EFFECTIVENESS OF COGNITIVE BEHAVIOUR THERAPY IN TREATMENT OF DEPRESSION : A STUDY OF EMPLOYED AND UNEMPLOYED DOWNTRODDEN PERSONS

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Depression is affecting people around the world irrespective of their age, religion, caste, creed, nationality, occupation and gender. Almost everyone experiences depression at one or another time in their lives. According to the report based on a survey conducted in seventeen countries by The World Health Organization (2012), on an average about one in twenty people reported having an episode of depression. World Health Organization (2011) has expressed serious concern recognizing the deadliest association of depression with unemployment and advised to and calls for the academicians, researchers, Nations of the world, and the public at large to chart out the measures to prevent and root out psychopathology during periods of economic crisis especially unemployment. Depression is characterized by negative and dysfunctional cognition, sadness, withdrawal from social relationships, feelings of inadequacy, loss of interest, sleep disturbance, loss of appetite, suicidal thoughts, low self-esteem, negative self-concept, passivity, maladjustment in one’s personal, familial, social and occupational life and a set of physiological disturbances. It affects seriously an individual’s all-round functioning and productivity to a significant level. A host of factors have been associated in the genesis, development, maintenance and prognosis of depression. Out of these, socio-cultural factors play a very key role in the genesis and development of depression.

Employment status of an individual might have an important role in the causation of depression. Depression seems to be often associated with unemployment and poverty. Unemployment is a global problem, and people in developing countries suffer more socio-economically. Sen (2000) has observed that unemployment has very serious repercussions on individual in particular and on family and society in general.
Depression has been studied extensively. It has drawn attention of several reviewers. According to the helplessness model of depression, vulnerability to depression derives from a habitual style of explaining the causes of life events, known as attributional style (Peterson & Seligman, 1984). Depressed patients have a tendency to make internal, stable, and global causal attributions for negative events and, to a lesser extent, the attribution of positive outcomes to external, specific, and unstable causes Pardoen et al., 1993).

Impairment in social relationships, dysfunctional cognition, gender, economic status, and temperament has been suggested as involved in the emergence of mood disorders (Depue & Monroe, 1996).

Sen (2000) stated that “Unemployment can play havoc with the lives of the jobless, and cause intense suffering and mental agony. Empirical studies of unemployment brought out how serious this effect can be. Indeed, high unemployment is often associated even with elevated rates of suicide, which is an indicator of the perception of unbearable that the victims experience.”

Unemployed workers are twice more likely, as compared to their employed counterparts, to experience psychological problems such as depression, anxiety, psychosomatic symptoms, low subjective well-being and poor self-esteem (Paul & Moser, 2009). High unemployment and growing income inequalities are also key factors in declining social climate (International Labour Office, 2010). The United Nations (2010) claimed that growing social inequalities fuelled by extended global unemployment will increase social unrest and tension and a growing sense of unfairness.
Cognitive behavior therapy emerged, in the 1950s, Albert Ellis observed that whenever we become upset, it is not the events taking place in our lives that upset us, it is the beliefs that we hold cause us to become depressed, anxious, enraged etc. Aaron Beck (1960) proved that cognition as a mental process plays significant role in maintaining depressive illness. Cognitive therapy for depressive disorder is a complex procedure combining behavioural and cognitive techniques, with emphasis on procedures for changing ways of thinking. Cognitive behaviour therapy (CBT) has become effective main-stream psychosocial treatment for many emotional and behavioural problems.

Kuruvilla, (1980) asserted that CBT has had its impact on the Indian scene also. There are few psychiatrists and many psychologists practicing it, but publications in this field in Indian Journal of Psychiatry have been few. He reported 17 patients with major depressive disorder showed that CBT can be practiced in Indian setting also. Of the 14 patients who completed the course, 11 showed marked improvements and three had partial improvement in depressive symptoms.

Aaron Beck’s cognitive approach is designed primarily for the treatment of depression. Its effects with moderately depressed patients are about the same as those of antidepressant drugs (Rush et al., 1977; Blackburn 1981). Other studies have shown cognitive therapy to be as effective as antidepressant medication (Hollon et al., 1992) or combined cognitive along with drug treatment (Evans et al., 1992; Hollon et al., 1992). Yet other studies suggest that cognitive therapy adds to the efficacy of standard antidepressant drug treatment (Bowers, Bishop & Dow, 1989; Miller, Norman, Keitner, 1990).
Cognitive therapy changes the negative ideas, unrealistic expectations, and overtly critical self-evaluations that create depression and sustain it. Cognitive therapy helps the depressed persons recognize which life problems are critical, and which are minor. It also helps patients to develop positive life goals, and do a more positive self-assessment. Negative thoughts and behavior predispose an individual to depression and make it nearly impossible to escape its downward spiral. When patterns of thought and behavior are changed, according to CBT practitioners and researchers, mood is also changed (Goldberg, 2012).

