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# Effectiveness of Cognitive-Behavior Group Therapy, Psycho-education Family, and drug Therapy in Reducing and Preventing Recurrence of Symptoms in Patients with Major Depressive Disorder

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**ABSREACT**

Depression constitutes one of the most common mental disorders, and medical and psychological therapies are the major therapeutic options for it. The aim of the present study is to examine the efficacy of group cognitive-behavioral therapy, psycho-educational family and medical therapy in reducing and preventing the recurrence of symptoms in patients with major depressive disorder (MDD). This is clinical trial on 60 women with major depressive disorder. Our findings indicate significantly difference between depression scores of the two experiment groups and the control group after intervention. On follow-up, however, only the second experiment group (family education) indicated a significant difference from the control group and the other groups were not significantly different.

**KEY WORDS:** Drug therapy, major depression, group cognitive-behavioral therapy, psycho-educational family, Iran.

## 1. INTRODUCTION

Depression is a common mental illness and is one of the major causes of disability worldwide (Organization, 2015). The World Health Organization has estimated that about 350 million people of all ages suffer from this disease, most of whom are women, who make up about 80 percent of morbid cases (Organization, 2015; Stegenga, 2012). The risk of relapse in depressive disorder is a major problem in this disease and need the proper interventions (Preventing Recurrent Depression, 2007).

Various approaches exist to treat major depressive disorder (MDD), and the psychiatric approach considers medication as the first line of therapy Diagnostic and statistical manual of mental disorders DSM-5 (American Psychiatric Association, 2013). But instead of healing depression, popular antidepressants may induce a biological susceptibility making people more presumably to become depressed in the future (Kirsch, 2014). Nevertheless, other approaches, including cognitive-behavioral therapy, have also attracted the attention of clinicians (Berger, 2015; McMahon, 2016). Group cognitive-behavioral therapy is probably helpful in mental health of patients with depression, but few studies have demonstrated its efficacy (Cramer, 2011). Cognitive-behavioral therapy is a strategy for patients failing to respond to pharmacotherapy in psychiatric care provider (Nakagawa, 2014). Although the efficacy of medical therapy over cognitive-behavioral therapy is often mentioned in an exaggerated fashion, little research has been conducted to establish superiority for medical therapy over cognitive-behavioral therapy (Lam, 2013).

Disruption of social relationships domains, can threaten mental health and provide context of depression emergence (Barger, 2014). Among social factors, family relationships is a risk factor for depression that education in family members can be preventive factor for susceptible to depression (Chen, 2013). During the recent years, psychological therapies, particularly mental-social intervention, are gaining popularity (Weightman, 2014). One such intervention is the "mental family education" and systemic family therapy (Taylor, 2015; Kooistra, 2014). This method is cost effective procedure in the relapse prevention of depression (Shimodera, 2012) and improve qualitu of life in MDD (Sharif, 2012). Some studies indicate that mental family education results in a significant decrease in "feeling pressure" or "family burden" following the intervention and one year after it in patients with mood disorders (Bernhard, 2006). Furthermore, Falloon reported that mental education to caregivers improves social function of patients with mental disorders (Falloon, 2003). Although family interventions for mood disorders in community settings yet are discussed (Miklowitz, 2012).

Considering the controversial findings of previous studies, as well as the importance of cultural variables, the three therapeutic options must necessarily be compared. For this purpose, the present study was designed to evaluate the effectiveness of cognitive-behavioral therapy, mental family education, and medical therapy in reducing and preventing symptoms recurrence of symptoms in patients with MDD.

## 2. MATERIALS AND METHODS

This is a clinical trial using pre-test, post-test with a control group. The study population consisted of all female patients with MDD admitted to a psychiatric hospital in Shahrekord, a city in western Iran. 60 patients were randomly selected by convenience sampling and assigned to two experiment groups and control group. All three groups received standard medical therapy. The first experiment group underwent cognitive-behavioral therapy for eight sessions, and families of patients in the second experiment group underwent psycho-educational family for

eight sessions. After the intervention, the patients' symptoms were followed up for a period of 6 months. Data were collected using Beck II depression test which was administered to patients before, following and 6 months after the last intervention. Beck II is among the commonly used depression tests with high validity and reliability (Scogin, 1988; Beck, 1988). Data were analyzed by analysis of covariance with SPSS version 18.

## 3. RESULTS

Table 1 summarizes the descriptive characteristics including mean and standard deviation of depression scores for the three stages of the study.

