Efficacy of group cognitive-behavioral therapy on depression and anxiety of fat adolesants

Roshanak Khoda BakshPir Kalani[1], Adel Mokhberi[2] and Shiva Alinaghiloo[3]

[1]Associate Professor at Alzahra University, Department of Clinical Psychology.
[2]PhD student, Department of Educational Psychology, Tabriz University.
[3]MA student, Clinical Psychology, Psychology Department of Alzahra University.

ABSTRACT

Purpose: The aim of this study was to determine the efficacy of group cognitive-behavioral therapy on reducing anxiety and depression of fat teenagers. **Method:** The statistical population of this research consisted of all high schools in Karaj,16 students were selected through random sampling and were classified into experimental and control groups and received 12 session group therapy. Before beginning the sessions, a pre-test was given to the participants and after finishing all the sessions, a post-test was administered. The results of tests were calculated via SPSS Software and also via covariance analysis statistical method. **Findings:** group cognitive-behavioral therapy was effective in relieving the symptoms of anxiety and depression of participants and caused changes in tests᾿ results. **Conclusion:** group cogitive-behavioral therapy is effective in curing fat teenagers who suffer from anxiety and depression.
KEY WORDS: Anxiety, Depression, group cognitive-behavioral therapy.

1. INTRODUCTION

Fatness refers ta a state in which excess fat accumulates in body (Sadok & Sadok, 2007). It causes not only physical disorders but also mental disorders such as depression and anxiety by reducing self-efficacy [1]. That's why simultaneous development of depression and anxiety is prevalent among fat teenagers. Depression with the greatest longevity (17%) among other mental disorders and with an annual spread rate of 1.59 [2] has attracted heavy attention since the 1970's. It is more prevalant in adolescents than adults [3], so that minimally 20% of adolesants develop it before the age of 18. Its sympotms, the same as those in adults [4] include: a) poor social skills, b) drug and cigarette consumption [5], c) lack of participation in exhilatating activities, d) academic problems, e) conduct disorders, f) eating disorders, and g) intention and attempt to commit suicide [6], Female teenagers have higher dipression rate [7]. Thapar [8] conducted a study in which they found that factors such as poor social interactions, the number of growth factors, exposure to psychological stress and more importantly family history of depression were effective in causing this disorder. It has been demonstrated that one of the drastic and appropriate measures for people with this genetic disorder is primary prevention [9]. Morover, researches have indicated that cognitive and somatic symptoms of depression in males in late adolescence and sleeping problems in females in early adolesence reflect the following development of this disorder [10]. This disorder is closely associated with early or late sexual maturity too [11]. In another study on the connection between overall self-worth and depression, a significant relationship was revealed between overt self worth and social anxiety disorder and major depression, however no significant association was discovered between covert self worth and these two disorders There are considerable overlaps between depression and other psychiatric disorders especially anxiety-related disorders [12]. That's why it has been showed that while diagnosing its simultanty with anxiety disorders (particularly social phobia), attention must be paied [13].

Anxiety disorder which is charaterized by physical symptoms such as headaches, sweating, rapid heartbeat, chest pain and brief stomach upset [2]. has been the commonest mental disorder in the recent decades. Only in United States, approximately 30000000 patients suffer from this disorder. It has been found that women develop this disorder twice as men do [2]. This disorder is caused by problems with self-perception [14], the level of paternal anxiety and its relationship with adolesants' anxiety level and academic achievements [15], paternal behavior patterns and their stable and honest relationship with their children [16], Manifold known cures, one of which is called cognitive-behavioral therapy, have been discovered for depression and anxiety disorders. The mentioned

Corresponding author: Shiva Alinaghiloo, Psychology Deppartment of Alzahra University. Email: *shivaa538@yahoo.com*

therapy being also called learning-cognitive therapy or in more concrete terms cognitive therapy was found by Beck et al. in the 1970's and refers to different cures stressing the importance of cognitive-behavioral processes concerned in the development of psychological disorders and cognitive- behavioral empirical measures taken to alter inefficient response patterns. Therapeutic interventions for reducing abundant undetected responses and teaching new cognitive-behavioral skills are designed to reduce and control unwanted behaviors and foster more appropriate behaviors [4]. Concidering high prevalance rate of depression and anxiety in society [2], individual psychotherapy is not effective per se, which neccesiates starting group therapy being economically efficient.

