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Research Paper

Effect of Cognitive Therapy on Moderate Depression

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ABSTRACT

Introduction: Around the world, depression is known to be the leading cause of non fatal health loss, accounting for 7.5% of years spent in disability.As per NHMS, in 2015 over 45 million Indian populations lived with depression. A treatment gap of 87.2–95.7% was also reported, which is a serious concern. Effectiveness of treatment is another serious concern which is also known to be a highly probable factor contributing to the treatment gaps. Therefore, it is necessary to fill up the gaps that exist in the effectiveness of therapeutic approaches including psychotherapies. Patients can alter the erroneous beliefs that cause unfavorable moods and behaviors through the use of cognitive therapy (CT), a form of therapy. In view of the eclectic approach and progression, soon after its introduction, CT was combined with many behavioral techniques, though homework was an integral part since the beginning; and Cognitive-behavioral approaches (CBT) started trending more. CBT is definitely efficacious in successfully relieving the sufferers of depression but needs to focus on both behavior and cognition. The present study focused on exploring the effect of cognitive therapy as a single approach of focusing only on the cognition in treating depression. ***Objectives:*** To analyze the effect of cognitive therapy on patients with moderate depression. ***Method:*** A purposive sample of 30 patients in the age range of 20 to 45 years. These patients were being assessed by using ICD 10 criteria for diagnosis in clinics of Haryana. The patients with moderate depression who were found to be suitable for cognitive modifications were selected for an eight-session CT intervention. A pre and post-assessment was done using Beck's depression inventory (BDI). All patients were on low doses of antidepressant medications. ***Results and discussion*:** The pre-post assessment scores on Beck's depression inventory were analyzed by using t-test for paired samples and CT was found to be significantly effective in reducing depression (t= 20.571, P= .000).

Keywords: *Cognitive Therapy (CT), Moderate Depression, Cognitive Behavioral Therapies (CBT), Efficacy of Psychotherapy*

Depression is used to often describe low mood and depressive feelings that change the way one perceives events, situations, and people. Depression refers to a constellation of symptoms that might cause physical, mental, and behavioral impairment in one's self, thereby causing prolonged impairment and severity of the illness (Deb and Bhattacharjee, 2009). Depression is a serious illness that can have an effect on a

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person's social life, family relationships, career, sense of self-worth, and purpose in life, among other aspects of life. In 2015, depression was found to be the leading cause of non-fatal health loss globally, contributing to 2.0% of global DALYs and 7.5% of global Years Lived with Disability (YLDs) (James et al., 2018). By 2030, it is anticipated to rank as the second most significant global source of disease burden and the third most significant in Low and Middle-Income Countries (LMICs) (Mathers and Loncar, 2006).

Globally, the number of persons who live with depression increased by an estimated 18.4% between 2005 and 2015 (Vos et al., 2016). Over 45 million people over the age of 18 reported having depression in 2015, which represents one in 20 people over that age group (Gautham et al., 2020). Relatively, a recent report by WHO indicated that the global prevalence of depressive disorder and episodes varied between 3.2 and 4.7%, while in India in a recent National Mental Health Survey, the weighted lifetime prevalence was reported to be 5.25 and the current prevalence was found to be 2.68% (Arvind et al., 2019).

In LMICs, there is a known cure gap for depression of more than 90% (Wang et al., 2007; Wang et al., 2007b). According to community-based studies, there is a treatment gap for depression in India that ranges from 87.2 to 95.7% (Shidhaye, Gangale and Patel, 2016; Rathod et al., 2016; Gautham et al., 2020). Arvind et al., (2019) stated that the treatment gap was 79.1% in their study population. Numerous persons who had mental health issues encountered stigma, poor treatment within the healthcare system, and it's terrible effects on the patients and their families (Kermode et al., 2009). The results emphasize the need for anti-stigma initiatives and successful therapies to lessen the impact of depression in India.

In this concern, the choice of treatment is also a serious concern. Many therapies have come up as psychological interventions and it is well proven today that psychological interventions play a vital role, because it is important to change the coping styles and the way they cope, think, react and behave to prevent or manage depression. But the suitability of the therapy for individual is very important and should be an important concern for the therapist.

