The Effectiveness of Cognitive Behavioral Group Therapy on Anxiety and Acute Stress in Adolescents Rescued from Earthquake in East Azerbaijan Province, Iran

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Abstract
The present study examines the effectiveness of cognitive behavioral group therapy on anxiety and acute stress in adolescents rescued from earthquake in city of Hariss, East Azerbaijan Province, Iran. Twenty of the adolescents rescued from earthquake in East Azerbaijan (city of Hariss) who met the inclusion criteria were randomly selected for the study. This is a quasi-experimental study using pre-test and post-test design with the control group. The participants were randomly divided into two groups after pre-test. In the experimental group, the cognitive behavior group therapy, they were trained by 8 sessions of two hours and the control group did not receive any intervention. The instrument used in this study was Depression Anxiety Stress Scale-21 (DASS-21) to assess symptoms of anxiety and acute stress in adolescents rescued from earthquake in city of Hariss, East Azerbaijan Province, Iran. In order to analyze the data, descriptive and inferential statistical methods (ANCOVA) were used. The results show a significant difference between experimental group and the control group after implementing the dependent variable and by a factor of 99% confidence; one can be considerd the cognitive-behavioral group therapy as positive in reducing symptoms of anxiety and stress in the experimental group. Further, the anxiety in the experimental group significantly decreased compared to the control group in pre-test and stress was significantly reduced in the experimental group and the control group in pre-test. There was a significant difference in reducing anxiety and stress of the experimental group. Group cognitive-behavioral therapy in adolescents rescued from earthquake in East Azerbaijan (city of Hariss) has been effective in reducing anxiety and stress. The results indicated that the treatment had a significant effect on both gender. Therefore, this method can be used for both genders.
Keywords: cognitive behavioral group therapy, anxiety, acute stress, adolescents, earthquake

Introduction
Natural disasters refer to a series of harmful events which do not have human origin. These events are often unpredictable, or at least a long time before their occurrence cannot be predicted (Abdullahi, 2001). Natural disasters may include a variety of events such as earthquakes, floods, hurricanes, tornadoes, tsunamis and so on. Earthquakes and natural disasters, which are one of the most destructive and ruinous effects having on the psyche of survivors remained for years. The psychological damages of earthquake are much greater than the losses of life and property because the injured person at the scene of the disaster finds him helpless in the face of enormous natural forces and is forced to surrender. Earthquake is among the phenomena that make the community face enormous risks and uncertainty. Anxiety and stress symptoms after the first earthquake

alongside the social structure chaos and loss of social support can be seen in the earthquake. Post traumatic stress disorder is the survivor's first response to the major event that marks symptoms such as nightmares, frequent association accident scenes in people's minds, aggressive behavior, being pessimistic to others, poor concentration, problems in emotions, and erratic sleep. It should be noted how different people approach to developing the illness is different which deals with some factors such as the severity of the accident and the social protection of victims after a disaster (Abhari, 2012).The earthquake in the East Azerbaijan was 2.6 Richter scale and is regarded as the severe earthquake. Earthquake survivors often lose their hopes for the future and are not able to pursue their former programs or plans for the future of education, marriage and career choices and spend without purpose, with constant anger, insomnia, inability to concentrate (which causes a sharp drop in school). Having concerns and being permanently alert and jumping from place to live due to the slightest stimulus make the life of survivors difficult (Fadaii, 1991).

Social consequences of the earthquake

The consequences of earthquakes in Iran follow a pattern that is also true in many other parts of the world. Sudden paralysis of the local economy often leads to the displacement of population, immigration, an increase in taxation and lead of the crisis in human affairs. After a short period, a passion for ambitious plans, reconstruction and interest in various projects, especially small towns and villages is forgotten. Gradually, the authorities' interest to rebuild destroyed areas is low and thus many places (especially the smaller ones) are not reconstructed and larger areas exchange to the abandoned hovel so its inhabitants began to migrate and less active members of their community to leave not only in Iran but in other places as the humanitarian and political earthquakes are rarely expressed by reviewers because they are not free to express its views on this matter are sensitive in this regard (Ambrsez 1991).

