Original Article

The effectiveness of dialectical behavioral therapy on increasing academic self-esteem and reducing test anxiety among students

Reyhaneh FarhadPour[1] and Seyyed Mahmoud Tabatabaei[*2]

1. Department of Psychology, Tabriz Branch, Islamic Azad University, Tabriz, Iran
2. Associate Professor of Cognitive Neuroscience, Department of Physiology, Tabriz Branch, Islamic Azad University, Tabriz, Iran

Abstract

The purpose of the present study was to investigate the effectiveness of dialectical behavioral therapy on increasing academic self-esteem and decreasing the test anxiety among female school students in Tabriz. Test anxiety threatens students' mental health and impacts their efficiency, flourishing, personality development and social identity. Using one-step randomized cluster sampling, one of the schools was selected and Cooper self-esteem questionnaire and Smith's test anxiety scale were performed and 24 students were randomly selected who had the highest score in the anxiety test and the lowest score in self-esteem questionnaire. Eleven students were put in the experimental group and ten others in the control group. The experimental group was subjected to dialectical behavioral therapy for eight sessions. The data were analyzed using covariance and multivariate covariance. The results showed that group behavior therapy was effective in increasing academic self-esteem but in reducing the test anxiety and its components did not have a significant effect on students. The result of group therapy including dialectical behavioral therapy can increase self-esteem and reduce test anxiety.

Introduction

One of the most extensive fields of research in psychology in recent decades has been anxiety and the related fields. Various studies, including Larson, Yoder, Johnson, Ramahi, Sung, and Washburn (2010) emphasizing the importance of anxiety in contemporary life, have called the present century the age of anxiety. But it is certain that anxiety does not know the age and time and has always been with man. One of the most important anxieties is exam anxiety. Exam anxiety is a special type of anxiety that is associated with physical, cognitive and behavioral symptoms, which are identified when preparing for the exam and taking tests, and becomes an issue when the high level of this anxiety with preparing for the exam and performing the test come in (Latas, Pantić, & Obradović, 2010; Hosseinzadeh Firouzabad, Bassak Nejad, & Davoudi, 2018).

Usually, everyone experiences some anxiety or stress before an exam or other important life event. A little worry in practice can help raise a person's level of motivation, but too much worry can be problematic, especially if it has a negative effect on a person's ability to prepare and perform in the exam. Degrees of test anxiety are seen in student children and adolescents. Anxiety tests threaten students' mental health and adversely affect their efficiency, the development of their personality development skills, and their social identity (Krispenz, Gort, Schültke & Dickhäuser, 2019). Degrees of anxiety and stress can be positive and give the person a sense of excitement and opportunity.

The student becomes agitated and anxious during the exam, which increases his focus on study and causes him to organize his program more regularly. Eventually, this anxiety leads to increased performance. But when stress and anxiety become negative, the person feels out of control and under pressure and loses focus. This type of anxiety leads to negative cognitive assessment, lack of concentration, undesirable physiological reactions, and decreased performance (Kazemian Moghaddam &

Mehrabi Zadeh, 1389).

On the other hand, self-esteem for psychologists is the most important issue in terms of personal, social and psychological aspects. One of the most common scales to assess self-esteem is the Cooper-Smith Self-Esteem Questionnaire. Most of the materials included in the scale are the regulated materials of the Rogers and Diamond scale (Rogers & Dymond, 1954).

The self-esteem scale has been provided in order to measure self-feedback in social, family, personal and educational-occupational domains (Coopersmith, 1967). The term self-esteem refers to the judgments that individuals make about themselves, regardless of their circumstances, and in this sense, indicates a person's degree of confidence in his or her capacity for success and in his or her social and personal value. Ordinary life (social, educational and professional life) are their translators (Fathi Ashtiani, 1397).

Therefore, lack of self-esteem leads to severe self-criticism, which has consequences such as anxiety, depression, mistrust, emptiness and futility. Such a person suffers from many problems and fails due to lack of self-confidence. Because the goal of treatment for anxiety is complete recovery, many sufferers fail to achieve or maintain asymptomatic status, and the persistence of symptoms in this disorder is common, even in people who show relative improvement. These residual symptoms are a strong predictor of recurrence. These results indicate the lack of current therapeutic interventions and the need for more effective treatments for this disorder (Yeh, Lee, Sung & Tung, (2014). Dialectical behavior therapy is in fact a modification of cognitive behavioral therapy. The results of studies show the effectiveness of this treatment model on anxiety disorders and depression (Alavi, 2012). In view of the above, dialectical behavior therapy is a new therapy that has been considered and used in prestigious scientific centers around the world for emergencies and interventions in crises and the treatment of disturbed patients and complex disorders. Therefore, the main purpose of this study is whether dialectical behavior therapy is effective in increasing academic-professional self-esteem and reducing test anxiety of students in Tabriz school centers?

