

The effect of cognitive behavior therapies on the tendency of women suicides suffering mood disorders based on frustration and depression indicators

Abstract

Background: Depression disorders occur in all age ranges. However, the prevalence of this disorder is twice in women than men. Most women with a tendency to suicide or suicide attempts (successful or unsuccessful) they are suffering from major depression. Given the increasing mood disorders during the past three decades, evidences suggest that the cognitive-behavioral treatments are the most effective.

Methods: This was a semi-experimental study, that was examined the effects of cognitive behavior therapies in woman with mood disorder that have a tendency to suicide. The subjects in this study were 30 women in Imam Reza (SA) hospital in Mashhad with mood disorders who were selected by available sampling method. All of the subjects completed the Kazdian disappointment questionnaire and the (D) section of the mental health questionnaire. They were randomly divided into control and experimental groups. Next, the experimental group received 10 sessions of cognitive behavioral therapy sessions and post-test was performed on all of them. Covariance and independent T test were used in order to analyze the obtained data.

Results: The obtained data showed a significant difference between the mean scores of the two groups after the intervention and based on T test value (0.745) at the significance level of Sig=0.001 in terms of H scale. Given the significant differences between the experimental and control groups after the implementation of therapeutic interventions and the control of other variables, ANCOVA was used. The obtained F value (134.242) at the significance level of Sig=0.001 confirmed the hypothesis that cognitive behavioral therapies in women would reduce the frustration level. The mean difference between control and experimental groups after the interventions based on T test value (0.762) at the significance level of Sig=0.001 indicated that there was a significant difference between the two groups in terms of the D scale. By using the covariance test at the significance level of Sig (0.001), the obtained F value was equal to 315.154, which confirmed the investigated hypothesis that cognitive behavioral therapies would reduce the depression rate in women.

Conclusion: The results showed that participating in psychotherapy sessions was significantly reduced the levels of frustration and suicidal tendencies in women.

Keywords: cognitive behavior, depression, frustration, tendency to suicide

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Abbreviations: GHQ, general health questionnaire; CBT, cognitive behaviour therapy

Background

The burden of considerable emotional, economical and social depression disorders on the one hand for patients, family and community, and on the other hand, the estimated annual incidence of 2.9 to 12.6 percent has kept this disorder in the general population by considering the lifelong risk about 17-19 percent.

Depression is one of the main axes of researches and in addition, suicide has been considered as the most tragic consequences of depression with a growing trend in many countries. Suicide has always been the most notable item in the area of mental health issues. Although, major depressive disorder has been the most important risk factor for suicide and increases the risk up to 20 percent, but many severely depressed people have suicidal thoughts and behavior. Various features including feelings of frustration, impulsivity and recurrent drug use have been associated with the increased risk of suicide.¹ Response styles theory is indicated that the involvement of

people in passive and repeating thinking would be the persistence of symptoms. Patients efforts would form mental ruminations and not only do not diminish the signs of the burden, but also would trigger them.² On the other hand, suicide risk is often increased in such cases. One-seventh of hospitalized patients for major depressive disorder and bipolar disorder have lost their lives by suicide.³ This rate would increase by psychological distress and depressive symptoms at the same time. Cognitive and behavioral therapies offer strategies for cognitive restructuring, rejecting irrational beliefs, learning interpersonal skills and actively change the people mental world.

Concerning primary assumption of cognitive-behavioral models, the thoughts and perceptions of patients would shape their emotions and behaviors. Ellis⁴ believed that most of the people's problems are related to distorted perceptions and irrational thoughts. The strategy to overcome those problems is to have a better way of thinking and obtaining their perceptions. Anxiety, depression, grief, sadness, anger and fear are all due to the mentality and individual beliefs towards the world and others. He called these beliefs as irrational beliefs. These beliefs provide suicidal ideation in the background. He indicated

that behavior could change human cognition and emotion. In order to develop appropriate therapies, many studies have been carried out about cognition and cognitive characteristics. People with depression and environmental risk factors, in most of these studies, it has been found that these individuals have demographic characteristics such as cognitive ossification, lack of problem solving skills, negative attribution style, self-criticism and having negative comments about themselves. These factors could be risk factors for suicide. Hence, cognitive-behavioral models are very useful to correct beliefs, health-related behaviors and elimination of risk factors.⁵ Various studies showed that appropriate therapeutic interventions could reduce the suicide risk of individuals to very high levels. Nevertheless, little researches have been conducted about appropriate and modern treatments with a controlled framework in order to reduce the risk of suicide. Therefore, this study was conducted with the purpose of considering the effect of cognitive behavioral therapies in reducing suicidal tendencies and in addition, a preventive cognitive therapy in terms of suicide. Therefore, the main issue in this study was to investigate the training of cognitive-behavioral techniques, Alice emotional and rational therapies and Seligman optimism and rational therapies for woman's cognitive assessment with suicidal tendencies and the ability to change them to create necessary thought to deal with the issues with more effective trails.