Statement of the problem

According to a study about 2% of the city population in India is affected with depressive disorders (Mohammad et al., 2006). Of these, about 1.8% people are inflicted with major depressive disorders, and 0.2% with mild depression. It is estimated that by 2020, depression will be the second leading cause of world disability (WHO, 2001); and by 2030, it is expected to be the largest contributor to disease burden on individuals, families, societies, and ultimately on nations (WHO, 2008). These striking, shocking and alarming figures show the public health importance of depression. Hence, research and intervention is extremely important to lessen this disability.

Depression seems to be often associated with unemployment and poverty. Unemployment is a global problem, and people in developing countries suffer more socio-economically. Sen (2000) has observed that unemployment has very serious repercussions on individual in particular and on family and society in general. Due to this, economy is adversely affected at all levels. Cognitive Behaviour Therapy is a proven Psychotherapeutic modality in the treatment of depression (Beck, 1985; Segal,
Gemar & Williams 1999). CBT is aimed at curbing depression through cognitive and behavioural changes. Therefore, a study of treatment of depressive illness through CBT for unemployed and employed people would be of special significance. The present study deals with this issue.

In view of the above, the researcher proposes to study the effectiveness of Cognitive Behaviour Therapy in the treatment of depression of employed and unemployed persons. There is a dearth of research endeavors undertaking the scientific inquiries concerned with roles of employment status of people in the genesis, development and maintenance of depression with the objective to test remedial efficacy of the cognitive behavior therapy in Indian socio-cultural milieu.

**Aims and objectives:**

The chief objectives of the present study are outlined as under:

1. To assess and compare the levels of depression of participants undergoing experimental and control group conditions.

2. To assess and compare the levels of depression in unemployed and employed participants.

3. To inquire into the nature, extent and dynamics of the remedial effectiveness of Cognitive Behaviour Therapy in the treatment of depression of participants.

4. To inquire into the nature, extent, direction and dynamics of the remedial efficiency of Cognitive Behaviour Therapy in the treatment of depression of the participants of the experimental and the control group conditions on the follow-up measure.

5. To inquire into the nature, extent and endurance of the remedial efficiency of Cognitive Behaviour Therapy in the treatment of depression of unemployed
and employed participants of the experimental group condition on the pre-test, the post-test and the follow-up measures.

6. To conduct a relative evaluation of the efficacy of the cognitive behavior therapy on the participants of the experimental group observed on the pre-test, the post-test and the follow-up measures.

7. To find out the intricacies of the interactive roles the condition, the employment status and the measure of the participants in acquisition of depression scores by the participants.

**Hypotheses:**

Taking into account the issues discussed in the detailed review of the literature, the following hypotheses were formulated for testing their worthiness and empirical accuracy with the help of the analyses of the data collected in the present study:

1. The participants comprising the experimental and the control groups would not differ significantly in their mean depression scores on the Pre-test measure.

2. The unemployed and employed participants would not differ significantly in the acquisition of their mean depression scores on the Pre-test measure.

3. The participants comprising experimental group would evoke lower mean depression scores as compared to their control group counterparts on the post-test measure.

4. The participants of the experimental group condition would significantly achieve higher mean depression score as to those who constitute the control group on the follow-up measure.
5. The unemployed and employed participants of the experimental group would significantly differ in their levels depression on the pre-test measure.

6. The unemployed and employed participants of the experimental group would significantly differ in their levels depression on the post-test measure.

7. The unemployed and employed participants of the experimental group would significantly differ in their levels depression on the follow-up measure.

8. The participants of the experimental group observed on the post-test and the follow-up measures would emit significantly higher mean depression scores as compared to the participants observed on the pre-test measure.

9. The condition, the employment status and the measure would have significant interaction effects on culmination of the depression scores of the participants.

METHODS AND PROCEDURE

The present study attempted to explicate the role of employment status of the participants and effectiveness of the cognitive behaviour therapy in the acquisition, maintenance and treatment of depression.

In the initial phase of study, 248 patients diagnosed with depression were drawn from the Department of Mental Health and Behavioural Sciences of the Max Balaji Hospital, Padpadganj, Delhi, for the present study. 88 patients were screened out initially due to their varying inability to meet the purpose of present research work. Finally 160 patients diagnosed with depression were included as a sample for the study. Out of the total 160 patients, 80 were employed and 80 were unemployed. The employed and unemployed participants were randomly assigned equally to the experimental and control groups.
The total numbers of male participants was 136, with the age range of 33.12. The total numbers of female participants were 24, with the age range of 31.25. The representation of male sample was more as compared to female. It was because of the visits of participants at the hospital randomly. The diagnosis of depression among patients was done by senior psychiatrist and senior clinical psychologist on the basis of the criteria of DSM-IV prescribed for depressive disorder.