Method

Participants

The present research method was quasi-experimental with pre-test and post-test and a control group. The population of the study was all female students of schools in Tabriz in 1397. Using one-stage cluster random sampling method, one of the girls' school centers was selected and self-esteem and test anxiety questionnaires were administered to them. Among the students who had the lowest score in the self-esteem questionnaire (educational-occupational dimension) and the highest score in the test anxiety questionnaire, 24 people were selected and 12 people were randomly placed in the control group and 12 people in the experimental group. Due to the non-participation of one of the subjects in the experimental group and two in the control group in the post-test, 11 in the experimental group and 10 in the control group entered the study.

For the experimental group, eight sessions of 45 minutes, dialectical behavioral therapy intervention was presented, while the control group did not receive any intervention. After eight sessions, Cooper-Smith self-esteem and Friedman test anxiety questionnaires were completed and data were obtained. These data were analyzed using SPSS program version 21 and statistical tests of covariance (ANCOVA) and multivariate covariance (MANCOVA).

Summary of dialectical behavioral therapy intervention training sessions:

Session 1: Familiarity of group members with each other and the therapist and also creating a good relationship between members and therapist

Session 2: Introduction to dialectical behavior therapy

Session 3: Teaching the method of relaxation and attention awareness (full focus on the present, identifying thoughts and emotions and the ability to pass or focus on them, focusing moment by moment awareness).

Session 4: Ready to breathe and relax, through the five senses and accompany it with test environments

Session 5: Applying the practical and judgmental skills of mindfulness (applying the wise mind, recording negative judgments and the initiating mind, doing effective work and teaching an appropriate mindfulness attention).

Session 6: Teaching the skills of attention, awareness and using the password on your feelings, thoughts and behaviors, to get rid of annoying thoughts, fundamental acceptance, and wise mind. Do effective work

Session 7: Teaching holistic, planning and action skills.

Session 8: Summarizing the three skills of dialectical behavior therapy method and reviewing the previous sessions.

Instrument

Cooper Smith Self-Esteem Questionnaire

This questionnaire consists of 58 items that describe the feelings, ideas or reactions of the person and the subject should use these materials by marking in two boxes ("looks like me (yes)") or "does not look like me" (No.) Answer. The materials of each of the subscales are: general scale of 26 items, social scale of 8 items, family scale of 8 items, educational-job scale of 8 items and false scale of 8 items, scores of the subscales as well as general score, possibility to specify Provides a context in which individuals have a positive self-image (Cooper Smith, 1967). The expressions for each subscale of the false scale score are not counted in the total scores. The maximum score on the general scale is 26 and in each of the other three scales is equal to 8. The maximum total self-esteem score is 50. In Fathi Ashtiani's research, the

mean and standard deviation of this questionnaire for high school students were 34.76 and 8.47, respectively (Fathi Ashtiani, 2010). It is noteworthy that in this study, the academic-occupational self-esteem dimension was examined. Admonson et al. (2006) estimated the reliability coefficient of the self-esteem questionnaire from 0.89 to 0.902 and in Iran Naibifard (2003) estimated the reliability coefficient as 0.78 (Fathi Ashtiani, 1397).

Friedman Exam Anxiety Questionnaire

This questionnaire has 23 questions and its purpose is to assess different dimensions of test anxiety (social humiliation, cognitive error, stress). To get points for each dimension, the points of the questions related to that dimension are added together. To get the total score of the questionnaire, the sum of the scores of all the questions are added together. High scores indicate low test anxiety and vice versa. Cronbach's alpha for Friedman test anxiety questionnaire in the dimension of social humiliation was calculated to be 0.90, for cognitive error was 0.85 and for stress was 0.83 (Fathi Ashtiani, 1397).

Results

When a body of quantitative information is collected for interpretation, it is first necessary to organize and summarize it in a way that is clearly understandable and transferable, for which, using descriptive statistical methods, the characteristics of a He stated the category of information accurately (Delavar, 2003).