Materials and methods

Study Design

This study was designed as a quasi-experimental pre-test and post-test research with the control group, which was conducted after the approval and licensing the study groups authorities. The purpose of this study was to investigate the influence of cognitive and behavioral programs in the amount of depression and suicidal tendencies of women with mood disorders in Mashhad, Imam Reza (AS) Hospital in 2013.

Participants and Procedures

The population in this study was included the women suffering from mood disorders referred to Imam Reza (AS) in Mashhad. Among them, 30 women were selected by using the available sampling method. In this method, those have been studied that besides having a special feature were available. In this study, at first all of the subjects in this study completed the questionnaires of Kazdian frustration and section (D) of the General Health Questionnaire, which tested the suicidal tendencies and the depression. Then randomly, they were divided into two groups of 15 as experimental and control groups. At a later stage, the groups were examined and underwent 10 sessions of cognitive therapy sessions each one for 90 minutes. Post-tests were conducted on all of them too.

Measurements

In this study, it was used the General Health Questionnaire (GHQ) and Kazdian frustration questionnaire with pre-test and post-test on all subjects. The experimental group underwent 10 sessions of cognitive-behavioral approach, which was a combination of Ellis's rational-emotional therapy and Seligman optimism treatment.

General Health Questionnaire (GHQ): It is a 28-item form to determine the probability of a mental disorder in an individual.

This is a four-scale questionnaire that:

- A. About the feeling of the individual towards his/her health status, fatigue and physical symptoms,

- B. With anxiety and insomnia,

- C. To assess the extent of ability in dealing with the professional demands of a career and everyday life issues and feelings about how to comply with current life situations,

- D. Associated with depression and suicide. At any scale, total score more than 12, needed serious intervention and scores greater than 45 need specialized psychological intervention.

Kazdian frustration questionnaire: It is a 17 item form, which the subjects indicate their opinion after reading each sentence with the letters of (T) or (F) in front of them. The maximum score in representing disappointment is 17. The questionnaire has been made based on the Beck frustration scale for the adults.

Content of the cognitive behavioral treatment protocol

- i. First session: Orientation session to establish relationship and familiarize the subjects with a series of psychological concepts such as anxiety, low mood, depression and their definitions in order to recognize these feelings.
- ii. Second session: Understanding of depression, its consequences and familiarity with cognitive theories. In this session, the subjects were taught about the concept of depression, effect of understanding the moods, active management of depression, relaxation techniques and stress management.
- iii. Third session: Training some of cognitive skills and familiarity with the concept of ABC
- iv. Fourth session: Cognitive focus and practical application of ABC technique. In this session, participants would learn to distinguish beliefs, emotional withdrawal and their morbid thoughts in relation to others by using the ABC technique and applying technology to inner dialogue.
- v. Fifth session: Making ability for the measurement of optimism and explanatory style due to three characteristics of continuity, being inclusive and personalization.
- vi. Sixth session: Evaluating and applying the techniques
- vii. Seventh session: Learning problem solving
- viii. Eighth session: Application of problem-solving techniques
- ix. Ninth session: The overall assessment of therapist about the overall status of the subjects in applying the lessons
- x. Tenth session: Running the post-test

Internal consistency of the scale

A. General health questionnaire: The validity of this questionnaire by Palahang⁶ in checking the epidemiology of mental disorders in Kashan by using the retest on 80 people estimated equal to 0.91.⁶

B. Kazdian frustration questionnaire: Kazdian et al.,⁷ reported the reliability coefficient of this test by using retest 0.52 and an Alpha coefficient of 0.97.⁷

Statistical analysis

In this study, statistical calculations were performed by using SPSS statistical software version 18.0. In order to compare the mean scores of two groups, the independent T-test was used to investigate the difference between experimental and control groups. Due to

the interference of experimental procedure with other variables, covariance method was used.

Ethics

This study was conducted with the approval of the Institute of Psychiatry of Imam Reza (AS) Hospital in Mashhad. Due to the risk of subject's mood disorders, it tried to obtain informed consent from the participants in order to participate in this study with the consent and approval of one of the family members.

