based on 6 stages of D'zurilla and Goldfried pattern. The quality of life questionnaire is consisted of 26 questions and 4 sub-scales and determines the quality of life in four areas related to health: a) physical health, b) mental health, c) social relations, d) living environment. The first question is related to the quality of life and the second question asks about the health status. The next 24 questions address the quality of life in the four mentioned domains. The scoring of this scale is based on the five-point Likert scale and the score of each of the options is in a range of 1 to 5, for the three items 3.4 and 26 the researcher used reverse coding approach. Initially, a raw score is obtained for each subscale, which must be converted to a standard score between 0 and 100 by means of a formula.

Acceptance and Commitment-based Treatment Protocol

In the present study, Hayes acceptance and commitment-based therapy protocol and Problem Solving Treatment Protocol based on 6 stages of D'zurilla and Goldfried patterns were used on social anxiety students in 8 90-minutes sessions.

Sessions	Hayes acceptance and commitment-based therapy session details
First session	Greeting, familiarizing and introducing the group members to the therapist and with each other; General presentation of the teaching materials about commitment and acceptance-based therapy and its results; implementation of the pre-test
Second session	Explaining and expressing why the need for psychological intervention is felt? Creating hope and waiting for treatment in reducing these pressures; expressing the principle of accepting and recognizing emotions and thoughts about problems; awareness in this field that thought should be accepted as thoughts; emotions as emotions and memories only as memories; providing the task in the field of self-acceptance and emotions caused by disease
Third session	Examining the tasks of the previous session; talking about the feelings and thoughts of the members of the group; teaching the members that without judging their good or bad thoughts and feelings, accept them; training and recognizing emotions and their differences with thoughts and feelings. Providing the task in line with this question that how much do we accept of ourselves and our emotions and others and their emotions?
Fourth session	Checking the tasks. Providing the techniques about mindfulness and concentration on breathing, presenting the technique of presence at the moment and stopping thought. Re-emphasis on the principle of acceptance in the recognition of emotion and thought, emphasizing on reorganization about emotions and thoughts with different look, Tasks: Look at the annoying events of life in another way

Fifth session	Checking the tasks; teaching and learning about the difference between admission and submission; and awareness about accepting what we cannot change; knowing the subject of judgment and encouraging members to not judge their emotions; presenting this technique with conscious mind at any moment, they will be aware of their emotions, they will only see them, but they should not judge them; the presentation of the home-based task of mind-consciousness with admission without judgment
Sixth session	Provide feedback and short survey of the educational process; requesting the members of the group to express their feelings and emotions regarding the tasks of the previous meeting; Training and presenting the principle of commitment and its necessity in the process of education and treatment; (teaching commitment to practice, i.e., after the selection a worthwhile path in order to achieve peace or acceptance of any event in life, to do it and commit ourselves to do it); Presenting the technique of selective attention for more relaxation in the influx of negative automatic thoughts; practiced mindfulness and body scan
Seventh session	Provide feedback and search for unresolved issues in the members of the group; Identify behavioral plans for accepted affairs and is committed to acting on them; Creating the ability to choose between different options, so that they are appropriate, not more practical
Eighth session	Summarizing the contents; obtaining a commitment from the members for the completion of the duties after the end of the course; providing feedback to the members of the group; appreciation of their attendance at the meetings; implementation of the post-test

Problem-solving sessions

Sessions	Problem-solving therapy protocol session description
First session	Stage 1: Overall orientation, ability to recognize the problem, acceptance of the problem as a potential changeable phenomenon, belief in the effectiveness of the problem-solving framework in dealing with the problem of high self-efficacy expectations in order to implement the stages of the habit model to stop, think and then act to solve a problem.
Second session	Stage 2: Defining and formulating the problem, compiling all available information, separating the facts from the assumptions that require research, decomposing the problem, identifying the real goals
Third session	Stage 3: Generating alternative solutions, determine the range of probable solutions, and choose the most effective response from the answers.
Fourth session	Stage 4: Decision making, anticipating the possible consequences of each action, and paying attention to the benefits of these consequences.
Fifth session	Stage 5: Implementation of solutions, the implementation of the method chosen
Sixth session	Stage 6: Review, view the results of the implementation and evaluation.

