EFFICACY OF COMPARISON BETWEEN COGNITIVE BEHAVIORAL THERAPY, PHARMACOTHERAPY AND COMBINATION OF CBT AND PHARMACOTHERAPY TO DECREASE THE SYMPTOM OF DEPRESSION IN IRANIAN WOMEN

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ABSTRACT
The main goal of this research was to compare cognitive behavior therapy and pharmacotherapy for the treatment of depression in Iranian women. The research followed pre and post test design and included three groups for intervention and one control group: 1- Cognitive Behavioral Therapy (CBT) 2- Pharmacotherapy (medication only) 3- Combination of CBT and pharmacotherapy 4-Control group (neither CBT nor medication) Measures: 1. Structural Clinical Interview for criteria of DSM-IV-TR 2. The Beck Depression Inventory. Analyses: pre and post test scores were analyzed by applying ANCOVA for four groups. Significant results were further analyzed by post-hoc mean comparisons using Tuckey’s test. Findings: The main findings of the present study were that cognitive behavior therapy alone, pharmacotherapy alone and combined cognitive behavior therapy with pharmacotherapy treatment methods of intervention are effective in reducing the depressive symptoms of depression disorder in Iranian women but combined therapy was more effective than to cognitive behavior therapy and pharmacotherapy alone.

Keywords: Depression, Pharmacotherapy, Cognitive Behavioral Therapy

INTRODUCTION
Psychological disorder is limited to individuals with explicit depressive mood, irritability mood and elevated mood. According to DSM-IV-TR, psychological disorders include seven specific disorders: major depressive disorder, cyclothymics disorder, psychotic disorder due to general clinical condition, psychotic disorder resulted from some factors, dysthymic disorder, bipolar I disorder, and bipolar II disorders. The word “affection” is also used in this category of disorders. DSM-IV-TR calls this section as “affective disorder”, though mood and affection are usually used interchangeably, medical glossaries and DSM have tried to distinguish them from each other. DSM-IV-TR glossary defines “affection” as an abstract experience or expression of emotion; on the contrary, it defines mood state as a persistent ant pervasive emotional state.
In other words, affection refers to fluctuations in emotional states. Major depressive disorder and dysthymic disorder are both two sides of an overall depressive disorder. Some people dealing with dysthymic disorder explain it as a continuation of major depressive disorder. Moreover, just a minority of people suffering from major depressive disorder or dysthymic disorder develop to manic or hippocramic disorder guaranteeing a change of direction toward bipolar I disorder, bipolar II disorder or cyclothymics disorder (Michael et al., 2004).
Dysthymic disorder may seem mild, however, its persistent depressive signs and its functioning could be even greater than episodic major depressions (Hole-Denoma et al., 2006; Klein et al., 2000). Dysthymic disorder is distinguished from major depressive disorder by the fact that patients always complain about a persistent depression. This kind of disorder begins at early ages, it happens for the patients before they turn to 20. In 1991, Bernard and Teasdale presented a model titled “interactive cognitive subsystems” (ICS). Based on this model, they maintain that mind is able to receive and process data. Their model is about individual’s vulnerability in facing depression. This theory is about one of the mind states stopping other states of mind. Two important states of mind are: the present state of mind and the function of mind.
The present state of mind is known as the simulative state. This state is activated when there is a difference between present functions of mind and functions in accordance with mind. The second state of mind is the function of mind. This state of mind receives and processes the present functions, it has nothing to do with the concentration on receiving specific purposes. Therefore, no pressure should change the function.

According to the model of ICS, mental health is related to the individual’s ability to separate mental states from each other or shift the mental states. These individuals, therefore, have suitable mental moods. ICS model contends that the present state of mind leads to all affective and emotional changes, therefore, to avoid another depression, psychotherapy method could be used to improve the health of this state. According to Teasdale and Bernard results making MBCT could improve the functional state of mind (Hamidpour and Colleagues, 2009).

In comparison with Beck method, the effectiveness of psychological therapy method for dysthymic disorder and also the effectiveness of Teasdale method are more. The researchers found that pharmacotherapy and CBT or their combination together are more effective in decreasing depressive disorders. However, the combined therapy is more influential in decreasing depressive disorders. Moreover, there are other researches confirming this claim, here some of these researches are mentioned: Bowers (1990), Conte and Colleagues (1986), Larry and Feldman (1998), Michael and Colleagues (2005), and Zindel and Colleagues (2001).