Results

Respondents characteristics

In this study, 30 women with mood disorders ranging in age from 25 to 35 years old in Imam Reza (AS) in Mashhad underwent cognitive behavioral therapy for 10 sessions. All subjects in this study have had a period of 1-2 years drug treatment. Seven of these subjects were hospitalized for three months in this hospital. The demographic characteristics of the subjects in this study are shown in Table 1.

Table 1 Demographic characteristics of women with mood disorders participated in the study (n=30)

Specifications	Frequency	Percentage
Age Group (years)		
25 to 28 years	11	36.66
29 to 31 years	10	33.33
32 to 35 years	9	30
The Mean±SD	26.5±2.4	
Range	25-35	
Gender Status		
Female	30	100
Level of Education		
Illiterate or elementary	4	13.33
Secondary school	8	26.66
Diploma	13	43.33
Higher than diploma	5	16.66
Marital Status Before Disease		
Single	19	66.33
Married	11	33.66
Marital Status After Disease		
Single	17	55.66
Married	8	26.66
Divorced	5	16.66
Economic Situation of the Family		
Low	15	50
Average	11	36.66
High	4	13.33

Results of statistical analysis

Based on Table 2, the mean difference between experimental and control groups based on T-test with the value of 0.425 at the significance level of (Sig=0.657), suggested that there was no significant difference between the two groups in terms of H scale. Thus, there was a basic requirement to run an experiment. For the lack of differences between control and experimental groups, the observed difference between means of these two groups after the intervention, based on T-test was 0.745 at the significance level of (Sig=0.001). It was suggested that there was a significant difference between the two groups in terms of H scale. Thus, given the significant difference in experimental and control groups after the implementation of the interventions, ANCOVA was used to explore these differences due to experimenter intervention or other control variables.

According to Table 3, the mean scores showed that the experimental group, receiving cognitive-behavioral interventions with the mean of 4.1241 compared with the control group without receiving these interventions with the mean of 8.1548, reported lower levels of frustration. According to Sig=0.001 and obtained value of F (134.242), the research hypothesis was confirmed decline in women's frustration by cognitive behavioral therapies.

Due to Table 4, the observed mean difference between experimental and control groups based on the T-test value of 0.328 at the significance level of (Sig=0.762), suggested that there was no significant differences between the two groups in terms of D scale D. Thus, there was a basic requirement to run the test of no differences between control and experimental groups. The observed mean difference between control and experimental groups after the intervention based on T-test was 0.762 at the significance level of (Sig=0.001). It was suggested that there was a significant difference between the two groups in terms of the D scale. Thus, given the significant difference in experimental and control groups after the implementation of the interventions, ANCOVA was used to explore these differences due to experimenter intervention or other control variables.

According to Table 5, the mean scores showed that the experimental group, which received cognitive-behavioral interventions, with the mean of 10.7347 compared with the control group, which received no interventions, with the mean of 16.845 reported lower rates of depression. According to (Sig=0.001), the value of F was 315.154. Therefore, the research hypothesis was confirmed based on reducing the rate of depression in women by cognitive behavioral therapies.

Discussion

CBT was used in this study, or in other words the combination of Seligman optimism method and the method of dysfunctional thoughts treatment of to increase effectiveness and its usage in bipolar disorder because of these interventions. A significant decrease was reported regarding the amount of frustration, depression and consequently the suicide thoughts. The conclusions were that cognitive behavioral therapy has reduced significantly the frustration of women. In this regard, in the study conducted by Kolves et al.,⁸ it was investigated the difference in hospitalized patient's beliefs, suicidal and non-suicidal attitudes. They concluded that suicidal patients have been more disappointed and showed more evidences based on different approaches and irrational beliefs about themselves.⁸ Beck and colleagues also demonstrated that cognitive therapy compared with medical therapy has a greater impact on improving the frustration and self-depressed patients.⁹ It has been found in other studies that people with suicidal thoughts had further bipolar thoughts and their documentary style was in the types of exterior, overall and fixed. They had problems and were more disappointed in problem solving skills.^{10,11} Beck et al.,⁹ believed that the frustration has been the strongest predictors of suicide. He typically indicated that the concept of frustration would continue forever and the current problems would remain without any expectation of positive results. Thus, the frustration factor would be the main desire to commit suicide. He believed that the concern about suicide kept the individual situation perception would be frustrated and untenable. The individual finally would come to this belief that suicide could be the only solution for solving seemingly unsolvable problems.