The psychological trauma of an earthquake

The earthquake is a psychological trauma that transforms features familiar environments and the person into a tangled chaos. The last adjustment methods that were familiar with the environment are not enough. Earthquake and the trauma of it such as staying under the rubble, injury, death of loved ones and homelessness, arranged normal life that fits a person's physiological tolerance he has to come together, the affected person lives in the turbulent environment with constant anxiety and boredom and is deprived of the normal human relations and the opportunity to rest.In these cases, what is seen much deterioration and decline in the early stages of psychological development of a child for the need for dependence, inability to speak, inconsistency in applying stimulation-taking, aggression, multiple nightmares about the night of earthquakes and its complications indication of a person's mind is trying to get rid of severe anxiety by draining slowly internalizing and externalizing it (Fadaii, 1991). The importance of trying to offset the effects of the earthquake: if the symptoms begin quickly, the adaption of an individual to the environment is better than before the disaster and broad and deep social protection and no previous physical and mental illnesses represent the possibility of further improvement. If the individual tragedies is well fed and allowed to rest and rightly and concludes that efforts has been taken by those responsible for damages to compensate for the effects and action, he will be in high spirits. But if he is hungry and thirsty and worn and do not consider the steps taken to be enough, he will lose his mood.

Children because they are still immature regarding the psychological defense, they are vulnerable to natural disasters (Fadaii, 1991). Since teenagers rescued from natural disasters such as earthquakes experienced a variety of injuries such as loss of family members or one of them, the loss of close friends, loss of home etc., they may be affected by despair, impatience, the anxiety and stress about the future, dropout and many other problems. The interventions in reducing anxiety and stress in adolescents are essential (Fadaii, 1991). Given the importance of these issues, in this study,

the effectiveness of cognitive behavioral group therapy on anxiety and acute stress in adolescents rescued from earthquake in city of Hariss, East Azerbaijan Province, Iran is examined. The main objective of the study was to determine the effectiveness of cognitive behavioral therapy group in reduces the symptoms of anxiety and stress for teenagers rescued from earthquake in East Azerbaijan. The research hypotheses in this regard include:

1. There is a significant difference between reduction of the anxiety in the adolescents rescued from earthquake in East Azerbaijan in experimental and control groups before and after the intervention of cognitive behavioral therapy group.

2. There is a significant difference between reduction of the acute stress in the adolescents rescued from earthquake in East Azerbaijan in experimental and control groups before and after the intervention of cognitive behavioral therapy group.

3. There is a significant difference between reduction of the anxiety in the male and female adolescents rescued from earthquake in East Azerbaijan in experimental after the intervention of cognitive behavioral therapy group.

4. There is a significant difference between reduction of the acute stress in the male and female adolescents rescued from earthquake in East Azerbaijan in experimental and control groups before and after the intervention of cognitive behavioral therapy group

Methodology

First, in coordination with the Organization of Psychology and Psychological Association and crisis intervention committee, the researcher was sent to earthquake-stricken areas of East Azerbaijan and after a review of the areas where an earthquake had occurred there and selection of students in those areas, during a meeting with students and their families the cause of visits to those areas and aim of the study was explained to them. In order to investigate the effectiveness of cognitive-behavioral intervention, participants were randomly assigned to experimental and control groups. And by manipulating the independent variable (cognitive behavior group therapy was performed in the experimental group. The control group was not treated).

The impact on dependent variables (anxiety and stress) was observed and measured. So in this study, a control position was considered so that the impact of independent variables can be compared with it. The subjects were randomly placed in the experimental and control groups. The control group was not exposed to the independent variable. Thus the present study is based on a quasi-experimental approach and a pre-posttest control group design was used. The questionnaires were randomly distributed so that the effect of the transposition of participants' response can be controlled. The population studied in this study included all the adolescents rescued from earthquake in East Azerbaijan Province, Iran who have been living in these villages in 2014.

Instruments of the study

Depression Anxiety Stress Scale-21 (DASS-21): (depression, anxiety, stress): the Depression Anxiety Stress Scale-21 (DASS-21) was prepared in 1995 by Loveibond. This scale has had both long and short form. The short form has 21 items that evaluate each mental structure of "depression "Anxiety" and "stress" by 7 different items. The long form of the scale contains 42 items, 14 of each measure a psychological or structural measure and short form with 21 items was evaluated by the Sahebi et al., (2005) for the Iranian population. Laoveibond and Loveibond (1995), in a large sample of 717 students showed that Beck DASS-21 scale had a high correlation (r =4%). Further, Antony et al (1998) gained a similar pattern of correlation in the medical samples. Grafoord and Henry (2003) also in a sample of 1771 participants in England where ther compared this scale with two other scales related to depression and anxiety. The reliability of the Cronbach Alpha for the total score was 97%. Moradipanah et al (2005) also approved the reliability of the scale.

