

**EFFECTIVENESS OF COGNITIVE BEHAVIOR THERAPY
AND PSYCHOTROPIC MEDICINES FOR DEPRESSION
AND PSYCHOLOGICAL WELLBEING
IN PATIENTS WITH DEPRESSION**

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ABSTRACT

This study investigated the effectiveness of CBT and psychotropic medicines for depression and psychological wellbeing in patients with depression. It also examined the difference in the treatment outcomes of psychotropic medicine alone as compared to CBT in combination with psychotropic medicines. The sample comprised of 50 male and female patients with depressive disorders out of which 25 patients received psychotropic medicines & 25 patients received CBT in combination with psychotropic medicines. The age of the sample ranged between 20-50 years recruited through purposive sampling. The quasi-experimental (Pretest-Posttest) design was employed. The results indicated that there was significant effect of both treatments on the patients of depression but combine treatment of CBT with psychotropic medication has more significant effect than the psychotropic medication alone. The study have implications and pave path for future investigation.

Keywords: *Depression, Psychological Wellbeing, Cognitive Behavior Therapy, Psychotropic Medications*

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INTRODUCTION

A straight relationship follows between the severity level of individual's negative thoughts and the severity of symptoms of depression. As outcome of Beck's (2005) research, the severity of depression symptoms is caused by more negative thoughts. Williams (2002) defined the depression as, when an individual feels very low for minute or no evident reason, for more than 2 weeks and feels similar this day after day, and week after week. A prevalence study investigated that depression is a noteworthy contributor to the universal burden of mental illness and disturbs individuals in all cultures across the creation (Marcus, Yasamy, Ommeren, Chisholm, & Saxena, 2012).

Aaron T. Beck developed the original model of depression (Beck, Rush, Shaw, & Emery, 1979). Beck categorized it as negative perception of the self (e.g. "I am a loser"), the world (e.g. "people will hurt me if I give them a chance"), and the future (e.g. "things will never get better, only worse"). According to Beck these dysfunctional thinking arrays necessarily caused depression ("though they might in some circumstances") but that they were related with depression. A multifaceted combination of psychological aspects, biological variables and social factors expected to cause depression, but it seems to be a cycle of cognition, emotion or affect and behavior, which can lead towards depression (Whisman, 1993). Research study proposed that different cognitive behavioral theorists have established their own unique spiral on the Cognitive approach of thinking (Clark, Beck, & Alford, 1999).

Cognitive Behavior Therapy targets numerous areas of possible vulnerability (e.g., "cognitive, behavioral, and affective") with strategies of multiple interventions. That's why CBT is counted as "first line treatment" for various psychological disorders (Benjamin et al., 2012). CBT indicates a distinctive kind of psychological intervention based on systematic representations of emotion, human behavior, and cognition (Dozois & Dobson, 2001). Cognitive behavior therapy contains a wide range of intervention approaches which precedes the existing knowledge about the causes and maintaining factors of the different psychological disorders (Beck, 2005).

Cognitive behavior intervention has long-term effects that reduce risk for consequent symptoms as suggested by the recent researches. CBT has verified as most effective treatment for depressive disorders and other disorders i.e. anxiety, OCD (Hollon et al., 2014; Hollon, Stewart & Strunk, 2006).

Pakistan Journal of Psychology

A meta-analysis research results indicated that CBT is very effective management for depression (Johnsen & Friberg, 2015; Kuyken, Dalgleish, & Holden, 2007). Cognitive Behavior Therapy emphasizes on fixing the destruction after recurrent negative beliefs and thought patterns and un-helpful behaviors that can be used effectively in management of depressive and bipolar disorders (Brooks, Sommer, & Ketter 2010). Conclusion of a research was that combine modality (cognitive behavior therapy and psychotropic medication) is superior for the treatment of depression than the alone treatment (Nemeroff et al., 2000)

In a research conducted on adult outpatients with major depressive disorder, three types of treatment were implemented with patients (nemeroff et al., 2000). Result indicates that combination of the two treatments is significantly more efficacious than either treatment alone. Cognitive therapy in combination with antidepressants medication treatment increases the rates of recovery from Major Depression Disorder as compare to Antidepressants Medicine alone (Hollon et al., 2014). Another research study assessed the effectiveness of cognitive behavior therapy with medicine, vs. medicine alone, vs. cognitive behavior therapy alone (CBT) for the treatment of depression in adult outpatients (Thompson, Coon, Gallagher-Thompson, Sommer, & Koin, 2014). The results show that psychotherapy can be an effective treatment for adult outpatients with moderate levels of depression.