Since that frustration is an important clue, which the therapist should be considered in assessing suicide. This factor can be adjusted with psychological interventions. Reducing frustration in individuals

could help to reduce suicidal behavior. In this study, psychological intervention altered the diagnosis of the patients by decreasing the frustration in order to enable their use of behavioral and cognitive techniques to find solutions for the problems.¹²

Table 2 Evaluation of significant differences between the control and experimental groups before and after intervention in H Scale

Testing Stages	Variable	Frequency	Mean	SD	T	Significant Level
Before the Intervention	Control	15	8.5214	114.5698	0.425	0.657
	Experimental	15	8.9625	104.2547		
After the Intervention	Control	15	8.3285	201.2458	0.745	0.001
	Experimental	15	4.3261	203.2153		

Table 3 Evaluation of significant differences between control and experimental groups after the H-scale interventions

Variable	Frequency	Mean	SD	DF	F	Significant level
Control	15	8.1547	0.436	1	134.242	0.001
Experimental	15	4.1241	0.436			

Table 4 Evaluation of significant differences between control and experimental groups before and after treatment on a D scale

Testing Stages	Variable	Frequency	Mean	SD	T	Significant level
Before the Intervention	Control	15	16.5311	2.2359	0.328	0.741
	Experimental	15	17.2525	3.8651		
After the Intervention	Control	15	16.4257	2.245	0.762	0.001
	Experimental	15	10.3263	2.2875		

Table 5 Evaluation of significant differences between control and experimental groups after the intervention on a D scale

Variable	Frequency	Mean	SD	DF	F	Significant level
Control	15	16.854	0.29	1	315.154	0.001
Experimental	15	10.7347	0.229			

The results of the present study also indicated that cognitive behavioral therapies reduced the levels of depression, which was corresponded to the research of Taghipour.¹³ His research has shown that the relationship of group counseling with rational manner in decreasing the depression in the experimental group.¹³ Leicester¹⁴ studies also showed that the irrational thoughts are related and oriented with depression and suicidal ideation.¹⁴ The findings can be explained in such a way that depression could lead to more trends to suicide.

Psychological, social and behavioral factors and in particular the belief system of the patient, the patient attitudes about depression and harnessing are associated with depression and its persistence more than physiological and physical factors in this group of patients. Inutility thoughts and cognitive distortions and lack of control over the situation are the causes of helplessness and depression in these patients. Since the goal of cognitive behavioral therapies is to help patients to achieve a reasonable thought, finding and understanding of their ability. These cases would have useful roles in treating the depression. By assisting with cognitive behavioral therapies, they would target many cognitive distortions, which could adjust the overall goals. In explanation for these findings, it can be noted to the effect of behavioral activation on the reduction of depression. Behavioral activation as the essence of CBT affected by mental trainings teaches the patients to notice to the components of their beneficial actions and give value to it. Without hesitation, negative symptoms of depression gradually fade away by increasing useful behaviors of the patient and improve his/her attitude. Thus, it can be argued that due to negative emotions and attitudes could be the driver for a depressed mood along with the strengthening of active behavior and effective treatment of depressed patients with the aim of increasing the self-efficacy, which would ultimately result to exchange an unhappy mood to a balanced one. Based on the obtained results, it is possible to mention several reasons. One major reason is the beneficial effect of the group treatment in comparing with individual therapy. Group

therapy helps people to learn effective social skills. After that, they can try their doctrines to the other members of the group.¹⁵ They will comfortable and confident in observing similar or more severe problems of the others.¹⁶ Yalom et al.,¹⁷ in relation to the effect of group psychotherapy in psychiatric patients has been reported that the patients with suppressed emotions, day by day, become strangers to their own existence and allow less to gain new experiences in their minds. As a result, pessimistic thoughts, dismal situation, being tired of life, frustration, loneliness, feeling and suicidal thoughts arise for the individual. Participation in the group psychotherapy sessions with regard to their feelings about death in the group let the human to live with new ideas and other approaches.¹⁷ Other factors are techniques of the challenges and method of changing the beliefs, which effectively is used to reduce the depression.¹⁸ Because the cognitive approach, acknowledge that stressful conditions such as depression and anxiety by advantageously thought and extreme persistence in a distorted way can intensify data processing. This approach is based on the belief that people selectively notice to the consistent data with previous beliefs. Such process is correct about reminding, because they selectively recall things, which are consistent with previous data.¹⁹

Conclusion

According to the obtained findings, it could be said that increasing the cognitive factor in behavioral therapy can increase the efficacy of treatment, in particular, reducing frustration and subsequently reduce suicidal tendencies. The noticeable point is the relative effectiveness of intervention in reducing the symptoms in people with mood disorders by the following reasons:

- The small number of subjects
- Considerable low number of sessions and compression of the sessions

- c. Because changing the cognition requires more treatment sessions
- d. Rehearsing and practicing

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Conflicts of interest

Author declares there are no conflicts of interest.

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