Vics [17] investigated the effect of raising children's awareness on anxiety and depression in adolescence and found that programs attempting to improve basic cognitive skills in children could mitigate the deliterious effects of stress creators and forestall the development of depression and anxiety. Beck [4] compared and contrasted adolesants with depression and those without it and found that mental structure of depressed adolescents is developed in a way that their perceptions of reality are different from those of normal teenagers. Vaziri [18] selected 20 students randomly and commited 12 sesions to study the effects of group cognitive therapy on depression sympotoms relief. The results were significantly meaningful. *Sobhi*-Gharamaleki [19] conducted a study consisting of 90 female students suffering from test anxiety. The results showed the effacacy of this therapy in allaying *test anxiety.*Hassanvand *Amouzadeh [20] examined the effects of* cognitive- behavioral self-esteem group training on social anxiety and mental health of 30 anxious male adolesants. The treatment included 13 sessions, each lasting 90 miniutes. The findings were significantly meaningful. Khodaie [21] measured the effect of cognitive-behavioral group therapy on the depression developed by cancer patients. To this end, 24 cancer patients suffering from depression were studied for 12 sessions in which they were receiving cognitive-behavioral group therapy. The result revealed the efficacy of this therapy. Sajadi Nejad [22] studied the effect of cognitive-behavioral group therapy on depression and inabilities from migraine and tension headaches among female students who received a 9 month therapy. The results showed that this technique could significantly reduce inabilities from migraine and tension headaches. Martino [23] drew a comparision between preventive cognitive-behavioral therapy and typical couseling. The results indicated the prominence of cognitive-behavioral therapy compared to typical counceling. Levinson [24] in a meta-analysis of the effect of controlled cognitive-behavioral interventions on adolescents' depression, found that cognitive-behavioral therapy significantly affected the disorder and in turn 63% of the patients improved. Hawton & Salkovskis [7] reported that Behavioral therapy and cognitive behavioral therapy both played a pivitol role in alleviating anxiety. Cognitive threpay however, is more effective. Zarb [4] found that Beck's *therapeutic* approach could be beneficial for adolescent depression. Aghaie [25] drew a comparision between three alternative approaches to easing depression which included medication, cognitive therapy and behavioral therapy. The statistical population of the study consisted of all adolescents and young people aged 13-24, who had attended two counseling centers in Isfahan. 60 participants were selected through random sampling as the sample of the study, but due to loss, it was reduced to 50 participants. The participants were categorized into three experimental groups and one control group and received one particular therapy each week which continued for 7 regular sessions. The results showed that all three approaches were effective in treating depression. Chapliz [26] gave group cognitive-behavioral therapy to 21 depressed adults for 18 weeks and found the approach effective.. Bidel [27] studied the maintenance of the effect of group cognitive-behavioral therapy on relieving social anxiety and found that paticipants could maintain the results of the therapy for 3-5 years. Haghshenas [28] not only investigated the effect of cognitive-behavioral therapy on easing test anxiety, but also showed its maintenance for two months. *Yaeghoobi* Nasrabadiet [29] exammined the effect of group cognitive-behavioral therapy on reducing anxiety and depression developed by 14 patients who had been hospitalized in Isfahans' Noor Hospital Psychiatric unit. The participants who were selected through random sampling were divided into two experimental and control groups. The therapy lasted ten group therapy sessions. The results showed a significant effect of the therapy on depresssion not anxiety. In a study by Mahmudi Gharaieet [30], a number of teenagers who had survived Bam earthquake and were suffering from stress disorder arising out of it received group cognitive-behavioral therapy for 4 sessions. Rahmanian [31] studied the efficacy of group cognitive-behavioral therapy in social anxiety developed by female students and the therapy one-month maintenace.

As mentioned earlier, numerous studies have been conducted on the effectiveness of cognitive-behavioral approach in treating different mood and anxiety disorders, however none has been carried out on the effect of group cognitive-behavioral therapy on depression and anxiety of fat adolescants. On the other hand, considering the effect of fatness on anxiety and depression of these students and its prevalence in the recent years, the current study whose aim was to investigate effect of group cognitive-behavioral therapy on depression and anxiety of fat adolescants could be a good start of such type of studies.

The following research hypotheses were formulated:
1. group cognitive-behavioral therapy has a significant impact on relieving fat adolescents' depression.

2. group cognitive-behavioral therapy has a great effect on aleviating fat adolecents' anxiety.