Wellbeing is generally defined as the capability to function fully and vigorously over the physical, logical, responsive, transcendent, social and environmental factors of health (Gerrig & Zimbardo, 2002). Huppert (2009) defined psychological wellbeing as combination of feeling worthy and functioning efficiently. By description consequently, individuals with high level of psychological wellbeing report well supported, satisfied with life, feeling happy, and capable, and so on. Carol Ryff has done pioneer work on the study of psychological well-being. According to Ryff (1989), there are 6 dimensions of psychological wellbeing (Ryff & Keyes, 1995). Happiness or psychological wellbeing is not the main motivation of a person but rather the result of well lived life (Ryff & Singer, 1998).

A research investigated the improvement of psychological wellbeing through psychological interventions. The result indicated that, individuals who are experiencing psychological illness cannot develop a meaningful and purposeful life (Slade, 2010). A research (Edmondson & MacLeod, 2015) on comparison of Psychological Wellbeing indicates that that psychological wellbeing has negative

Yasmeen & Hassan

correlation with depression. The outcomes of a study revealed that resilience and psychological wellbeing can be endorsed by specific treatments (Fava & Tomba, 2009). A research (Moeenizedeh, Kumar & Salagame, 2010) focused to increase the level of psychological wellbeing of patients with depression. Test-retest of Wellbeing Therapy and Cognitive Behavior Therapy exhibited a more significant effect between pre and post treatment among patients with depression.

Literature studies confirm the high prevalence of depressive disorders in Pakistan. Western studies indicate two treatment methods as effective to deal with depression. These treatment methods are antidepressants and psychotherapies. Researches also indicate that there is a difference in effectiveness of both treatment methods; however there are inconsistent findings regarding effectiveness of both methods. There is dearth of such kind of studies in Pakistani Cultural context hence suggesting gap in literature. This gap may ensue from the fact that in Pakistan, people prefer to take treatment from religious and faith healers who use different kind of treatments like numbers, cards, palmistry etc. to treat people for psychological, physical and relationship problems (Farooqi 2006). There is less trend of taking evidence based treatments. Hence, to fill in this gap in literature, this study intends explore the effectiveness of psychotherapy specifically cognitive behavior therapy when it used in combination with psychotropic medicine with comparison to only psychotropic medicines.

Following hypotheses were framed:

1. There would be a difference in the level of depression and psychological wellbeing before and after application of CBT in combination with psychotropic medicine in adult patients with depression.
2. There would be a difference in the level of depression and psychological wellbeing before and after using psychotropic medicines alone in adult patients with depression.
3. There would be a significant difference in the treatment outcomes of psychotropic medicine alone as compared to CBT in combination with psychotropic medicines.

METHOD

Participants

The sample for the current study comprised of patients diagnosed with depressive disorders. The age of the participants ranged between 20-50 years, both

Pakistan Journal of Psychology

genders were included in the sample. Total sample size was ($N= 50$) divided into patients ($n=25$) who were using psychotropic medication and patients ($n=25$) who were treated by Cognitive Behavior Therapy in combination with psychotropic medication. These patients were approached from different private clinics and government and private hospitals. Participants were selected through non-probability purposive sampling strategy.

Inclusion Criteria

- The participants were included with following stipulated characteristics:
- The patients between age range of 20-50 years.
- Patients from all marital status were included.
- Patients from all socioeconomic background were selected.
- Patients from all educational level were included.
- The patients of depression, acute and chronic both type of depression were included.