Cognitive therapy (CT) is a therapeutic method that aids patients in eradicating faulty assumptions that underlie particular moods and behaviors. Cognitive therapy is based on the primary idea that thoughts come before feelings and that they are linked to a person's environment, physical response, and subsequent behavior (Dobson, 1989). Therefore, altering a thought that pops into your head in a particular circumstance will alter your mood, behavior, and bodily response.

The idea was introduced by Beck in the 1960s that was soon replaced by Cognitive Behavioral therapy in view of eclecticism and pragmatism (Beck et al., 1979). No doubt that combined approaches have proven to be efficacious yet the cognitions seem to be highly imperative (Tolin, 2010). It is the perspective, thought, and values towards the environmental stimuli and individuals that determine the meaning given to any event and situation; thus, developing an emotional value of these environmental stimuli and events, which in turn determine the 'action and reaction' of the individuals (Batra, 2015). Beginning from Schachter and Singer (1962), in their theory of emotion there are now many studies that have proven the role of meaning one attributes to the events and individual stimuli. And this is what precisely forms the bases of Beck's cognitive therapy, that is, to change the negative meanings given to the situations and events that lead to masturbatory thoughts and the consequent depression.

With this already well-established background and the earlier established effectiveness of CT, the investigators developed an interest in exploring the efficacy and strength of the original idea of Beck and studying the effectiveness of only CT in treating depression in the current scenario. Not many studies exploring the effectiveness of CT alone (as a psychotherapeutic method) in treating depression were found to have been published during the last decade. This strengthened the idea of conducting this piece of research.

Aims and Objectives

To study the effect of cognitive therapy on patients with moderate depression

METHODOLOGY

Design

A single group pre and post experimental design were used.

Sample

30 patients, who fitted ICD- 10's moderate depression criteria for diagnosis (WHO, 1992) and were suitable for the therapy, were selected. Pre and post-assessments were conducted by using Beck's Depression Inventory (BDI) (Beck, Steer, & Brown, 1996).

Inclusion Criteria*:*

1. Meeting the diagnostic criteria for moderate depressive disorder according to ICD-10 (WHO, 1992).
2. Age should range between 20-45 years.
3. Both gender with prior consent for the study.
4. All patients on low doses of antidepressant medications.

Exclusion Criteria*:*

1. If presence of any Psychiatric/ medical illness other than depression.
2. If presence of any psychoactive substance use/ abuse.

Tools:

- **Socio-demographic profile:** Basic data on the socio-demographic characteristics of the patients were gathered using a semi-structured Performa.
- **Diagnostic Criteria for depression:** International Classification of Disease (ICD-10, 1992) diagnostic criteria were used to diagnose the moderate level of depression (WHO, 1992).
- **Beck Depression Inventory (BDI):** The 21 questions on the self-report Beck Depression Inventory have a four-point scale that spans from 0 (no symptoms present) to 3 (very intense). This inventory takes approximately 10 to 15 minutes to complete. It shows high construct validity with medical features of depression. In his study, Beck also found an alpha coefficient value of.92 for outpatients and.93 for samples made up of college students. The BDI-II and Hamilton Depression Rating Scale demonstrated a positive correlation of 0.71, 0.93 for test-retest reliability after one week, and 0.91 for internal consistency (Beck, Steer, and Brown, 1996).

Procedure

The current research data was collected from private psychiatric centers in Haryana during the time period of October 2018 to September 2019, with the due permission of the concerned head. After the approval and permission, 30 patients on a first come first basis,

who were diagnosed with the moderate depressive disorder as per the guidelines of ICD-10, fitted the other inclusion and exclusion criteria, and seemed suitable for receiving CT were chosen for the intervention. After explaining the goals, they obtained their written, informed consent. A suitable Performa was used to record the socio-demographic information. After recording the initial information, Beck Depression Inventory was administered for the pre-assessment of patients. Cognitive therapy was applied in form of individualized sessions. It was an eight weekly session program; however, it took between six to eleven sessions to complete the therapy. The basic steps of CT included the identification of chief complaints and associated maladaptive thoughts pattern that causing the behavioral disturbances, introduction of the Beck's cognitive model of depression including the psycho-education regarding the depression and cognitive restructuring of maladaptive thoughts including negative automatic thoughts, cognitive distortions and maladaptive assumptions, negative core beliefs related to self, environment and future. Major focus was on converting the irrational in rational through socratic dialogue and rebuttal. 1. Musterbatory thoughts 2. Some other techniques including validity testing, Socratic questioning and recording dysfunctional thoughts were the major part of present therapy. Present therapy was adapted from Beck's work on depression (Beck et al., 1987). The post-BDI assessment criteria were recorded after completion of therapy, which is having learned to get rid of MUSTs and other negative and irrational core beliefs. Statistically analyzed results have been discussed below.