Scoring methods

Scale 21 DASS- question the ability to detect and screen for symptoms of anxiety, depression and stress in the past week, The use of this scale for adults, although this test the ability of screening and diagnosis in adolescence as well. The questionnaire is completed based on a multiple-choice method and on the self-assessment. The responses ranged from never to always, so that people can scale their responses based on a scale from sometimes to always with the sign of *, scoring is from zero to three where zero is for the option of never, score one for few option, score two for the sometimes and score three was considered for always.

• Depression subscale consists of 7 items (21,17,16,13,10,5,3)
• The anxiety subscale consists of 7 items (20,19,15,9,7,4,2)
• Stress subscale consists of 7 items (18,14,12,11,8,6,1)
Methods of measuring scale for both genders are as follows:
Women:
• Depression: 0 to 16 normal, 17 to 20 mild, 21 to 29 moderate, 30 to 38 severe, 39 to 42 very severe.
• Anxiety: 0 to 14 normal, 15 to 18 mild, 19 to 25 moderate, 26 severe and 33, 34 to 42 very intense.
• Stress: 0 to 21 normal, 22 to 25 mild, 26 to 35 moderate, 37 to 42 severe, very severe not scored yet.
Men
• Depression: 0 to 14 normal, 15 to 17 mild, 18 to 25 moderate, 26 severe and 33, 34 to 42 very intense.
• Anxiety: 0 to 11 normal, 12 to 15 mild, 16 to 22 moderate, 23 severe and 30, 31 to 42 very sever.
• Stress: 0 to 17 normal, 18 to 21 mild, 22 to 29 moderate, 30 to 38 severe, 39 to 42very severe.

Data Analysis and Results

Table 1: Statistical indicators of grade for male and female students in the experimental and control groups

Statistical Index / Group	Control		experiment	
	Frequency	percent	Frequency	percent
Female 1st grade	-	-	-	-
2nd grade	1	20	1	20
3rd grade	1	20	1	20
1st grade highschool	1	20	2	40
2nd grade highschool	1	20	1	20
3rd grade highschool	1	20	-	-
total	5	100	5	100
male 1st grade	-	-	-	-
2nd grade	1	20	2	40
3rd grade	1	20	1	20
1st grade highschool	1	20	1	20
2nd grade high school	1	20	1	20
3rd grade highschool	1	20	-	-
Total	5	100	5	100

Table 2: Statistical indicators of frequency and the percentage of age for female and male students in experimental and control groups

Statistical Index / Group		control		experiment	
		Frequency	percent	Frequency	percent
Female	13 years old	-	0	-	-
	14 years old	2	40	2	40
	15 years old	1	20	2	40
	16 years old	1	20	1	20
	17 years old	1	20	-	-
	total	5	100	5	100
Male	13 years old	1	20	1	20
	14 years old	1	20	2	40
	15 years old	1	20	1	20
	16 years old	1	20	1	20
	17 years old	1	20	-	-
	total	5	100	5	100

Table 3: Statistical indicators of anxiety in the pre-test and post-test experimental and control group

Statistical Index / Group		mean	Standard Deviation	slope	Skewness
Experiment	pre-test	23.4	4.5	0.392	0.463
	post-test	10	5.16	1.45	2.67
Control	pre-test	21.8	3.3	0.739	0.31
	post-test	22	2.49	0.001	0.912

The information in the table shows that the average score of anxiety in a group which had cognitive-behavioral group therapy (control group) in the pre-test, post-test was 23.4 and 10. The mean score of anxiety in the pretest, posttest in a group which did not have the cognitive behavioral therapy (control group) were 21.8 and 22, respectively.

Table 4: Statistical indicators of stress in experimental and control groups in the pre-test and post-test

Statistical Index / Group		mean	Standard Deviation	slope	Skewness
Experiment	pre-test	27	3.1	0.843	2.45
	post-test	13.2	3	1.8	3.4
Control	pre-test	26.6	2.67	0.334	0.85
	post-test	26.7	2.05	0.278	0.78

The information in the table shows that the average score of stress in a group which had cognitive-behavioral group therapy (control group) in the pre-test, post-test was 17 and 13.2.

