COGNITIVE BEHAVIOR THERAPY IN DEPRESSION

Siddiqua Aamir, Nor Zuraida

ABSTRACT

Objective: To demonstrate the effectiveness of addition of cognitive behavior therapy to pharmacotherapy in treatment of depression.

Design: Randomized Control Trial.

Place and duration of the study: This Study was conducted at the Department of Psychological Medicine, Faculty of Medicine, University Malaya Medical Center, University Malaya, Kuala Lumpur, Malaysia, from January 2010 to August 2010

Subjects and Methods: It was a randomized control trial conducted on patients with depressive disorder. Experimental group was treated with cognitive behavior therapy plus pharmacotherapy while control group treated with pharmacotherapy only. Twelve sessions of cognitive behavior therapy were administered to experimental group in addition to (pharmacotherapy) while control group was given pharmacotherapy only.

Results: Significant difference was found between the mean scores of two groups on HAM-D on the last follow up session experimental group ($M = 3.2 \pm 4.0$) at the same time the Control Group mean score was documented as ($M = 7.15 \pm 4.3$), t (37) = 3.4296, $p < 0.001$. Mean follow up sessions for Experimental Group were 11.2 ± 1.94 and for Control Group was 9.2 ± 3.9 .

Conclusion: Cognitive behavior therapy in combination with pharmacotherapy can be used as first line treatment for depression to get full remission and reduce default rate among patients.

Key words: Depression, Cognitive behavior therapy, Pharmacotherapy

INTRODUCTION

Psychotherapy and pharmacotherapy are valid options to treat patients with depression. Cognitive Behavior Therapy is strongly considered as preliminary therapy for patients with severe or chronic depression. A large number of studies recommend that both psychological and pharmacologic therapies are successful in the treatment of mild-to-moderate depressive disorders. Whether both types of intervention are similarly effective has not been established definitively.[1-4]

A Meta analysis that incorporated twenty-five randomized trials with a total of 2,036 patients in which the effects of a pharmacologic treatment were compared to the effects of a combined pharmacologic and psychological treatment in adults with a depressive disorder. It concluded that the dropout rate was significantly lower in the combined treatment group as compared to the pharmacotherapy group. Psychotherapy seemed to have an additional value compared to pharmacotherapy unaided for depression.[1-4]

Studies have revealed that cognitive therapy is a successful management for depression and is analogous in efficacy to antidepressants the blending of cognitive therapy and antidepressants has been shown to well manage severe or chronic depression. Cognitive therapy also has proved helpful in treating patients who have only an incomplete response to adequate antidepressant therapy. First-rate data has shown that cognitive therapy reduces relapse rates in patients with depression. [5]

One study combined Fluoxetine with cognitive-behavioral therapy and found that was more effective in improving functioning, global health, and quality of life in depressed adolescents than was either treatment alone.[6]

Another study conducted to determine both the clinical and cost-effectiveness of usual general practitioner (GP) care compared with two types of brief psychological therapy (non-directive counseling and cognitive-behavior therapy) in the management of depression as well as mixed anxiety and depression in the primary care setting. At 4 months, both psychological therapies had reduced depressive symptoms to a significantly greater extent than usual GP care. Patients in

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the psychological therapy groups exhibited mean scores on the Beck Depression Inventory that were 4-5 points lower than the mean score of patients in the usual GP care group, a difference that was also clinically significant.[7]

The aim of this research was to demonstrate the effectiveness of adding up of Cognitive behavior therapy to pharmacotherapy in treatment of depressive disorder. Psychological treatment (psychotherapy) of depression can help the depressed individual in a number of ways. Initially, supportive counseling assists alleviate the hurt of depression, and tackle the mind-set of hopelessness that accompanies depression. Subsequently, cognitive therapy alters the negative thoughts, unworkable expectations, and exaggeratedly dangerous self-evaluations that generate depression and maintain it. Cognitive therapy aids the depressed people recognize which existence problems are grave, and which are trivial. It in addition facilitates patients to build up optimistic and constructive life objectives, and an extra helpful self-assessment. Consequently, problem resolving management of CBT transforms the areas of the person's life that are generating noteworthy pressure, and fundamental to the depression. This may need cognitive behavioral therapy to build up enhanced coping skills, to support in resolving relationship problems. CBT is a kind of practical therapy, which endeavors to resolve a dilemma. For that purpose in this research, sessions were centered on precise apprehensions of the patient. It was hypothesized that Cognitive behavior therapy and antidepressant drugs would be more effective in treating unipolar depression patients and they would likely to continue treatment and would have less chances of relapse in future as compared to depressed patients who receive treatment as usual (pharmacotherapy) antidepressant drugs only.