RESULTS & DISCUSSION

As already mentioned, the objective of the study was to explore the effectiveness of CT as a single-used approach in treating the moderate level of depression. 30 subjects were given the intervention of a structured module of CT. Before discussing the results, here is a brief of the sociodemographic profile of the selected sample.

Table: 1 - Showing Socio-demographic profile of the subjects

Variables		**Frequency**	**Percent**
Age in years (Mean±SD)	**28±6**		
Gender	Male	10	33.3
	Female	20	66.7
Residence	Urban	23	76.7
	Semi-Urban	2	6.7
	Rural	5	16.7
Family Type	Joint	2	6.7
	Nuclear	28	93.3
Marital Status	Married	15	50.0
	Unmarried	10	33.3
	Separated	1	3.3
	Divorced	4	13.3
Occupation	Agriculture	5	16.7
	Private Job	13	43.3
	Student	2	6.7
	Housewife	10	33.3
Religion	Hindu	12	40.0
	Sikh	15	50.0
	Muslim	3	10.0
Education	Matric	3	10.0
	Higher Secondary	12	40.0
	Graduate	9	30.0
	Postgraduate	6	20.0

Socio-Economic Status (Bairwa, Rajput, and Sachdeva, 2013)	Upper Middle	7	23.3
	Lower Middle	14	46.7
	Upper Lower	9	30.0

Table: 1 illustrates the distribution of age of selected patients. It must be noted that most of the patients were from productive age. The percentage of female patients was 66.7% which was greater than the percentage of male patients 33.3%. The majority of depressive patients belonged to urban areas (76.7%) with 40% having higher secondary qualifications and 30% and 20% being graduates and postgraduates respectively. The sample included both types of patients: working in private setups (43.3%) or managing household (33.3%). The patients came mainly from the Sikh and Hindu communities (50% and 40% respectively) in spite of the fact that the said area is having quite a large number of Muslim populations. It seems that the stigma among them still prevails at least in the region of sample selection and needs to be dealt with. 50% were married and 33.3% were unmarried patients. Findings on Socioeconomic status reveal that the majority of cases belonged to upper-middle and upper-lower classes (46.7% and 30% respectively) whereas too high and too low status were quite low in number on depressive features in comparison to the middle class in the present study. Stigma issues might be playing a role in this too. However, this distribution does not reflect anything very conclusively as the sample may not be representative of the population in the whole region.

Table 2: Showing the Mean, Std. Deviation, t- value, and Level of significance

	Mean	**N**	**Std. Deviation**	**t value**	**P value**
Pre BDI	29.60	30	3.509	20.571	**.000**
Post BDI	9.73	30	4.91		

Table 2 shows that the pre-mean score on Beck's depression inventory was 29.60 which is much higher than the mean on post-assessment, which is just 9.73. This is indicative of an enormous sum of quantitative improvement in depression after the CT intervention. Looking at the norms 29.60 falls in the range of moderate to severe level of depression while 9.73, falls in the minimal range of depression. So paired sample t-test was employed by using SPSS 25.0 version. The value of t being 5.29 is significant at .000 levels.

Thus, the results in Table 2 regarding Beck Depression Inventory reveal that cognitive therapy, as a single psychotherapeutic mode was found highly effective in the management of moderate depression amongst those on pharmacotherapy (low Doses). Prior research on the efficacy of combining cognitive and antidepressant therapy had contradictory findings (DeRubeis et al., 1999; Murphy et al., 1984). But the later studies have proven its efficacy to a large extent and the findings similar to the present study have been reported in the Western literature also (Cuijpers et al., 2014; Segal, Vincent, and Levitt, 2002).