Findings

The results of the research are presented in the following tables. Table 1: Analyzing the data obtained from life qualities at the level of descriptive statistics.

Table 1: The descriptive statistics table of the acceptance-based therapy control and experimental groups

level	Stage	Count	average	The standard deviation	Significant level
-------	-------	-------	---------	------------------------	-------------------

Quality of Life	Test	post test	15	832000	10.61131	0.429
		pre test	15	79.7333	9.52040	0.331
	Control	post test	15	68.4667	5.91447	0.992
		pre test	15	682000	6.74192	0.924

Table 2: Descriptive Statistics for control and experimental group t in problem-solving treatment

Quality of Life	level	Stage	Count	average	The standard deviation	Significant level
			Test	post test	15	83.8667
		pre test	15	79.7333	9.52040	0.331
	Control	post test	15	68.4667	5.91447	0.992
	pre test	15	682000	6.47192	0.924	

Table 3: the results of covariance analyzing in line with acceptance and commitment-based therapy on quality of life

Life quality	variables		Square average	df	F	Sig. level
	Between groups	3581.867	162.812	6	10.041	0.002
	Within group	113.500	16.214	8		
All	3695.367			14		

As can be seen in table 3 the significant level is less than 0.05; in general, it can be said that the independent variable affects the dependent variable. Between tests groups and control groups from the view of life quality variable in the level of 0.05, there is important deference so that we could say that the null hypothesis of the theory is confirmed.

Table 4: The results of paired t-test for intergroup differences of quality of life based on acceptance and commitment therapy

Group	Measurement steps	Average	Standard deviation	Df	T	Meaningful level
Control	pre test	68.2000	6.47192	14	-0.845	0.413
	Post-test	68.4667	5.91447			
Test	pre test	79.7333	9.52040	14	-9.751	0.000
	post test	838667	956830			

As shown in Table 4, the mean and standard deviations of quality of life variables were calculated in both control and experimental groups, which indicated that quality of life in control group is in the significant level (p = 0.413) and the mean of quality of life in the post-test of experimental group is higher than pre-test and even post-test of control group. In the posttest, the experimental group has the highest mean.

Table 5: Results of covariance analysis of problem-solving on quality of life

Quality of life	Variable	Squares summation	Squares average	Freedom level	F	Meaningful level
	Between groups	3415.283	189.738	6	7.452	00.1
	Intra group	280.083	25.462	8		
	Total	3695.367		14		

As shown in Table 5, a significant value is less than 0.05. In general, it can be said that the independent variable is affected by the dependent variable and there is a significant difference between the test and control groups in terms of the post-test of the quality of life variable at the level of 0.05. Therefore, it can be stated that the null hypothesis is confirmed.

Table 6: The results of paired t-test for intergroup differences of quality of life variable in the treatment of problem-solving

Group	Measurement steps	Average	Standard deviation	Df	t
Control	pre test	682000	6.47192	14	845 0413
	post test	68.4667	5.91447		
Test	pre-test	79.7333	9.52040	14	9.751 000
	pre-test	83.8667	9.56830		

As shown in Table 6, the mean and standard deviations of quality of life variable were calculated in both control and experimental groups, which shows that the level of quality of life in the control group was not significant ($p = .413$) and the mean level of quality of life after in the post-test of experimental group is more than pre-test and even post-test of the control group and the quality of life in the post-test of experimental group has the highest mean between all.

Table 7: Results of the test of variance analysis of the equality of the average effect of therapeutic methods on quality of life

	Total squares	Df	Average squares	F	Sig. level
Between groups	16.422	2	8.211	0.5	0.952
intra groups	14370.467	42	165.178	0	
total	14386.889	44			

As shown in Table 7, the inferential test results in line with the impact of therapeutic show the methods about the quality of life, given that the F value obtained is less than the test value and the significance level calculated for this test is equal to 0.952 and more than 0.07; therefore, the null hypothesis is rejected and as a result, the assumption of the mean equivalence of the two methods is confirmed with a confidence level of 95%. In other words, there is no significant difference between the mean of two methods of treatment.