Table 5: Statistical indicators of anxiety in male and female participants in the cognitive-behavioral therapy

Statistical Index / Group	mean	Standard Deviation	slope	Skewness
Female	15.2	7.89	0.075	2.02
Male	16.8	7	0.748	0.679

The mean score of anxiety in the pretest, posttest in a group which did not have the cognitive behavioral therapy (control group) were 26.6 and 26.7, respectively.

The information in the table shows that the standard deviation and average scores of anxiety in a female group which had cognitive-behavioral group therapy (experiment group) was 15.2 and 7.89. Further, the standard deviation and average score of anxiety in a male group which had cognitive-behavioral group therapy (experiment group) were 16.8 and 7, respectively.

Table 6: Statistical indicators of stress in male and female participants in the cognitive-behavioral therapy

Statistical Index / Group	mean	Standard Deviation	slope	Skewness
Female	21	7.07	0.066	2.34
Male	18.8	7.95	0.145	1.15

The information in the table shows that the standard deviation and average score of stress in a female group which had cognitive-behavioral group therapy (experiment group) was 21 and 7.07. Further the standard deviation and average score of stress in a male group which had cognitive-behavioral group therapy (experiment group) were 18.8 and 7.95, respectively.

Research hypothesis testing

In this section, the research hypotheses are analyzed. The implemented statistical analysis for this purpose is co-variance analysis.

Table 7: Results of F Leuven test to evaluate the assumptions of homogeneity of variance and Kolmogorov-Smirnov

Variable	F	Df1	Df2	P	k	P
Stress	1.26	1	18	0.729	0.563	0.235
anxiety	2.2	1	18	0.147	1.56	0.326

The information in the table shows the F value of the variable is smaller than F value of the table. Thus, the null hypothesis of variance homogeneity is confirmed. Therefore, the test of covariance analysis can be performed. The information contained in table are for the Komologrov-Smirnov test results to assess the normality of distribution. As can be seen the value of this statistic is not significant at any level. The assumption of normal distribution is met.

H1: There is a significant difference between reduction of the anxiety in the adolescents rescued from earthquake in East Azerbaijan in experimental and control groups before and after the intervention of cognitive behavioral therapy group.

Table 8: Sstatistical indicators of anxiety in the experimental and control groups in pre-test and post-test

Statistical Index / Group		mean	Standard deviation	slope	Skewness
Experiment	pre-test	23.4	4.5	0.392	0.463
	post-test	10	5.16	1.45	2.67
Control	pre-test	21.8	3.3	0.739	0.31
	post-test	22	2.49	0.001	0.912

The information in the table shows that the average score of anxiety in a group which had cognitive-behavioral group therapy (experiment group) in the pre-test, post-test was 23.4 and 10.

The mean score of anxiety in the pretest, posttest in a group which did not have the cognitive behavioral therapy (control group) were 21.8 and 22, respectively.

Table 9: Results of covariance analysis

Source	sum of squares	df	mean squares	F	P	effect size	p	Eta
eudcational course	709.8	1	709.8	41.26	0.001	0.708	1	0.897
Error	292.39	18	-	-	-	-	-	
total	6136	20	-	-	-	-	-	

The information in the table indicates that the calculated F value of 41.26 is greater than the F value in the table with the significance of 0.01 and degrees of freedom 1 and 18, respectively. So the null hypothesis that there is no difference is rejected and the hypothesis is accepted. Therefore, with a confidence level of 0.99, it can be claimed that the use of cognitive-behavioral group therapy has a significant impact in reducing anxiety. Results of mean comparison table also shows that anxiety had significantly reduced after the intervention (10) compared to the previous period (23.4).

H2: There is a significant difference between reduction of the acute stress in the adolescents rescued from earthquake in East Azerbaijan in experimental and control groups before and after the intervention of cognitive behavioral therapy group.