SUBJECTS AND METHODS

It was a randomized controlled trial. Fifty two (N=52) patients of depression diagnosed as per DSM-IV criteria by consultant psychiatrists were recruited for the study. It was carried out on in and out patients of depression presenting to Psychiatry Unit of University of Malaya Medical center from January 2010 to August 2010. All the consecutive diagnosed in and out patients of depression of both sexes above 18 years of age presenting to Psychiatry Unit of University of Malaya Medical center were engaged and randomly assigned to psychotherapy (Experimental Group) and treatment as usual (Control Group) for the study after getting informed consent. Exclusion criteria was a history of any other psychiatric illness present drug or alcohol dependence, physical impairment that would interfere with the ability to attend therapy and patients who were unwilling to participate.

Data collection tools included detailed Demographic profile of all the patients. Hamilton depression rating 17 items scale was used for the assessment of the level of depression between patients of Experimental and Control Groups at baseline (first session) and last follow up session.[8] Twelve sessions of Cognitive Behavior Therapy for Experimental Group and regular follow up with the same psychologist for Control Group.

Team of Psychiatrists was involved. Permission was taken. The author herself presented and defended the synopsis in front of the Institutional Review Board. (University Malaya Medical Center, University Malaya, Kuala Lumpur, Malaysia)

It was a randomized control trial. Fifty two patients (N=52) of depression diagnosed as per DSM- IV criteria by consultant psychiatrists were recruited and were randomly assigned to the Cognitive behavior therapy (Experimental Group) (n=26) and treatment as usual (pharmacotherapy) (Control Group) (n=26) for the study.

Demographic characteristics of all the patients were obtained. Total 12 sessions of Cognitive behavior therapy for 12 weeks (1 session of 45 minutes per week) were administered to psychotherapy (Experimental Group) in addition to routine pharmacotherapy. Every patient assigned to Experimental Group on the first session was trained in breathing exercises and muscle relaxation techniques. They were also asked to schedule and rate their routine activities on the form provided by the therapist on the scale of 0-10 for mastery and pleasure. On each follow up sessions events were discussed with the therapist. In addition during the session's the patients were helped to identify, challenge and change different cognitive distortions that they were having and reset goals for life, for that purpose CBT home assignment worksheets were supplied to the patients on every follow up session and were discussed subsequently on all follow up sessions.[9-12] While treatment as usual (Control Group) received only antidepressant drugs and weekly follow up sessions. For the evaluation of the level of depression Hamilton Depression Rating Scale (HAM-D) was administered to the Experimental Group and Control Group at the base line (first session) as well as at the last follow up 12th session.

RESULTS

The mean age of Experimental Group was (M= 36.8 + 14.2), whilst Control Group was (M= 31.42 + 10.77). Among Experimental Group 21 (80.8%) were females while 5(19.2%) were males, at the same time in Control Group 16(61.5%) were females and 10(38.5%) were males. In Experimental Group on marital status 11(42.3%) were single 10 (38.5%) were married, 3 (11.5%) widowers and 2 (8%) divorcee. Within Control Group 14(53.8%) were single 12 (46.2%) were married. On Educational qualification profile Experimental Group included 1(3.8%) A levels, 5 (19.2%) under graduates, 14(53.8%) graduates and 6 (23.1%) post graduates patients respectively. Control Group contained 6(23.1%) A levels, 6 (23.1%) under graduates, 11(42.3%) graduates and 3 (11.5%) post graduates in that order. On work-

ing state amid Experimental Group 15 (%) were working 2(%) were not working, 3 (%) were retired and 6(%) were students. Among Control Group 10(38.5%) were working 4(15.4%) were not working, 2 (7.7%) were retired and 10 (38.5%) were students. According to ethnic groups in Experimental Group 10 (38.5%) were Chinese, 9 (34.6%) were Indians, 6 (23.1%) Malay and 1 (3.8%) was foreigner. In Control Group 11 (42.3%) were Chinese, 9 (34.6%) were Indians, 5 (19.2%) Malay, and 1(3.8%) was foreigner.

Table 1

Shows mean scores Hamilton Depression Rating Scale (HAM-D) for experimental & control groups at baseline and last follow up session.

	Experimental Group	Control Group	p value
Baseline	23.8 + 5.0	22.3 + 5.1	0.276
Follow up	3.2 + 4.0	7.15 + 4.3	0.001

At the base line the mean score on Hamilton Depression Rating Scale (HAM-D) for Experimental Group was (M= 23.8 + 5.0) and for Control Group was (M = 22.3 + 5.1). No statistically significant difference was found between the scores of two groups at that stage t *(*50) = 1.0995, p= 0.276. After 12 weeks on the last follow up session 22 patients of Experimental Group who completed 12 sessions their follow up score on (HAM-D) was reviewed their mean score was (M= 3.2 + 4.0) at the same time the Control Group mean score was documented as (M= 7.15 + 4.3), significant difference was found between the scores of two group's, t (37) = 3.4296, p= 0.0001.The effect size estimated with Cohen's d was 1.12, which is a medium effect size of .49. Odds ratio OR= 2.91, 95% confidence interval (0.7647 to 11.0881).