Findings

The purpose of this study was to compare the efficacy of acceptance and commitment-based therapy (ACT) and problem-solving therapy (PST) on the quality of life of students with a social anxiety disorder (SAD). The research method was semi-experimental with a pretest-posttest design with the control group. The statistical population of this study included all students of Arak University of Medical Sciences who studied in the academic year 2016-2017. The inclusion criteria of this research include: completing the informed consent form for participation in group training sessions according to the proposed timetable and lack of medical history associated with social anxiety and exclusion criteria include substance abuse

and psychotic disorders. All participants, during two stages of pre-test and post-test, completed a quality of life questionnaire (short form with 26 items) and the experimental group received 8 sessions in the treatment sessions based on Hayes's acceptance and commitment-based therapy and problem-solving treatment based on 6 stages of the D'zurilla and Goldfried model.

The analyzing of the results showed that the commitment and acceptance-based therapy and problem-solving therapy affect increasing the life quality of the social disorder (SAD). The results of this study are consistent with the findings of the research of Marmarchi Nia and Zoogi Paydar (2016), Asgari et al (2015), Mohammadi et al (2016), Moto et al. (2011) and Feizi et al. (2016) [2-5].

Conclusion

Problem-solving is a basic skill for living in the present age. It is a kind of goal-oriented thinking, mental process, logical and systematic thinking that helps the person to search for solutions and then choose the best solution when confronted with problems. Studies show that problem-solving skills training play an important role in cognitive, emotional and skillful puberty and increasing student decision-making power and also in reducing anxiety. The goal of the acceptance and commitment-based therapy is to increase the full acceptance of a wide range of objective experiences that include emotional distress, thoughts, beliefs, feelings, and physical sensations and ultimately leads people to improve their quality of life. In fact, the approach to acceptance and commitment to health is focused on accepting and then modifying and modifying the relationship between one's own thoughts. In analyzing this finding, admission, based on acceptance and commitment, should allow the authorities to feel unpleasant internal experiences without trying to control them, and doing so will make the experiences, and its impact on individual combat will be reduced.

The results of this study showed that treatment based on acceptance, commitment, and treatment of problem-solving is effective in increasing the quality of life of students with a social anxiety disorder (SAD) and is suitable for use in health centers. Therefore, counselors and therapists can use meta-cognitive therapy to improve their quality of life. By helping clients to increase the use of these methods, one can hope that people can improve their quality of life.

Acknowledgments

In the end, all the officials and students of Arak University of Medical Sciences, who supported the author in this research, are sincerely thanked and appreciated.

References

1. Mahmood Allylu, Majid, Hashemi Nosrat Abad, Touraj, Sohrabi, Faezeh, (2016), The Effectiveness of Combined Intervention of Acceptance and Commitment Therapy (ACT) with Conflict Techniques on the Severity of Symptoms and Dimensions of Anxiety Sensitivity in Patients with Generalized Anxiety Disorder (GAD), *Journal of Psychology Clinical*, Eighth, No. 3.
2. Mohammadi, Reza, Duran, Behnaz, Rabiei, Mehdi, Salimi, Seyyed Hossein, (2017), The Effectiveness of Adequate Treatment and Commitment on Quality of Life of Students in a Military Center, *Journal of Medical-Scientific Research*.
3. Feizi, Conjini, Lili, Fadakarsogeh, Reyhaneh, Chaharзад, Minoо, Kazemnejad, Lili Ehsan, (2016), Nursing Students Problem Solving Skills and Related Factors, *Nursing and Midwifery Journal of Nursing*, Volume 25, Issue 81
4. Marmarchinia, Mojgan, Zoghi Paidar, Mohammad Reza, (2016), The Effectiveness of Acceptance and Commitment Therapy on Hope and Happiness of Girls Under Cover of Welfare Organization, *Journal of Applied Psychology*.
5. Asgari, Zahra., Bayazi, Mohammad Hossein, and Teymoori, Saeed. (2015). The Effect of Acceptance and Commitment-based Therapy on Improving Quality of Life in People with Nasal Syndrome. *Scientific Congress of Research and Development of Sociology and Psychology, Sociology and Social Sciences of Iran*.