Results of analysis of covariance one way to evaluate the effectiveness of dialectical therapy behavior on increasing students' academic-professional self-esteem after increasing pre-education shows in Table 1.

Table 1. Results of Analysis of Covariance One way to Evaluate the Effectiveness of Dialectical Therapy Behavior on Increasing Students' Academic-Professional Self-esteem after Increasing Pre-education

Sources	Sum of Squares	Df	Mean Squares	F	Sig.
Pre-training	3.818	1	3.818	1.656	0.214
The main effect of the groups	10.434	1	10.434	4.527	0.047
Error	41.492	18	2.305		

Considering the results obtained from Table 1, F=4.527 and *p*=0.047, considering that the obtained p is less than 0.05 alpha, the null hypothesis is rejected and the research hypothesis is confirmed. Therefore, it can be concluded with 95% confidence that dialectical behavior therapy is effective in increasing the academic-professional self-esteem of students in Tabriz school centers. Multivariate analysis of variance was used to investigate the fact that dialectical behavior therapy is effective in reducing test anxiety and its components (social humiliation, cognitive error, stress) of students in Tabriz school centers. The findings in Table 2 show multivariate analysis of covariance on test anxiety scores and its components in experimental and control groups.

Table 2. Results of Multivariate Analysis of Variance of Experimental and Control Groups in the Post-test Stage of Test Anxiety and Its Components

The name of Test	Value	F	df	Sig.
Wilks' lambda	0.477	1.421	4	0.283

Based on these findings, dialectical behavior therapy did not have a significant effect on test anxiety and its components (social humiliation, cognitive error, and stress) in the experimental group.

Table 3. Results of Multivariate Analysis of Covariance to Compare Experimental and Control Groups in Test Anxiety and Its Components

Source	Sum of squares	Df	Mean squares	F	Sig.
Exam stress	50.721	1	50.721	2.202	0.159
Social humiliation	4.683	1	4.683	0.342	0.567
Cognitive error	0.178	1	0.178	0.017	0.897
Tension	31.519	1	31.519	1.561	0.231

Considering the results obtained in Table 3, for the component of test anxiety F=2.202, social humiliation F=0.342 and cognitive error F=0.017 and stress F=1.561 all at the level of P>0.05. They are not significant. Hypothesis zero is confirmed and research hypothesis is rejected. Therefore, it can be acknowledged that dialectical behavior therapy has not had a significant effect on reducing test anxiety and its components (social humiliation, cognitive error, and stress) in students of Tabriz school centers.

Discussion

According to the life perspective approach, growth is considered as a dynamic system and a complex network forms its biological, psychological and social effects. In order to solve the problems faced in the person, according to their different origins, when presenting intervention methods, a multidimensional perspective is needed, but it is better to deal with issues such as test anxiety and proper orientation towards goals, and also to promote self-esteem to enter. Different layers of the problem need to be applied in each of the mentioned dimensions. Given the two sources discussed in theories for test anxiety, which have sometimes been attributed to a lack of necessary skills, some have attributed it to a low sense of competence. Due to the fact that low self-esteem and test anxiety are also effective psychological factors, so dialectical behavior therapy is one of the third wave therapies that its effect on female high school students was studied (Yaghoobi, Mohagheghi, Yousef Zade, Ganji, & Olfatii, 2014). The results of univariate analysis of covariance on the fact that dialectical behavior therapy is effective in increasing the academic-professional self-esteem of students in Tabriz schools, showed that the difference between the mean groups in the post-test at the error level of 0.05 to increase self-esteem Students were meaningful. Therefore, it can be concluded that dialectical behavior therapy had a significant effect on increasing the

academic-professional self-esteem of students in Tabriz schools. The results of the hypothesis were consistent with the findings of Karami and Amir Timouri (2013), Dadpour, Tavakolizadeh, and Panahi Shahri (2012), Javanbakht (2012), Vatan Khah, Nick Amal and Nick Shouar (2011), Ostadian, Sudani and Mehrabi Zadeh Honarmand (2008), Roepke, Schroderabe, Schtz, Jacob, Dams, Vater, Ruter, Merk, Heuser, and Lammers (2010). It is noteworthy that due to the common components that exist in dialectical behavior therapy intervention methods with emotional rational behavior therapy and metacognitive intervention method in cognitive intervention, due to the limitations of research with dialectical behavior therapy method on the variable of academic-professional self-esteem, in addition to these studies, studies of emotional rational effectiveness as well as metacognition were also considered.