2. METHOD

To test the above mentioned hypotheses, the pretest-posttest experimental and control groups were used. The statistical population of the study consisted of all male highschools in quadruple areas of Karaj. Among the four areas, one area was selected through cluster sampling. From this area, five high schools, from which two classes-from which 16 qualified students were randomly selected and classified into two experimental and control groups. The experimental group received group cognitive-behavioral therapy for 12 sessions. Each session lasted 1.5 hour and the whole program lasted for three months. The criteria for members of the group which were set through questionnaires and interviews included: Body mass index of 30 or above, mild to moderate level of depression and anxiety, not receiving concurrent treatment including medication, not developing serious psychiatric illnesses, the absence of suicidal thoughts and impulses. To assess the members' fatness, depression and anxiety levels and collect data, the following questionnaires were used:

1. **Beck's depression inventory**: this 21 item multiple choice self –report inventory is one of the most suitable instruments for measuring depression. This instrument is used to measure physical, cognitive and behavioral symptoms of depression. Each item is rated between 1-3. Therefore, the whole questionnire is rated between 0-63. 4 items are dropped from the current version of the questionnaire and they are replaced with other items. Two items (16 & 18) also are edited so that they can be more sensetive to depression. This version of the inventory is designed for individuals aged 13 and over. Beck, Steer & Brown (2000 as cited in Fathi, Ashtiani & Dastani, 2010) measured the Internal consistency for the BDI at .73 to .92, with a mean of .86 and with alpha coefficients of .86 and .81 for psychiatric and non-psychiatric populations respectively. Fathi Ashtiani & Dastani [32] measured alpha coefficients of .92 and .93 for outpatients and students respectively and test-retest coefficient of .93 in one week interval. The shortened version of this inventory was standardized by Dadsetan & Mansour (1990). This questionnaire was also used by Nourbala & Shaddel (1994). Rajabi et al (2001) recorded the Cronbach's alpha coefficient for the whole questionnaire at .87, split-half reliability coefficient at .83, and test-retest coefficient of .49 in a three week interval.
2. **Beck's anxiety inventory**: this 21 item self-report inventory was designed by Aaron T. Beck (1990) and is used for measuring the severity of teenagers' and adults' anxiety. As with depression inventory, each item in this inventory is rated between 1-3. Therefore, the whole questionnire is rated between 0-63. The internal consistency coefficient of the instrument, test-retest coefficient in one week interval are respectively .92 and .75. The correlation between the items ranges from .30 to .76. Content, concurrent, construct, diagnostic and factorial validity of the inventory is measured. It, thus reflects high efficiency of this instrument in measuring the severity of anxiety (Beck et al., 1988, as cited in Fathi, Ashtiani & Dastani, 2010). Gharai (1993) reported the reliability coefficient of the instument in a two week interval at .80. Kaviani & Mousavi (1999) in a study evaluating the psychometric properties of the instrument among Iraninan population, estimated the validity coefficient, test-retest reliability coefficient in a one month interval and cronbach's alpha at .72, .83 and .92 respectively.
3. **Body Mass Index (BMI):**this index is calculated by dividing weight in kilogram by the square of hieght in meters. Weights were measured by high-tech digital scale (made in Canada) and heights were calculated using a tape with an accuracy of 0.5 cm.
4. **Structured Clinical interview for axis 1 disorders:**a semi-structured interview for diagnosing axis 1 disorders. This instrument was desiged by First, Spitztr, Gibbon & williams (1997). This istrument has high reliability and validity and is suitable for diagnosing mental disorders Sadeghi [33][34].

2.1. The implementation procedure of the sessions

The content and structure of the sessions was adopted from the relevant references in the field of cognitive-behavioral therapy. One of these references was *group cognitive therapy* by Michael Frey.