Table 10: Statistical indicators of stress in experimental and control groups in the pre-test and post-test

Statistical Index \ Group		mean	Standard Deviation	slope	Skewness
experiment	pre-test	27	3.1	0.843	2.45
	post-test	13.2	3	1.8	3.4
Control	pre-test	26.6	2.67	0.334	0.85
	post-test	26.7	2.05	0.278	0.78

The information in the table shows that the average score of stress in a group which had cognitive-behavioral group therapy (control group) in the pre-test, post-test was 17 and 13.2. The mean score of anxiety in the pretest, posttest in a group which did not have the cognitive behavioral therapy (control group) were 26.6 and 26.7, respectively.

Table 11: Results of covariance analysis

Source	sum of squares	df	mean squares	F	P	effect size	P	Eta
eudcational course	900.23	1	900.23	106.79	0.001	0.863	1	0.909
Error	143.3	18	8.43	-	-	-	-	
total	8964	20	-	-	-	-	-	

The information in the table indicates that the calculated F value of 41.26 is greater than the F value in the table with the significance of 0.01 and degrees of freedom 1 and 18, respectively. So the null hypothesis that there is no difference is rejected and the hypothesis is accepted. Therefore, with a confidence level of 0.99, it can be claimed that the use of cognitive-behavioral group therapy has a significant impact in reducing anxiety. Results of mean comparison table also shows that stress had significantly reduced after the intervention (13.2) compared to the previous period (27).

H 3: There is a significant difference between reduction of the anxiety in the male and female adolescents rescued from earthquake in East Azerbaijan in experimental after the intervention of cognitive behavioral therapy group.

Table 12: Statistical indicators of anxiety in male and female participants in the cognitive-behavioral therapy

Statistical Index / Group	mean	Standard Deviation	slope	Skewness
Female	15.2	7.89	0.075	2.02
Male	16.8	7	0.748	0.679

The information in the table shows that the standard deviation and average score of anxiety in a female group which had cognitive-behavioral group therapy (experiment group) was 15.2 and 7.89. Further the standard deviation and average score of anxiety in a male group which had cognitive-behavioral group therapy (experiment group) were 16.8 and 7, respectively.

Table 13: Results of the independent t-test

Variable	F	P	T	DF	P
anxiety	1.15	0.296	0.479	18	0.638

The information contained in the tables is related to the the independent t test results for review and comparison of the mean anxiety in male and female participants. As can be seen, the calculated value of 0.479 t is not significant at any level. So the anxiety there was no significant difference between the anxiety of the girls and boys who had cognitive behavioral group therapy. The mean comparison showed that there was no significant difference in the mean level of anxiety among girls (15.2) and the level of anxiety of boys (16.8).

H4: There is a significant difference between reduction of the acute stress in the male and female adolescents rescued from earthquake in East Azerbaijan in experimental and control groups before and after the intervention of cognitive behavioral therapy group

Table 14: Statistical indicators of stress in male and female participants in the cognitive-behavioral therapy

Statistical Index / Group	mean	Standard Deviation	slope	Skewness
Female	21	7.07	0.066	2.34
Male	18.8	7.95	0.145	1.15

The information in the table shows that the standard deviation and average score of stress in a female group which had cognitive-behavioral group therapy (experiment group) was 21 and 7.07. Further the standard deviation and average score of stress in a male group which had cognitive-behavioral group therapy (experiment group) were 18.8 and 7.95, respectively.

Table 15: Results of the independent t-test

Variable	F	P	T	DF	P
Stress	0.03	0.865	0.654	18	0.522

The information contained in the tables is related to the the independent t test results for review and comparison of the mean stress in male and female participants. As can be seen, the calculated value of 0.654t is not significant at any level. So the anxiety there was no significant difference between the stress of the girls and boys who had cognitive behavioral group therapy. The mean comparison showed that there was no significant difference in the mean level of anxiety among girls (21) and the level of anxiety of boys (18.8).

Conclusion

First Hypothesis: there is a significant difference between reduction of the anxiety in the adolescents rescued from earthquake in East Azerbaijan in experimental and control groups before and after the intervention of cognitive behavioral therapy group. Regarding the descriptive analysis, Pre-test anxiety scores in the experimental group and after the treatment of cognitive behavioral group therapy is different.

So that, the mean scores of anxiety in experimental group significantly reduced after performing the treatment. Regarding the inferential analysis, the teenagers who participated in group therapy sessions had a significant reduction of anxiety. And also the mean shows that after intervention of the cognitive behavioral group therapy, anxiety levels were significantly reduced. The above results indicate that cognitive behavioral group therapy for adolescents rescued from earthquake to reduce their anxiety symptoms is effective. It seems that implementation of this procedure as a group; especially between the genders (male / female) create a sense of competition

In doing plenty of homework help increase capacity and reduce anxiety in them.