Explaining the results of the above research, it can be said that self-esteem is self-confidence, the right to be successful and happy, feeling valued and worthy, as well as expressing a desire to achieve values and enjoy the fruits of their own efforts. In fact, this definition includes a complete representation of cognitive and advanced mental activities. In the theory of therapeutic methods of coping strategies, rational-emotional and metacognition, considering that self-esteem includes the difference between real and ideal self, social comparison and causal attributions, can be the effective way of coping strategies that affect some cases. There is denial, projection, and lack of confrontation. At the source of the documents, Ali found self-esteem. Information provided. What is desired in dialectical behavior therapy is in two stages of conscious attention and emotional regulation including application and cognitive knowledge and methods of information management (metacognition), creating dialectical thinking including balance between emotion and logic (rational-emotional therapy). and the dialectic of change-acceptance (behavioral cognitive hypnosis) and thought inconsistency (metacognition), application It is noteworthy that, given that the existence of self-esteem as the core of the treatment method is dialectical behavior therapy (Blennerhassett & Wilson, 2005), any claim about the effectiveness of this method on the promotion of self-esteem seems correct. The results of multivariate analysis of covariance on the fact that dialectical behavior therapy is effective in reducing test anxiety and its components (social humiliation, cognitive error, stress) of students in Tabriz schools, showed that the difference between the mean groups in the post-test at the level Error 0.05 was not significant for reducing students' test anxiety and its components (social humiliation, cognitive error, stress). Therefore, it can be concluded that dialectical behavior therapy had no significant effect on reducing test anxiety and its components in students of Tabriz school centers. Hypothesis results were not consistent with the findings of Karami and AmirTimouri (2013), Dadpour, Tavakolizadeh, and Panahi Shahri (2012), Sepehrian and Rezaei (2013), Shahandeh and Safarzadeh (2010),

Amiri Majd and Shahmoradi (2009), Bicer, Perihan and Lee (2020) and Kendall (1994). In explaining the findings of this issue, it can be stated that according to the cognitive-behavioral perspective of test anxiety, anxiety as a cognitive component and excitability as a behavioral response to test anxiety. Hence, the cognitions and emotions that make a person aware of the exams are to some extent reinforced by the dependencies (conditionalities). Therefore, theoretically, cognitive-behavioral strategies are rational therapies. Scores from cognition of anxiety are constant throughout time, and excitement as a temporary quality of the mind affects the test situation. Concern, on the other hand, is a firm personality tendency that interferes with cognitive function and automatic reactivity and maintains and perpetuates test anxiety (Mahdavi Ghoravi, Khosravi, & Najafi, 2012).

What can be analyzed in this section is the presence of the cognitive component of test anxiety, i.e. anxiety, and its physiological component, i.e. excitability, which due to the multidimensional nature of the dialectical behavior therapy intervention method, both components are affected simultaneously. In fact, with the help of regular desensitization intervention methods, stress immunization training and supportive counseling, in the section on disturbance tolerance skills, the dialectical behavior therapy method focuses on the excitability component of the behavioral component of the disorder and the automatic part of behavior, and with the help of Methods of Cognitive-Behavioral Therapy, Rational-Emotional Therapy, and Cognitive-Behavioral Hypnosis in Attention Awareness Skills and Emotional Regulation by Dialectical Behavior Therapy Intervention with the Center for Targeting the Cognitive Component of Exam Anxiety. Cognitive training can increase effectiveness and reduce the stability of anxiety cognitions, while at the same time removing the orientation from the goals of functional-avoidance development and gradually leading to the goals of functional-avoidance and ultimately dominance. But the reason for the lack of significant impact can be the short duration of training, individual differences and many other factors.

Conclusion

Dialectical behavior therapy is in fact a modification of cognitive behavioral therapy. The results of studies show the effectiveness of this treatment model on many disorders such as anxiety and depression. From the above, it can be concluded that dialectical behavior therapy, although considered a new therapy from the third generation of therapies, but in many reputable scientific centers in the world is considered and used for emergencies and interventions in critical and Treatment of disturbed patients and complex disorders. Therefore, it can be acknowledged that dialectical behavior therapy can be effective in increasing academic-professional self-esteem and reducing students' test anxiety.

Disclosure Statement

No potential conflict of interest was reported by the authors.

ORCID

Seyed Mahmoud Tabatabaei: http://orcid.org/0000-0003-4379-3103

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