Exclusion Criteria

- Patients beyond the specified age range were excluded.
- Patients with conditions comorbid with any other psychological disorder were excluded.
- The patients with substance abuse disorder were excluded.
- Patients with organic causes of depression were excluded.

Measures

Siddiqui Shah Depression Scale

The Siddiqui Shah Depression Scale (SSDS) developed by Siddiqui and Shah (1997) is an indigenous measure of depression in Urdu. "The subject rates his/herself on a 4 point scale ranging from not at all to all the time. It consists of 36 items, 12 items for each mild depression, moderate and severe depression. Score of 26-36 shows mild depression, 37-49 shows moderate depression and 50 above score shows severe depression. Cronbach's alpha is found to be .94 for medication group and .96 for CBT with medication group that shows excellent internal consistency.

Ryff's Psychological Wellbeing Scale

The Urdu version of Psychological Wellbeing Scale was used in the present study to assess the levels of psychological wellbeing in the participants (Ryff & Keyes, 1989). In this study, 54-item translated version was used (Jabeen & Khalid, 2010). Cronbach's alpha of psychological wellbeing 54 items scale Urdu version is .87 of medication group that shows very good internal consistency and .97 of group who had taken Cognitive behavior therapy with medication which indicates excellent internal consistency.

Procedure

First of all, a list of public and private hospital or clinics dealing in psychiatry was prepared from Lahore, Pakistan. After the written permission from the concerned authorities of Hospitals/ Clinics for data collection, consent for conducting the study was also taken from the Psychotherapist and Psychiatrist. Quasi (Pretest-Posttest) experimental research design was used in this study to examine the outcomes of different treatment methods for patients diagnosed with depressive disorders.

Purposive sampling was used in this process for data collection. Pretest was administered on their first visit to Psychiatrist and Clinical Psychologist. Posttest was administered after one month on those patients who were using psychotropic medication and those who were taking and completed minimum eight sessions of cognitive behavior therapy in combination with psychotropic medication. First of all the consent form was filled by the clients followed by the demographic data sheet (see table 1). For the assessment of depression and psychological wellbeing, detailed instructions according to the scale were given to the client. Then the scales of depression and psychological wellbeing were provided. Researcher filled out the forms of those patients who were not eligible to read and write.

Statistical Analysis

After administration of measures on selected participants, scoring was done according to the standardized procedures. Statistical Package for Social Sciences (SPSS) was used for statistical analysis of the data. Paired sample t-test

was applied to evaluate the hypotheses. Cohen's d was applied to examine the effect size of treatment outcomes among both groups.

RESULTS

Table 1
Demographic Characteristics of the Sample (N=50)

Variables	f	%
Gender		
Males	19	38
Females	31	62
Age		
20-29	16	32
30-39	17	34
40+	17	34
Family Structure		
Joint	25	50
Nuclear	25	50
Marital Status		
Married	11	22
Unmarried	36	72
Divorced	3	6
Education		
Uneducated	18	36
Primary	4	8
Middle to Matric	14	28
Intermediate	6	12
Graduate and above	8	16

Yasmeen & Hassan

Table 2

Paired Sample t-test of Depression and Psychological Wellbeing for Patients who were taking CBT in combination with Psychotropic Medication and Patients who were taking only Medication

Groups	Variables	<i>Pre-Test</i>		<i>Post-Test</i>		<i>t</i>	<i>p</i>	<i>Cohen's d</i>
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Group 1	Depression	67.88	17.99	36.69	12.95	11.67	.00*	1.97
	PWB	155.48	26.59	262.40	18.19	-16.33	.00*	-4.69
Group 2	Depression	56.12	20.21	43.20	22.23	4.71	.00*	0.61
	PWB	171.24	20.21	200.08	26.04	-5.37	.00*	-1.02

Note. PWB=Psychological Wellbeing

p <.05

Table 3

Difference in the Treatment Outcomes of Psychotropic Medicine Alone as compared to CBT in combination with Psychotropic Medicines