**Table.1. Mean and standard deviation of depression scale scores for the three groups and the three stages of the study**

| | **Group 1* (n=20)** | | | **Group 2** (n=20)** | | | **Group 3*** (n=20)** | | |
|---|---|---|---|---|---|---|---|---|---|
| | Pre-test | Post-test | Follow-up | Pre-test | Post-test | Follow-up | Pre-test | Post-test | Follow-up |
| Depression Score | 41.45 (3.83) | 32.73 (2.95) | 39.58 (2.76) | 43.3 (4.86) | 31.42 (3.18) | 38.27 (3.1) | 42.65 (4.86) | 37.09 (2.26) | 40.84 (3.55) |

* Group cognitive-behavioral therapy + medical therapy
** psycho-educational family + group cognitive-behavioral therapy + medical therapy
*** Medical therapy

As Table 1 depicts, the mean depression scores for the experiment groups decreased compared to the control group. The results indicated a significant difference in depression scores of the three groups after therapy and during follow-up. Table 2 compares the mean depression scores of the three groups after therapy in pairs.

**Table.2. Pair wise comparisons the difference in mean depression scores of the groups after therapy**

| **Groups** | | **Means Difference** | **Std. Error** | **P Value** |
|---|---|---|---|---|
| 1 | 2 | 1.316 | 0.918 | 0.157 |
| | 3 | -4.35 | 0.913 | 0.000 |
| 2 | 1 | -1.316 | 0.918 | 0.157 |
| | 3 | -5.66 | 0.910 | 0.000 |
| 3 | 1 | 4.353 | 0.913 | 0.000 |
| | 2 | 5.66 | 0.910 | 0.000 |

As Table 2 depicts, there is a significant difference between the two experiment groups and the control group after therapy, indicating that group cognitive-behavioral therapy and psycho-educational family have been efficient in reducing symptoms of depression.

**Table.3. Pair wise comparisons the difference in mean depression scores of the groups on follow-up**

| **Groups** | | **Means Difference** | **Std. Error** | **P Value** |
|---|---|---|---|---|
| 1 | 2 | 1.311 | 0.798 | 0.106 |
| | 3 | -1.254 | 0.794 | 0.120 |
| 2 | 1 | -1.311 | 0.798 | 0.106 |
| | 3 | -2.565 | 0.791 | 0.002 |
| 3 | 1 | -1.254 | 0.794 | 0.120 |
| | 2 | -2.565 | 0.791 | 0.002 |

As Table 3 depicts, there is a significant difference in depression scores of the psycho-educational family and medical therapy groups; however, the difference is not significant in other cases. This finding indicates that psycho-educational family has been more efficient in preventing the recurrence of depression symptoms compared to other groups.

## DISCUSSION

The findings of the present study reveal that group cognitive-behavioral therapy and psycho-educational family alongside standard medical therapy are effective in reducing depression symptoms. This is consistent with findings of Dingle (2010), and Luciano (2012) studies. Tursi (2013) show psychoeducation is a psychosocial therapy that has been proven as an adjunct to pharmacological therapy and can be reduction of the psychosocial burden for the family. Another study showed that psychoeducation was an independent therapeutic program within the framework of a cognitive-behavioral approach that can be used for patients and their families who may suffer from a schizophrenic disorder Bauml (2006). Shimazu, study showed family psychoeducation was more effective in preventing of relapse in intervention group (with major depression) than in the control group (Shimazu, 2011). Other psychoeducation intervention showed that family psychoeducation for family members of patients with one year follow-up, could be a new approach for rehabilitation patients with MDD (Katsuki, 2014). However, the study also reported that family psycho-education combined with pharmacotherapy is more efficacious

compared to the use of these methods alone. This combination causes faster recovery, decrease in severity of depression and progress in subjective wellbeing and improvement social functioning (Kumar, 2015).

Other studies have suggested no difference in treatment efficacy between cognitive behavioral therapy and the use of second generation antidepressants (Amick, 2015). Some studies report a positive effect for cognitive-behavioral therapy in relieving depression symptoms (Kooistra, 2014). Other studies have demonstrated the efficacy of combined medical and cognitive-behavioral therapy in improving symptoms of depression (Davey, 2014). In addition, some studies reported lack of effect of successful for cognitive-behavioral therapy in treating depression and concluded that his therapy requires further investigation. Cuijpers, in a Meta-analysis study demonstrated that psychotherapy was significantly more effective than drug therapy with tricyclic antidepressants (Cuijpers, 2013).

Major depression responds to drug therapy, but 10%–30% of them do not improve in physiological symptoms. Combined treatment need to fight resistant depression and sometimes require multi treatments are needed to prevent the recurrence of depression (Al-Harbi, 2012). Some strategies include psychosocial and cultural therapies, antidepressants, switching of drugs and non-antidepressants augmentation, somatic therapies such as repetitive transcranial magnetic stimulation, electroconvulsive therapy, deep brain stimulation, transcranial direct current stimulation, magnetic seizure therapy, and vagus nerve stimulation (Al-Harbi, 2012). Recently a re-immerge can be seen in investigation and the use of herbal medicines on other psycho-neurological disorders (Saki, 2014; Bahmani, 2016; Rabiei, 2014).

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