When disasters such as earthquakes, tsunamis, floods, etc. occurs, survivors have psychological problems such as anxiety, stress, depression, insomnia, post-traumatic stress disorder and if the disorder is not treated and significantly reduced their level of physical and mental health. So some medical interventions such as cognitive behavioral therapy, emotional expression through writing, drama therapy, music therapy and narrative therapy, and can have a significant impact in reducing their anxiety and the level of physical and mental health to bring them to normal levels.

Based on the results mentioned above can be said generally one of the signs of stress on the individual survivors of natural disasters, the anxiety of living conditions and the future .Wrap in a general anxiety may be as painful emotions that hit position of a current or expected risks related to the uncertain object are defined. Thus, according to the nature and effects of natural disasters, long-term cognitive behavioral intervention seems necessary.

The findings of this study are in line with the findings and conclusions of previous researchers and international and national of Herj (2013), Watkins and colleagues (2011), Mackro Dimitris et al (2011), Friedland and colleagues (209), Hamid (2011), Pedram et al. (2010).

Watkins et al (2011) have shown the positive effect of cognitive behavior group therapy on depression, and substance abusers. Macro Dimitris et al (2011) have shown the positive effect of treatment cognitive-behavioral group therapy on anxiety and depression in patients with epilepsy. Friedland and colleagues (2009),during theie research showed that cognitive behavior group therapy in the treatment of depression, anxiety, stress, frustration, and quality of life was superior to usual care. Also,supportive stress management as well as depression and other psychological outcomes than usual care was superior and in the follow-up studies found that cognitive behavior group therapy lasting effects and larger than supportive stress management on depression and other psychological consequences are secondary. The results of this study have shown the positive effect of cognitive behavioral therapy in major depression in cancer patients. Herj (2013) examined the effectiveness of cognitive behavioral therapy in pathological symptoms and everyday memory performance in adolescents with posttraumatic stress disorder, adolescents rescued from earthquake in East Azerbaijan.The results show that cognitive-behavioral therapy in reducing the severity of pathological disorder, post-traumatic stress disorder all had a positive effect.

Hamid (2011) indicated the effectiveness of cognitive behavioral stress management based depression, anxiety and disbelief of women under study.

Pedram et al. (2010), in their study, studied the effectiveness of cognitive behavior group therapy on the treatment of depression, anxiety, and created hope for women with breast cancer limitations.

Dehghani and colleagues (2009), in their study, examined the impact of cognitive-behavioral therapy of anxiety in women with alopecia as positive.

Basaknejad and colleagues (2011) showed that the efficacy of cognitive-behavioral therapy to reduce anxiety in the city of Khorramabad school girls has been positive. According to the results of this study and previous research, it seems that the use of cognitive-behavioral therapy is effective in reducing symptoms of anxiety.

Second Hypothesis: there is a significant difference between reduction of the acute stress in the adolescents rescued from earthquake in East Azerbaijan in experimental and control groups before and after the intervention of cognitive behavioral therapy group. So that, the mean scores stress of experimental group was reduced in post-test after performing the treatment. According to the comprehensive analysis of the effects of cognitive-behavioral therapy, group (adolescent survivors of the earthquake, to reduce the signs and symptoms of stress) is significant.

As a result, cognitive behavior group therapy in adolescent survivors of natural disasters such as earthquakes is effective for reducing stress syndrome research hypothesis is confirmed Shvd.drbyan results showed that when such as natural disasters such as earthquakes, floods, tsunamis happen etc.

One of the remaining effects of these events is that the stress of events involved with the survivors and may for many years these people remain gripped and causes a lot of pain, discomfort and disease to be considered.

Also, given the sensitive nature of the stress period, adolescents in this age group, it is one of the most important issues and psychological concepts that are important in psychopathology and health psychology. A number of other researchers say stress response not only physiological change but behavioral disorder of motor, cognitive, emotional distress and dysfunction are included. Because people show different responses to the same stimuli and the stress should be considered nothing more than a stimulus (Bastani et al., 2010).