Variables	CBT with Medication Cohen's d	Psychotropic Medicines Alone Cohen's d
Depression	1.972	0.607
Psychological Well-Being	-4.69	-1.02

DISCUSSION

The result of first hypothesis revealed that combine treatment as cognitive behavior therapy with psychotropic medication play a vital role in decreasing the level of depression and enhancement of psychological wellbeing among adult patients. The result shows a significant decrease in the mean score of depression at post-test compared to pre-test followed by the treatment of cognitive behavior therapy with psychotropic medication (Table 2). The results also reveal a

significant increase in the level of psychological wellbeing at post-test as compared to pre-test. These findings are in line with the existing studies which suggest and increase in psychological wellbeing followed by treatment. To illustrate, Slade (2010) research demonstrated that psychological wellbeing can enhance by the psychotherapy and individuals who are experiencing psychological illness can develop a meaningful and purposeful life.

The second hypothesis of the research was comparison of the differences in the level of depression and psychological wellbeing before and after using psychotropic medicine among adult patients with depression. The results (Table 2) show significant effect of psychotropic medication on the level of depression and psychological wellbeing. These findings are supported by the past researches. The meta-analysis by Bollini and associates (1999) demonstrated the effectiveness of antidepressant medications.

The third hypothesis of the research showed the considerable differences between two treatments, cognitive behavior therapy in combination with psychotropic medication and psychotropic medication alone. The effect size of both treatment groups were measured by the Cohen's *d*. Effect sizes pointed out that group of combined treatment have large effect size (Depression: $d=1.972$ & Psychological Wellbeing: $d= -4.69$) as compared to the effect size of group who took psychotropic medicine alone (Depression: $d=0.607$ & Psychological Wellbeing: $d= -1.02$) (Table 3).

These findings are consistent with findings from previous study where antidepressant medication with psychotherapy as a combined treatment and psychotherapy alone were compared in adult diagnosed patients with a depressive or anxiety disorder. Outcome of the research mentions that combine treatment of cognitive behavior therapy in combination with psychotropic medication has significant effect on patients of depression as compared to the psychotropic medication alone (Cuijpers et al., 2014). Hollon et al. (2014) also discuss the same findings in their research that cognitive therapy in combination with antidepressants medication treatment increases the rates of recovery from major depression disorder as compare to antidepressants medicine alone. The same type of study is conducted by Thompson et al. (2014) where the comparison of different treatment groups was made. They concluded that the combined treatment group showed greater improvement than the medicine alone group, the combined therapies were most effective in patients who were more severely depressed. One reason of larger significance of combine therapy was cognitive behavior therapy

Yasmeen & Hassan

led to significantly less relapse than medication. Studies gave the similar finding in their research that cognitive behavior therapy resulted 61% lower relapse or recurrence of the depression than antidepressant medication (Mchugh et al., 2013).

The study will provide awareness to the people diagnosed with depression, professionals in field of psychology and society about the effectiveness of cognitive behavior therapy for depression. This study will not only be helpful for psychologist but also for psychiatrist to understand the effectiveness of cognitive behavior therapy in combination with psychotropic medicine as compared to psychotropic medication alone. This study will broadly explain the equal vulnerability of both genders to have depression. This study will assist to comprehend that psychological wellbeing can increase through treatment.

Even though the findings of the present study are helpful and valuable, the shortcomings must not be ignored. Cognitive behavior therapy should be included as the major part of treatment among patients with depression. Longitudinal studies should be conducted on the patients with depression. A comparison study of Cognitive Behavior Therapy with other psychotherapies like psychoanalysis, rational emotive behavior therapy, behavior therapy etc. can be studied along with depression. Comparative Relapse rate researches on cognitive behavior therapy and psychotropic medicine can be conducted in Pakistan. Personal characteristics of psychologist or psychotherapist can be studied such as education, age experience etc. Moderating effects of other variables on cognitive behavior therapy can be studied. The sample was not too diverse to capture all type of population.

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Yasmeen & Hassan

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Pakistan Journal of Psychology

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