First session: Greeting, review of the structure of the sessions, explanation of the rules and regulations, Meeting each other, presenting the briefcase allegory, explanation on the role of thoughts and emotions in the emergence of behaviour, presenting the practice of guided visual peace. Second session: explanation on the features of self-emerging thoughts, and how to reach them and identify cognitive errors. The members also identified the potential residence against the therapy and set out to find solutions to face them. Third session: instruction of the participants about the nature of signs and the relationship between the signs and self emerging thoughts, and aslo the

instruction of downward vector in order to identify the signs. The members were motivated to make a list of their enjoyable activities and include them in their weekly schedule. Fourth session: working on the downward vector and tackling the problems of the members had with it. Fifth session: in this session, the members provided cognitive maps of the connection between their beliefs and graded their beliefs on the scale of mental problems units, based on the intensity of the excitement related to each belief. Sixth session: participant found out in this session that the beliefs may change and some examples were given of the beliefs that have changed in the course of human history. Seventh session: In this session, the participants found out about the strongest technique for challenging the beliefs, which is logical analysis, implementing it on their beliefs. Tenth session: This session had two major aims: 1. the participants become capable of determining the events revealing their beliefs, and confront it, first mentally, then in reality. 2. By assistance of the therapists, they become capable of finding an alternative or contradiction for each one of their false beliefs. Eleventh session: The participants were taught the self-punishing and self-rewarding techniques. The members also were motivated to build a practical program for themselves, encouraging them to continue the techniques and attitudes they have gained throughout the program. Twelfth session: this was the last session. The members exchanged feedbacks. They were asked for their comments on the program. The participants answered the Anxiety and Beck questionnaires once again. Their was also some instruction regarding the symptoms of intensification of depression or anxiety, and measures to avoid them were taught. The therapy took 12 sessions, conducted in Razi therapy center in Karaj, each session taking one hour and a half. At the end of each session some assignments were given for the next week, the review of which took half an hour of the next session.

3. Findings

Table 1 shows the descriptive indicators of mean and standard deviation of the anxiety pre-test / post-test scores in intervention group and comparison group along the scores of Kolmogorov-Smirnov test for testing the assumption of normality.

Groups	Variables	Number	Mean	Standard deviation	Significance level of kolmogrov-Smirnov test	Test result
Intervention	Anxiety pre-test	8	41.46	3.44	0.93	Null hypothesis accepted
	Anxiety post-test	8	23.33	4.88	0.89	Null hypothesis accepted
Comparison	Anxiety pre-test	8	39.94	2.03	0.60	Null hypothesis accepted
	Anxiety post- test	8	40.60	2.38	0.95	Null hypothesis accepted

Table 1 shows the descriptive indicators of mean and standard deviation of the anxiety pre-test / post-test scores in intervention group and comparison group along the scores of Kolmogorov-Smirnov test for testing the assumption of normality.
As you see on the table above, mean of the anxiety scores in the intervention group pre-test stage is 41.46 which are 39.94 for the comparison group. In the post-test stage, mean of the anxiety scores is 23.33, while in the comparison group; mean of the anxiety scale scores is 40.60. Normal distribution of the scores is also approved based on the result of Kolmogorov-smirnov test.
Table 2 shows the descriptive indicators of mean and standard deviation of depression pre-test/ post-test in intervention and comparison groups along the results of the kolmogorov-Smirnov test for testing the assumption of normality.

groups	Variables	Number	Mean	Standard deviation	Significance level of kolmogrov-Smirnov test	Test result
Intervantion	Depression pre-test	8	24.86	2.82	0.90	Null hypothesis accepted
	Depression post-test	8	17.53	4.27	0.75	Null hypothesis accepted
Comparison	Depression pre-test	8	25.52	3.02	0.76	Null hypothesis accepted
	Depression post-test	8	24.73	3.24	0.91	Null hypothesis accepted

As you see in the table above, the mean of depression scores in the intervention group in pre-test stage is 24.86 which is 25.52 in the comparison group. In the post-test stage, the mean of depression scores in the intervention group is 17.53, while in the comparison group; the mean of depression scores is 24.73. The normal distribution of the scores in pre-test/ post-test scores is also confirmed based on the result of Kolmogrov-smirnov test.

The assumption of homogenity of regression slopes: table 3 shows the results of mutual influences between the participants within the two groups based on anxiety and depression.

Table 3: the results of tests of the effects among the participants (dependent variable: depression and anxiety)

indicator	Variable	Degree of freedom	Mean of squares	F value	Level of significance
Pre-test/Post-test	Anxiety	1	16.22	1.22	0.27
	Depression	1	4.12	0.54	0.46

Considering the results from the table above, interactive effect of the pre-test and groups were 1.22 for anxiety and 0.54 for depression, which is not significant (P> 05) . Based on these results we can conclude that reciprocal vectors arenot significant, as a result,regression slopes of the groups are equal in the dependent variables. Co-variance analysis assumes that the variance of each one of the cells must be the same. Different values of the cells is not problematic, but value of each cell shouldn't be four times as the smallest cell. If so (because of the drop of participants or any other reason) the variances of the cells must be analyzed in order to make sure that there is no cell with a variance 10 times as the smallest variance. In order to analyze the assumption of variables' homogenity of variances Levin test was used. Table 4 shows the results of Levin's variance homogenity test among dependent variables of the study within the intervention and comparison groups.