Given that adolescents in this study were cognitive behavioral group therapy signs and symptoms of stress through psychological training that they received their control; it appears that events such as the earthquake in the use of cognitive-behavioral therapy along with other psychological interventions is necessity.

The findings of the research findings and results of some international and national researchers such as Shoshtari Wise et al (2008), Early et al. (2012), M. (2009), Bandegi (2011), Nisani and et al. (2011) and Shah Abadi et al (2009).

Hakim Shoshtari et al (2008) found the effectiveness of cognitive behavioral therapy in adolescents' survivors of the earthquake in Bam friends who had symptoms of post-traumatic positive. Early et al. (2012) investigated the effect of cognitive behavioral group interventions on reducing stress in their job, and concluded that there was no significant difference between the two groups. After finishing the program, the stress of the experimental group significantly changed while no change was observed in the control group.

Mansour (2009), in another study, studied the effectiveness of cognitive-behavioral intervention depression and stress and coping strategies among students at the University of Jordan. In this quasi-experimental research methods and sampling was done randomly. Symptoms of depression and stress in both groups were involved, after the intervention during the three tests.

The experimental group reduced symptoms of depression and feelings of stress.

Friedland and colleagues (2009) showed that cognitive behavior group therapy in the treatment of depression, anxiety and stress, disappointment and quality of life was superior to usual care. And supportive stress management as well as depression and other psychological outcomes was superior to usual care and in follow-up studies found that cognitive-behavioral therapy, they had

more lasting effects than the supportive stress management on depression and other secondary psychological consequences.

Hatami (2008), in a study examined the cognitive-behavioral training on stress reduction of life stress relieving on working mothers and found it positive.

NIstani Habib Abadi et al (2011), in their study evaluated the effectiveness of cognitive behavioral stress management group to the perceived stress of women with systemic lupus as positive.

Third hypothesis: there is a significant difference between reduction of the anxiety in the male and female adolescents rescued from earthquake in East Azerbaijan in experimental after the intervention of cognitive behavioral therapy group.

Regarding the descriptive analysis, the anxiety scores had a group of girls who cognitive-behavioral therapy. The anxiety scores of boys who had cognitive-behavioral therapy group, shows that there is no significant difference between the two groups. In terms of inferential statistics, according to independent t test and comparison of averages, there was no significant difference between the anxiety of boys and girls in cognitive-behavioral therapy group.

Therefore, the hypothesis that the difference is significant has been rejected. As the adolescents (girls / boys) participated in the therapy sessions alike, although the boys in tasks which must be performed in the presence of others showed more desire.

The girls were more successful in establishing a relationship with the therapist. The therapist encouraged both groups should be involved in group activities even better would have been forced to learn session is divided into two hours so that in the absence of homework they can do in the presence of the therapist.

It seems that this way of working capacity and has been effective in reducing symptoms of anxiety and their performance in their willingness to do homework can be easily viewed. When the next session of homework and their activities over a week before I ask, they were motivated and did all the things that were done during the week were talking and what about the anxiety and stress that trained, taught to family members. It seems that with the support of family therapy intervention was effective in reducing anxiety in both genderes. So, it can be concluded that cognitive-behavioral therapy is effective in both.

The findings and results of this study from researchers and former research scientist external and internal sectors such as macro Dimitris et al (2011), the positive effect of CBT on anxiety and depression in patients with epilepsy have shown the group. Linden et al (2005) showed that the cognitive-behavioral therapy is the effective way to treat generalized anxiety disorder. Their treatment in 25 treatment sessions were conducted compared to the control group.

Hoby, Donnelly and Justin (2006), the analysis of cognitive behavioral therapy for the treatment of generalized anxiety disorder effectiveness of this method with an effect size 0.68 in 33 study showed.

Pedram et al. (2010) studies the efficacy of cognitive behavior group therapy on anxiety, depression, and created hope in women with breast cancer were positive.

Hashemabadi and colleagues (2009) examined the effectiveness of combining cognitive behavioral group therapy and social skills training, cognitive distortions and avoid the loss of students. And, after review, they concluded that cognitive-behavioral therapy, social skills teaching to be more effectiveness.

Johari Fard (2005) studied the effectiveness of cognitive behavior group therapy, in patients with generalized anxiety, and the results show that cognitive behavior group therapy was effective in reducing anxiety in patients.