Mean sessions for Experimental Group were 11.2 + 1.94 and for Control Group were 9.2 + 3.9.. Within the Cognitive Behavior Therapy Group 22 (84.6%) patients continued treatment and turned over till last follow up session, whereas 4 (15.4%) defaulted the treatment subsequent to fifth, sixth, eighth and ninth sessions respectively. Amongst control group 17 (65.4%) patients were persistent while 9 (34.6%) defaulted after third, fourth and fifth follow up sessions correspondingly.

There was remarkable reduction in the symptoms of depression as per DSM IV and HAM-D criteria for Experimental Group as compared to Control Group. On the last follow up session mean reduction on HAM-D for experimental group was 23.8 – 3.2 =20.6, and for control group was 22.3 - 7.1= 15.2. At termination of research sessions 13 (50%) patients from Experimental Group and 5 (19.2%) from Control Group fulfilled criteria for treatment response. Treatment response was 50% reduction in baseline HAM-D. 9 (34.6%) from Experimental group and 12 (46%) from Control Group satisfied criteria for full remission. For partial remission, full criteria for a major depressive episode were no longer met, or there were no substantial symptoms but two months had not yet passed (Reference DSM IV) and symptoms level below 8 on HAM-D and altering of automatic negative thoughts and irrational beliefs into positive ones. Four (15.3%) patients from Experimental and 9 (34.6%) from Control Group defaulted the treatment.

Twenty Three (44.2%) patients had previous 3 to 4 episodes of depression and their duration of illness was two or more than 2 years. Twenty (48%) had 1 to 2 occurrences of depression and their period of illness was 1 or more than 1 year. Only 4 (7.7%) had first incident of depression and their extent of illness was less than 1 year.

DISCUSSION

Cognitive Behavioral Therapy (CBT) is a sort of therapy that works to restructure insight and thinking courses to facilitate in altering behaviors and emotional health. Various tools used in CBT comprise relaxation training, biofeedback, hypnosis, and desensitization.

The aim of this study was to further establish the efficacy of Cognitive Behavior Therapy plus pharmacotherapy as compared to treatment as usual (pharmacotherapy) only, at the Department of Psychological Medicine, Faculty of Medicine, University Malaya Medical Center, University Malaya, Kuala Lumpur, Malaysia where it's not generally carried out for the treatment of Depression because of the lack of trained staff (Clinical Psychologists) particularly in Cognitive Behavior Therapy.

As we all know that automatic negative thoughts and irrational beliefs of depressed patient make them go down in spiral and develop negative schemas towards themselves, people around them, the world and future life. Cognitive Behavior therapy helps depressed patients to recognize, spot out and then confront those negative thoughts in safe therapeutic environment by helping themselves and with the support of therapist and set more balanced and normal goals in life.

I n the present research patients profited significantly more from mutual CBT and antidepressant therapy as compared to pharmacotherapy alone. It's evident from the mean scores of the two groups on HAM-D at base line t *(*50) = 1.0995, p= 0.276and last follow up session t (37) = 3.4296, p= 0.0001 and after calculating the value of Cohen's d and the effect size correlation, using the t test value for between subjects' t test and the degrees of freedom. Previous case series conducted on Rumination-focused cognitive behaviour therapy for residual depression also showed 50% reduction on Hamilton Depression Rating Scale.[13]

In the current research inside the Cognitive Behavior Therapy Group 22 (84.6%) patients continued

treatment, while among control group 17 (65.4%) patients were persistent. A study carried out on 681 patients with chronic major depression compared nefazodone (Serzone), CBT, and combination therapy also demonstrated that patients benefited significantly more from combined CBT and antidepressant therapy than from either treatment alone (85 % in the combined treatment group versus 55 % for nefazodone alone and 52 %for CBT alone; $P < .001$.[14]

A meta-analysis of four studies, which included 169 patients with major depression, established analogous results for tricyclic antidepressants and CBT. The data advocate that cognitive therapy plus antidepressants is a suitable choice to antidepressants only for patients with mild to moderate depression and perhaps for patients with residual depression.[15]

According to the findings of the present research more patients from experimental group in contrast to controlled group fulfilled the criteria for Treatment response and Remission level at the last follow up session. On the final follow up session mean drop on HAM-D for experimental group was 23.8 – 3.2 =20.6, and for control group was 22.3 - 7.1= 15.2, t (37) 20.62, p=0.0001.One recent study provided preliminary data that rumination focused CBT may be an efficacious treatment for residual depression. Treatment with CBT produced significant improvements in depressive symptoms, rumination and co-morbid disorders: 71% responded and 50% achieved full remission.[13]

In additional randomized studies of outpatients with major depression, mutual treatment was established to be more suitable to patients and was linked with a considerably lesser dropout rate and a notably higher remission rate than medication alone.[16-17]

Two further studies of in patients with depression produced substantiation supporting a joint strategy over medication management.[18-19]

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