Table 4 shows the result of Levin's test for testing the assumption of dependent variable's variance homogenity in the intervention and comparison groups.

subscale	Numerator's degree of freedom	Denominator's degree of freedom	F value	Level of significance
anxiety	1	14	1.22	0.27
depression	1	14	0.54	0.46

As you see in the table above, the observed F value of with degree of freedom of 1 and 14 in the tested variables shows the null hypothesis acceptance and as a result, variance homogenity of intervention and comparison groups in these variables. In order to test the intervention effect, multi-variable co-variance was carried out on the post-test scores compared to pre-tests

Table 5. Summary of the results of multi-variable co-variance analysis for the comparison of the mean of anxiety and depression post-tests with comparison of pre-tests in the intervention and comparison groups.

effect	test	value	F	Df of hypothesis	Df of error	Significance level
group	Pillai's trace	0.91	80.20	2	11	0.01
	Wilk's Lambda	0.08	80.20	2	11	0.01
	Hotelling's trace	10.46	80.20	2	11	0.01
	Roy's largest root	10.46	80.20	2	11	0.01

The content of table 5 shows that there is a significant difference between intervention and comparison groups at least in for one of the dependent variables (depression or anxiety). In order to spot the difference, co-variance analysis (Mancova) was conducted to compare the post-tests of both of the dependent variables of anxiety and depression with comparison of pre-tests in intervention and comparison groups.

Table 6. the result of one-way co-variance analysis (Mancova) for the comparison of pre-test / post tests of anxiety and depression tests , in the intervention and comparison groups

Effect	Dependent variable	Sum of squares	Degree of freedom	mean of squares	F	Significance level
group	anxiety	2421.57	1	2421.57	13.75	0.01
	Depression	1220.16	1	1220.16	16.25	0.01

The results obtained from table 6 shows that the analysis of co-variance is significant in the variables of anxiety, F=13/75.P=0/01, and depression F=0/01 .P=16/25. Having the results, it can be concluded that there has been a

significant change in the decline of the scores in the variables of anxiety and depression in the post-test compared to the comparison group as a result of the group therapy intervention.

DISCUSSION

This study was designed and conducted in order to determine the effectiveness of cognitive-behavioural group therapy on the decline of depression and anxiety of fat adolescents. Considering the obtained results and comparison of the mean of the differences of depression and anxiety scores in the pre-test / post-tests of the comparison group or control group it can be concluded that the changes have been made because of the psychological intervention in the control group. Thus, both of the hypotheses of this study concerning the effect of cognitive-behavioural group-therapy on depression and anxiety of fat adolescents were confirmed. Findings of this study are in line with the findings of the studies of Vaziri [18]., Khodaei [21]; Sajjadi [22]; Martino[37]; Levinson [23]., Aghaei [25]; Chepliz [26], who used cognitive and cognitive-behavioural individual and group-therapy in order to cure trait and anxiety disorders. Nasirabadi et al (2003) confirmed the effect of cognitive-behavioural group-therapy only on depression, but it can be caused by taking too much anti-depressents against anti-anxiety medications by the participants and focusing of treatment on the depression of the patients. Also Gharamaleki et.al (2008), found no difference between the method of teaching study skills and cognitive therapy in their study, which can be a result of few sessions of therapy[37]. The important point in the application of cognitive-behavioural therapy the benefits it offers, such as gaining hope that the problems are solvable and the therapy is useful, receiving feedback from other members, creating a sense of altruism towards other members and trying to help them, imitation of the proper behaviour of other members (specifically the ones who are improving), etc. Furthermore, many studies such as Bidel [27][36].,Rahmanian [31]., Haghshenas [28][35] have proved its long-term effectiveness. Limitations of this study include lack of a following period, working with a limited sex (fat boys) and age group, which makes it difficult to generalize the findings. In order to increase the validity and generalizability of the findings of this study, it is suggested that the future studies make use of larger sample, a following period, and samples of fat girls suffering from anxiety and depression.