In two thorough meta-analyses, it was demonstrated that cognitive therapy is just as effective—if not more so—than medication alone in treating moderate unipolar depression (Wampold et al., 2002; Gloaguen et al., 1998). According to Lam et al. (2005), cognitive therapy offers patients with mild to moderate depression a viable alternative to antidepressants in terms of cost-effectiveness and recovery. In the earlier studies conducted during the last century, numerous studies have demonstrated the superiority of cognitive therapy over placebo and no treatment (Dobson, 1989; Gloaguen et al., 1998). When it comes to treating depression, cognitive therapy is just as beneficial as interpersonal or short-term psychodynamic treatment, according to two thorough meta-analyses. They also shown

that medicine is poorly effective at treating mild to moderate depression, and that cognitive therapy may even be more successful (Wampold et al., 2002; Gloaguen et al., 1998). To summarize, though much of the recent data are not available on the use of only CT after the trend of CBT, yet some of the earlier pieces of evidence favor it more than pharmacotherapy while the later available evidence suggested that for certain patients, this combination may be more beneficial than each therapy when used separately (Lam et al. 2005; Beck, 2011). However, the efficacy of CT only has not been denied.

Cognitive therapy is the first of an approach in itself that was introduced by Beck in 1960s and he had set the gold standard of scientific testing of psychotherapies and has been in wide use, though he himself added the behavioral components like mastery and pleasure rating. The therapy is based on the basic assumption of the cognitive model that perceptions determine the way of thinking, feeling, and behavior. The cognitive triad is described as "automatic, spontaneous and seemingly uncontrollable negative thoughts about the self, the world or environment and the future (Beck, 1967; Beck et al., 1979; Beck et al., 1987). Later, an umbrella term of CBT was given for the group of methods and techniques of cognitive and behavioral methods of therapy, which became the trend. CBT has been shown to be quite effective in treating the depression (Tolin, 2010).

Inspite of the well-established two-way interaction between behavior and cognition, in the present study it was theorized that role of cognition is the most potent in creating the negative view of the self and the world. Therefore, CT should be as effective and the present study aimed to study the effectiveness of CT in treating depression. The significant reduction in the moderate depression by CT alone was observed amongst those on low doses of anti-depressants even without taking any support of the behavioral techniques except giving homework to record the thoughts and observing oneself. Beck emphasized 'rapport establishment' and 'the client discovering the misconceptions and irrational thoughts by themselves' which form the major difference between cognitive therapies and cognitive behavioral therapies including REBT (Beck et al., 1987). Rebuttal of the irrational thoughts alone was found to exert a magical positive impact that could strengthen the women against misogyny and the new cognitions were found to automatically motivate the women to bring change in her emotion and behavior (Batra, 2015). So, it was expected that merely by learning to identifying the distortions and by learning to rebut one can get rid of depression. This has been proved by the study and the study shows that CT alone is powerful in treating depression.

Actually, as theorized above, the investigators believe that since cognitive restructuring allows for a permanent change in the perception of event and various negative stimuli, the effect should be permanent and may be preventive also. The previous studies by Evans et al. and Lam et al., also support this. Evans et al., (2002) showed that cognitive therapy significantly reduced the risk of relapse compared with discontinuation of the medication. Cognitive therapy was similar to maintenance medication in preventing relapse (Lam et al., 2005). Therefore, it is suggested that the research should be continued to follow up further and study the relapse by comparing it directly with CBT or the behavioral techniques to further understand the role of CT. Further research is needed to study the role of learning to identify and rebut the maladaptive thoughts during adolescence and explore its preventive role in depression and other mental health disorders. Also discovering the illogical and then learning to rebut by oneself seems to add in developing and maintaining self-esteem and this should also be researched further and validated in view of growing stronger and happier individuals.

However, it is concluded that Cognitive therapy with low-dose antidepressant medications was found highly helpful in the management of moderate depression. Cognitive therapy can be considered as a good treatment for depression. This also helps to reduce the stigma and remove the cultural taboos too. It is recommended that cognition being the potent source of forming a negative or positive view of one's world, cognitive therapies should be more frequently used and researched by psychotherapists in the field of clinical and counseling psychology.

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Conflict of Interest

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