Kannappan and LakshmiBai Vinayaka (2007) did their researches on depressed female patients having symptoms such as: body pain, loneliness, insomnia, in appetence, hopelessness, heartthrob, and lack of confidence, these symptoms were persistent for more than two years in the patients. Leykin and Colleagues (2007) maintained that through application of pharmacotherapy in patients suffering from chronic depression, depression severity may decrease.

MATERIALS AND METHODS

Methodology

In recent researches, pre method and post method were used. The purpose of this research is to compare the effects of different therapeutic methods in curing Iranian women’s disorders. In other words, the study of effect of CBT and pharmacotherapy on treatment of Iranian women’s disorders was done. For this purpose, four groups were selected. One sample group including 120 Iranian female patients was chosen from psychological patients of Boushehr psychiatric section of hospitals and clinics. There were four groups and each of them included 30 patients. One group was related to CBT, the other group for pharmacotherapy, the other for CBT and pharmacotherapy, and control groups. Distribution of groups was based on the patients’ age, educational level and marital status reported in list 3-1. According to the list, patients from 22 to 25 years old had the highest level equal to 42.5 percent and patients from 30 to 35 had the lowest level equal to 6.7, women with diploma certificate had the highest level (45 percent), and women with bachelor degree had the lowest level (26.7 percent), 59.2 percent of the patients were married and 48.2 percent of them were single. According to purposes of the research, the below assumptions were codified.

1. After intervention of cognitive behavioral therapy (CBT), there was a huge decrease in women’s depression symptoms.
2. After pharmacotherapy, there was a huge decrease in women’s depression symptoms.
3. After CBT and pharmacotherapy, there was a huge decrease in women’s depression symptoms.
4. In control groups without applying CBT or pharmacotherapy, there was not decrease in women’s depression symptoms.
5. In comparison with pharmacotherapy, CBT would be more effective in decreasing women’s depression symptoms.
6. In comparison with CBT, CBT and pharmacotherapy would be more effective in decreasing women’s depression symptoms.

Below tools and methods are used in the present paper:
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1. Structural clinical interview for the criterion DSM-IV-TR: according to clinical interview for the criterion DSM-IV-TR, patients were selected from hospitals and they had cognitive and experimental interviews.
2. The mentioned depression list.
3. BDI including 21 reported issued by individuals.

Recognition of neurotic disorders among women

In order to recognize women suffering from neurotic disorders, information was classified based on descriptive statistics. In this research, information was classified based on analysis of covariance (ANCOVA) and post-hoc test (Tukey’s Test).

At first, the relation between variables was clarified and classified based on linear co-variance. The most prominent assumption to analyze linear covariance was the relation of dependent variables; therefore, this assumption was done via correlative variables.

Main Body

Cognitive criteria of DSM-IV-TR for dysthymic disorder

a. A depressive manner lasting all day long for at least two continuous years were shown by reports or others’ observations.
Tip: the presence of two or more symptoms mentioned here, have been observed in these patients.
1. In appetence or overeating
2. Insomnia or over sleeping
3. Fatigue or loss of energy
4. Low self-esteem
5. Low concentration or hardship in making decisions
6. Hopelessness
b. During the two years of suffering from this disorder (one year for children), the patient is never free from these symptoms for more than two months.
c. During the first two years, there are no symptoms of major depression.
d. The state of mania or hypomania has never existed in this period and the criteria of depressive disorder have never been reported either.
e. In this period, the presence of some disorders such as schizophrenia or psychedelic disorder is not general.
f. These symptoms lead to noticeable clinical affliction or disorders in social, professional or functional realms.

Women suffering from the disorder are recognized in the pre-test condition with the usage of represented depression list and other criteria of depressive disorder recognition; they made the highest mean score among all groups.

CBT group (mean 53.96 and standard deviation 2.12), pharmacotherapy group (mean 53/53 and standard deviation 1.73), combination of CBT and pharmacotherapy group (mean 52.80 and standard deviation 1.62) and finally control group (mean 52.3 and standard deviation 2.47).

After recognizing women suffering from neurotic disorders, the below interventions are administrated. CBT intervention, pharmacotherapy intervention, and finally a combination of CBT and pharmacotherapy intervention.