REFERENCES

[1] Khoshnevisan, Z., & Afruz. Gh. (2011). Relationship between self-efficacy and depression, anxiety and Stress. Thought and Behavior, 5(20). 73-80.

[2] Sadock, B., & Sadock, V. (2012). Summary of psychiatry: Behavioral Sciences/Clinical Psychiatry, 9(2), Translated by Farzin Rezaii. Tehran Publications. 4.

[3]Veissman,M.M.,&Pakel, E.S.(1974).The depressed woman: A Study of Social relationships. Chicago: University of Chicago press.

[4] Zareb, j. (2007). Teenagers' behavioral treatment cognition and evaluation, Translated by Khodayarifar PhD and Yasaman Abedini, Tehran, Roshd Publications.

[5] Isao, S., & Peterman, F. (2005). Anxiety disorders in children and teenagers, Translated by Masud Bratian. Tehran. Association of Teachers and Parents Publications.

[6] Harington, R. (2009). Ways of curing children and teenagers' depression, Translated by Hasan Tuzandeh Jani and Nasrin Kamalpoor. Tehran. Peike Farhang Publications.

[7] Hauwton, K., Sulkus, P., Kirk, J., & Clark, D. (2013). Cognitional-behavioral treatment. Practical guideline in curing mental disorders (1st Volume), Translated by HabiboLah Ghasemzadeh, Arjm and Publications. 10.

[8] Thapar, A., Collishaw, S., Spine, D.,&K. Thapar, A. (2012).Depression in adolescence. The Lancet, Vol,379, No,9820.pp:1056-1067.

[9]Manshouver,K.,Smit,F.,Ruiter,M.,Ormel,H.,Verhulst,F.,&Vollebergh,W.(2012).Identifying target groups for the prevention of depression in early adolescence: The TRAILS study. Journal of Affective Disorders,Vol,138, No,3.pp:287-294.

[10] D.J.Van Lang,Nstasj.,F.Ferdinand,R.,& C.Verhulst, F.(2007).Predictors of future Depression in early and late adolescence. Journal of Affective Disorder,Vol,97,No,1-3.pp:137-144.

[11] Kaltiala-Heino,R.,Kosunen,E.,Rimpela,M.(2003).Pubertal timing, sexual behaviour and self-reported depression in middle adolescence. Journal of Adolescence.Vol,26,No,5.pp:531-545.

[12] A.VanTujil,L.,J,Dejong,p.,Sportel,B.E.,DeHulla,Ev .,&H.Nauta,M.(2014).Implicit and explicit Self-esteem and their reciprocal relationship with Symptoms of depression and social anxiety: A longitudinal study in adolescents. Journal of Bahavior Therapy and Experimental Psychology, Vol 45,No 1.pp:113-121.

[13]Vaananen,J.,Frojd.S.,Rnnta,K.,Marttunen,M.,Helminen.,M.,&Kaltia-Heino,R.(2011).Relationship between social phobia and depression differs between boys and girls in mid-adolescence. Journal of Affective Disorders,Vol,133,No,1-2.pp:97-104.

[14] Nikmanesh, Z., &Yari, S. (2011). The relationship between self-efficacy and self perceptions and male and female high school students' exam anxiety. Studies of Educational Psychology, 8(14), 127-146.

[15] Rahmati, A., &Saeedi, M. (2011). Study of the relationship between parents' anxiety and their children's educational achievement in pre-university course, 7(29).

[16] Taheri, A. (1995). Comparison of the measure of teenagers' anxiety with parents having different behavioral models. MA Thesis of Educational Sciences, The Faculty of Science of Tehran Teacher Training University. Unpublished.

[17]Vics,M.,Wild,T.C.,Ploubidis,G.B.Naicker,K.,Cairney,J.,&North,C,R.(2014).Childhood cognitiveability and it's relationship with anxiety and depression in adolescence.Journal of Affective Disorders,Vol152-154.pp:139-145.

[18] Vaziri,S.,Jamshidfar,Z.,&Darbani,A.(2011).The Effectiveness of Conitive Group Therapy decreasing the Symptoms of Depression.Procedia,Vol,30.pp:2173-2179.

[19] Sobhi Gharamaleki, N., RasulzadehTabataba,I, K., AzadFalah, P., &FathiAshtiani, A. (2008). Study of the efficacy of curative cognition and study skills education on anxious students' treatment. *The scientific journal of Psychology in Tabriz University*, 3(11), 43-66.