Based on the results mentioned above, it can be concluded that cognitive-behavioral therapy reduce anxiety in both genderes (male / female), has a positive effect. Therefore, with regard to the nature of natural disasters, such as earthquakes cognitive-behavioral therapy in reducing anxiety stemming from the events seem necessary.

Fourth Hypothesis: there is a significant difference between reduction of the acute stress in the male and female adolescents rescued from earthquake in East Azerbaijan in experimental and control groups before and after the intervention of cognitive behavioral therapy group.

Regarding the descriptive analysis, the anxiety scores had a group of girls who cognitive-behavioral therapy. The stress scores of boys who had cognitive-behavioral therapy group, shows that there is no significant difference between the two groups. In terms of inferential statistics, according to independent t test and comparison of averages, there was no significant difference between the stress of boys and girls in cognitive-behavioral therapy group.

Therefore, the hypothesis that the difference is significant has been rejected. The results of this study were in line with the results of previous international and national researchers. Early et al. (2012) in a study investigated the effect of cognitive behavioral group interventions, reduce stress in their job. There was no significant difference between the two groups. After finishing the program, stress the experimental group was significantly changed. But change was observed in the control group.

Friedland and colleagues (2009) showed that cognitive behavior group therapy in the treatment of depression, anxiety and stress, disappointment and quality of life was superior to usual care. And, supportive stress management as well as depression and other psychological outcomes was superior to usual care and in follow-up studies found that cognitive-behavioral therapy, they had more lasting effects than the supportive stress management on depression and other secondary psychological consequences.

Consortium CATS and Hugh Wood (2007) studied the effectiveness of cognitive behavioral therapy in children and adolescents affected by the events of 11 September with post-traumatic stress disorder were randomly selected, and in two experimental and control groups, respectively. The results showed that children and adolescents with severe injuries suffered from severe family problems, but by receiving cognitive behavioral therapy showed significant improvement.

Neshat Doust and colleagues (2009) evaluated the cognitive behavior group therapy positive in improving the quality of life in people with alopecia areata and stress management to medical treatment.

Rezai and colleagues (1391) examined the impact of stress management skills in mental health to cognitive-behavior of male prisoners began. The results of this study showed that stress management skills of cognitive behavioral group therapy, the patients had an increase in mental health.

Rezai and colleagues (2008) examined the effectiveness of cognitive behavioral interventions, manage stress on quality of life in women with asthma were positive. The results of this study and previous research findings suggest that cognitive-behavioral therapy in reducing stress for both genderes (male and female), there were significant effects. These treatment strategies for coping with stress, especially in natural disasters such as earthquakes warrant stems.

The results showed that cognitive behavioral group training in reducing anxiety and stress for teenagers (participating in therapy sessions), the Azerbaijani quake-hit areas have been effective.
In other words, our study suggests that this method can be used in addition to other natural disasters such as earthquakes, floods, tsunamis, etc.Also, in injuries such as genderual assault, injury treatment, domestic violence, this method can be used in the treatment.

The result of this study, the researchers show earlier this therapy can be applied in both genderes. And in this study the impact of both genders from the treatment showed no significant difference. As well as cognitive behavioral group training among the subjects alters coping with stress and anxiety. So, this method has led to the increased use of problem-focused coping strategies, and the other participants in the use of emotion-focused coping strategies to decrease.

Many researches in the field of health psychology have had consistent use of coping strategies such as cognitive behavioral theory-based stress management and cognitive-behavioral techniques. In the face of stressful situations and negative emotions as an important factor in shaping people's physical and mental health have shown (Hamid, 2011) in regard to what was discussed briefly in this study. Cognitive-behavioral models are used to explain the etiology of a variety of disorders such as anxiety and depression which have some features in common.

The first assumption is that people are anxious in response to certain stimuli.

Because they are more dangerous drivers than what they are, interpreted.

Second, unrealistic interpretations because they continued that patients avoid frightening events are resorting to a series of safety behaviors. This change negative beliefs and behaviors of the safety barrier in throughput.

Finally, many signs of anxiety and anxiety disorders sources to understand the risk and resulted in a good situation for creating a series of vicious cycle. This vicious cycle will play a major role in the continuing anxiety disorder. Therefore, it can be concluded that for the treatment of social anxiety, the efficacy of cognitive-behavioral treatments have been approved and can be used between intervention of cognitive behavioral therapy as an empirical method approved therapy.

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