According to the primary list, after doing the test on similar groups, the administration of these therapies was postponed for 2 months. These groups in the lowest mean, in post-test condition had the below condition: CBT (mean 19.86 and standard deviation 3.69), pharmacotherapy (mean 23.30 and standard deviation 3.56) a combination of CBT and pharmacotherapy (mean 11.90 and standard deviation 1.93) and control group in pre-test condition (mean 52.3 and standard deviation 2.47) and post-test condition (mean 51.33 and standard deviation 2.21), there was no change in the condition of control group before doing the test and after doing the test. According to table 1, mean and standard deviation of pre- and post –test condition have been specified based on CBT, pharmacotherapy, a combination of CBT and pharmacotherapy and control group.
Table 1: Mean SD’s of Pre-Test and Post-Tests for the Four Groups (N=30)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Conditions</th>
<th>Mean (Standard Deviation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBT</td>
<td>Pre – test</td>
<td>53.96(2.12)</td>
</tr>
<tr>
<td>CBT</td>
<td>Post- test</td>
<td>19.86(3.69)</td>
</tr>
<tr>
<td>Pharmacotherapy</td>
<td>Pre – test</td>
<td>53.53(1.73)</td>
</tr>
<tr>
<td>Pharmacotherapy</td>
<td>Post- test</td>
<td>23.30(3.56)</td>
</tr>
<tr>
<td>CBT and Pharmacotherapy</td>
<td>Pre – test</td>
<td>52.80(1.62)</td>
</tr>
<tr>
<td>CBT and Pharmacotherapy</td>
<td>Post- test</td>
<td>11.90(1.93)</td>
</tr>
<tr>
<td>Control</td>
<td>Pre – test</td>
<td>52.3(2.47)</td>
</tr>
<tr>
<td>Control</td>
<td>Post- test</td>
<td>51.33(2/21)</td>
</tr>
</tbody>
</table>

Based on the gained results from (table 1) there are noticeable differences between control groups and under test groups. The difference is between the mean of CBT group post-test condition (19/86) and control group post- test condition (51/33)

In this research, before comparing the four groups with one another, drugs which were analyzed based on Levene’s test, determines the similarity of variables.

Table 2: Levene’s Test for Estimating Equality of Variances of Dependent Variables before and after the Test (No .120)

<table>
<thead>
<tr>
<th>Groups</th>
<th>Dependent Variable</th>
<th>F</th>
<th>Df1</th>
<th>Df2</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBT</td>
<td>(depression)</td>
<td>2.03</td>
<td>3</td>
<td>116</td>
<td>0.11</td>
</tr>
<tr>
<td>Pharmacotherapy</td>
<td>Dysthymia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results show that the curve of equality of variances of dependent variables is determined. Therefore, there is no difference among the dependent variable variance of the four groups; consequently, the curve of equality of variance is determined.

Table 3: Summary Results of Turkey’s Test for Therapeutic Intervention among Groups (N=30)

<table>
<thead>
<tr>
<th>Groups</th>
<th>CBT</th>
<th>Pharmacotherapy</th>
<th>CBT and Pharmacotherapy</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBT</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Pharmacotherapy</td>
<td>3.44</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>CBT and Pharmacotherapy</td>
<td>7.96</td>
<td>11.37</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>31.47</td>
<td>28.08</td>
<td>39.45</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 3 shows the results of turkey’s test for the therapeutic intervention of therapeutic methods among groups (No. 30)

The comparison of control groups and pharmacotherapy group

To show the difference between two different groups, figure 1 shows noticeable decrease in the post- test condition of pharmacotherapy group with the mean (23.30) in comparison with control group with the mean (51.33). This figure shows that the mean score of dysthymic disorder in women has hugely decreased; it also shows the effectiveness of this therapeutic method in comparison with control method.
In comparison with control group post-test condition (mean 51/33), figure 2 shows the noticeable decrease in the post-test condition of the combined group (mean 11/90). This figure clarifies the fact that dysthymia has had a huge decrease in women of the combined (CBT and pharmacotherapy) group. It also shows the more effectiveness of this therapeutic method in comparison with the control group.

The comparison of CBT group and pharmacotherapy group
Figure 3 shows a higher decrease in post-test condition of CBT group (mean 19.86), in comparison with pharmacotherapy group (mean 23.30). This figure demonstrates the fact that dysthymia in women of CBT group has more decrease than women in pharmacotherapy group. Then, it reveals the more effectiveness of CBT therapy in comparison with Pharmacotherapy.
RESULTS AND DISCUSSION
Cognitive behavioral therapy is one of branches of psychotherapy which has an important role in treating women’s dysthymia. Pharmacotherapy is also used in treating women’s dysthymia and finally a combination of both mentioned therapies is an effective method in decreasing the symptoms and states of depression in women. The resent studies have been done for these reasons:

a. Recognizing samples of Iranian women affected by depressive disorders.
b. The study and analysis of effectiveness of CBT, pharmacotherapy, a combination of CBT and pharmacotherapy in Iranian women suffering from dysthymic disorders.

c. Comparing the mean scores of depression in four groups (CBT, pharmacotherapy, CBT and pharmacotherapy, and control group) in pre-test and post-test conditions.