[20] Hasanvand Amuzadeh, M., Aghili, M., &Hasanvand Amuzadeh, M. (2013). Efficacy of behavioral-cognitional group training of self-esteem in socially anxious teenagers' social anxiety and mental health, 14(2), 26-37.

[21] Khodaii, S., Dastjedi, R., Haghighi, F., Sa'adatju. S. R., &Keramati, A. (2011). The Impact of behavioral-cognitional treatment group on cancer patients' depression, The scientific Journal of Birjand Medical Sciences University18(3), 183-190.

[22] Sajadi nezhad, M., Mohammadi, N., Taghavi, S. R., &Nahid, A. (2008). The impact of behavioral-cognitional treatment group on migraine patients' depression and disability feeling. Journal of Iran Psychiatry and Clinical Psychology, 14(4), 411-418.

[23] Martino vic,Z.,Simonovic,P.,&Diokic,R.(2006).Preventing depression in adolescents with epilepsy. Epilepsy and behavior,Vol,9,No,4.pp:619-624.

[24] Levinshon,P.M.,Clarke,G.N.(1999).Psychosocial treatment for adolescent depression, Journal Of the clinical Psychology Reviewig.pp:329-342.

[25] Aghaee, A., Rafiian Esfahani, M., Nikyar, H., &Mahdizadegan, I. (2009). Comparison of three ways of medicinal treatment. Behavioral and Cognitional treatment in decreasing teenagers' depression. Research in Psychology. The Islamic Azad University of Esfahan Branch Khorasgan, 29, 69-80.

[26] Chappeliez,P.(2000)Presentation of depression and response to group cognitive therapy with Older adults. Journal of clinical Gerontology.Vol,6,No,3.pp:74-156.

[27] Beidel,DC.,Turner,SM.,Young.J.(2006).Social Effectiveness Therapy for Children: Five years later. Behavior Therapy.pp:416-425.

[28] Haghshenas, H., Bahradar.,Setayesh, J. R., Zahra. (2007). Evaluation of decrease in exam stress in a group of pre-university teenagers. *Journal of Iran Psychiatry and Clinical Psychology*, 15(4), 63-69.

[29] Yaghubi NasrAbadi, M., AtefVahid, M. K., &Ahmadzadeh. GH (2003). The impact of bahvioral-cognitional science.

[30] Mahmudi Gharaii, J., Mohammadi, M. R., Bina, M., Yasemi, M. T., &Fakur, Y. (2006). Comparison of the impact of behavioral-cognitional treatment group on the symptoms of stress disorders after the event with the witness group among the teenage survivors from the Bam Earthquake. The Faculty of Medicine in Tehran Medical Sciences University, 64(8), 57-67.

[31] Rahmanian, Z., Mirzaiian, B., &Hasanzadeh. R. (2011). The Impact of group behavioral-cognitional treatment on female students' social anxiety. The Scientific Journal of Medical Sciences of Shahed University, 19(96).

[32] Fathi Ashtiani, Ali., &Dastani, M. (2010). Pyshological Tests: Evaluation of Personality and Psycho. Tehran: Be'sat Publications.

[33] Sadeghi, Kh.,Gharaii, B., Fati, L., &Mazhari, Z. (2010). Efficacy of behavioral-cognitional treatment in fatty patients. *Iran Psychiatry and Clinical Psychology.* 16(2). 107-117.

[34] Swain,J.,Hancock,K.,Hainsworth,C.,&Bowman,J. (2013).Acceptance and Commitment Therapy In the treatment of anxiety: A.Clinical Psychology Review,Vol,33,No,8.pp:965-978.

[35] Vosoughi,S.,Poursharifi,H.,&Alilo, M.(2011).The Effectiveness of Cognitive-Behavioral Group Therapy on Self-Efficacy and Assertiveness Among Anxious Female students of High Schools. Procedia,Vol,30.pp:2586-2591.

[36] Yalom, E., &Lashj, M. (2013). Group Mental Treatment: Theoritical and Practical, Translated by Mahshid Yasaii, Tehran, Danezheh Publications, 3.

[37] Frey, M. (2014). Group Treatment Cognition, Translated by Ali Sahebi and Hasan Hamidpoor, Tehran, Saiehe Sokhan Publications.