The effects of therapeutic methods on depression symptoms

The findings approve that CBT is effective in decreasing depression in women, these findings are in accordance with the results of a research reported by Sadahi et al., (2009) declaring that CBT is a very effective therapeutic methods whether it is used by itself or in combination with pharmacotherapy. The results of the present research shows that CBT and pharmacotherapy and also a combination of the two therapies are effective in decreasing dysthymic symptoms in women. Moreover, the present research declares that combination of CBT and pharmacotherapy is more effective in decreasing and treating Iranian women’s dysthymic disorder and depression symptoms than either CBT or pharmacotherapy.

Abolghasemi and colleagues (2008) made a comparison between Beck cognitive therapy and intellectual cognitive therapy in order to decrease depression and change meta cognitive beliefs in patients characterized with dysthymic disorder. They tested the mentioned issues based on depression list, psychological interview and Beck psychological questionnaires. According to behavioral criteria of psychology; notions, beliefs, patterns and negative attitudes lead to depression and depressive symptoms in patients suffering from dysthymia.

According to criteria of cognitive therapy, factors such as changing negative notions into positive notions in depressed patients, justifying negative beliefs of depressed patients, depressed patients’ positive and logical thoughts lead to decrease of depressive symptoms in patients. Therefore, the first assumption is confirmed, meaning that behavioral therapy or better to say cognitive behavioral therapy could be effective in decreasing mental disorders. The other finding of this research shows that pharmacotherapy could decrease dysthymic disorder in women. The results show that pharmacotherapy is effective in decreasing depression symptoms in patients suffering from depression. In this research, Saskia and Colleagues (2006) confirmed the effectiveness of pharmacotherapy and psychotherapy through doing randomized and controlled tests.

Both methods of pharmacotherapy and psychotherapy are effective in decreasing depression. In normal depressions, in comparison with low depressions, the both therapeutic methods are hugely effective. However, in chronic depression and non-chronic depression, these two methods are not the same in effectiveness. In these depressions, psychotherapy shows better results than pharmacotherapy. Moreover, the results of the present paper are confirmed by other studies; these studies have been done by John and Colleagues (2000), Michael and Colleagues (2004) and Peterson and Colleagues (2007) and Sajadi and Colleagues (2008). The results of the present research are based on criteria of pharmacology, based on these criteria, mental disorders and nervous system and also disorders in dopamine, norepinephrine, and serotonin may lead to depression symptoms.

Therefore, prescription and administration of anti-depression drugs in depressed patients could decrease depression symptoms in these patients. In other words, according to these criteria, anti-depression drugs are very effective in decreasing depression symptoms in women. Therefore, according to previous studies confirming the present research, the second assumption is also confirmed. Hence, we can conclude that pharmacotherapy is one of the influential methods in decreasing depression symptoms in depressed women.

The findings show that CBT in comparison with pharmacotherapy is more effective in decreasing depressive disorders; moreover the combination of these methods is also effective. According to researches done, cognitive therapy is a therapeutic method which aims to help patients correct their wrong personal beliefs bringing about negative manners and behaviors. The main assumption is that always a thought is the background of a mood, in other words, moods are the results of thoughts, and therefore, replacing negative thoughts with positive thoughts will improve the individual’s mood, behavior, confidence, and physical health. The studies show that cognitive therapy is a therapeutic method in treating depression. This method is more influential than other therapeutic methods. Some evidences
show that cognitive therapy leads to decrease of depression in teenagers. The previous assumptions of the present research were done based on the studies done by the below researchers. Jonghe and Colleagues (2004), Larry and Feldman (1998), Zindel and Colleagues (2001), Conte and Colleagues (1986), Sadahi et al.,(2009) and Michael (2005). Moreover, when patients are under treatment based on the combined method (CBT and pharmacotherapy) the result of treatment is more satisfactory.

Vania et al., (2008) have studied the cognitive therapy and also effectiveness of CBT in treating depression, they finally found that CBT is the most effective therapy for depression and lots of experimental evidences show the effectiveness of this therapeutic method whether applied alone or in combination with other therapeutic methods. Hamidpour et al., (2009) studied the effect of cognitive therapy in treating dystymia.

In this research, researchers found that both of therapeutic methods are more effective in decreasing depression symptoms than Teasdale model. Abolghasemi et al., (2008) have also studied the comparison among mentioned psychological methods which decrease depression and change meta cognitive beliefs in depressed patients.

REFERENCES


Research Article