Tools for data collection

The tests and questionnaire used in the present study were as follows:

1. Beck Depression Inventory (BDI-II)

   The Beck Depression Inventory–Second Edition (BDI-II) is a 21-item self-report instrument developed by Aaron Beck (1996) for measuring the severity of depression among adults and adolescents aged 13 years and older. This version of the inventory (BDI-II) was developed for the assessment of symptoms corresponding to criteria for diagnosing depressive disorders listed in Diagnostic and Statistical Manual of Mental Disorders; Fourth Edition (DSM-IV, 1994).

Interview Schedule

   It was the self constructed instrument to collect subjects’ demographic details, and symptomatic information. This instrument collected subjects’ primary personal details such as name, age, sex, education, occupation, residence, Caste, working status viz., employed & unemployed, socio-economic status (SES) viz., lower, middle, and upper income group.
Design of the study

The present investigation has followed a Pre test-Post test design i.e., the employed and unemployed participants in the study were randomly assigned into two groups namely experimental and control. Both groups of participants were equivalent in all respect, except the invention of CBT for the experimental group. Baseline assessment i.e. pre-test of depressive symptoms was taken in the beginning of the study the both groups. The further assessment was done after the intervention of CBT, called as post-test assessment of depression. The follow-up of subject was done as the third level of analysis to assess the durability of the treatment effect by CBT.

Procedure for data collection

Data collection was completed in four phases. In the first phase, each participant in experimental and control groups diagnosed with depression were interviewed individually and their depression level was assessed and briefed about the study. In Second phase, patients in experimental group were taken for CBT intervention. They were given CBT for six sessions individually within a period of three months. In third phase, both the groups viz., experimental and control group were again given BDI-II as part of ‘post-test assessment of depression’ so as to collect their score on the depression scale. In fourth phase, finally both the groups viz., experimental and control group were measured third time on BDI-II as part of follow-up assessment.

Analysis of Data

The obtained scores were subjected to different descriptive procedures, with the help of the Statistical Package for Social Sciences-Version sixteen.
Results

The present study attempted to explicate the remedial role of Cognitive Behavior Therapy (CBT) in treatment of participants with diagnosed Depression and mediating role of employment status thereof.

Section I:

The cell-wise mean depression scores with their corresponding SDs are as follows:

1. The unemployed participants exhibited higher mean depression score as compared to their employed counterparts in experimental condition. The trend is reverse in control condition, where the employed participants evoked greater mean depression score.

2. Irrespective of experimental and control conditions the unemployed participants evoked higher mean depression scores as compared to the employed ones.

3. The participants of the experimental group in follow-up measure exhibited lower mean depression score as compared with those of unemployed ones. The control group of the participants of the follow-up condition indicated that employed participants emitted lesser mean depression score as compared to their unemployed counterparts.

Section II:

The details of the mean depression scores, SDs and t-values of participants in terms of the conditions and employment status for Pre-test measure are presented below:
1. The mean depression score of the participants of the experimental condition on the Pre-test measure was higher as compared to the mean depression score of the participants of control condition with non-significant value of the t-test.

2. The mean depression score of unemployed participants was higher as to those participants who were employed and statistically non-significant value of the t-value was reported.

3. The participants working in the experimental group evoked higher mean depression score as compared to the participants of the control group on the Post-test measure. The value of the t-test was found to be statistically significant.

4. The participants working under control group condition emitted higher mean depression score in comparison to the participants of experimental group on the post-test measure. The t-test resulted in a significant value.

5. The unemployed participants of the experimental group condition whose depression scores had been taken on The Pre-test measure outperformed on the Depression Inventory in comparison to those who were employed and worked under the same condition. The t-test was conducted to test the significance between these mean depression scores which came to be statistically significant.

6. The employed participants of the experimental group condition evoked lesser mean depression score as compared to their unemployed counterparts. The mean depression scores of these participants were found to be statistically significant.
7. The unemployed participants of the experimental group condition who underwent the Follow-up measure evoked higher mean depression score as compared to the employed participants of the experimental group condition on the same measure. The computed value of t-test was significant.

8. The participants of The Pre-test measure exhibited higher mean depression scores as compared to the participants of the Post-test counterparts. The value of t-test was significant.

9. The mean depression score of the participants observed on the post-test measure evoked higher mean depression score as compared to those who were undergone on the Follow-up measure. Their significance of mean difference could not get the desired value of t.

10. The participants comprising the experimental group condition emitted higher mean depression score on the Pre-test measure contrary to the participants assessed on the Follow-up measure. The two mean depression scores also differed significantly as the t value exceeds the desirable level of t value.

**Section III: The Analysis of Variance (ANOVA)**

The data of the study were subjected to a 2 (Experimental, Control) X 2 (Unemployed, Employed) X 3 (The Pre-test, The Post-test, The Follow-up) Analysis of Variance (ANOVA) repeated measures on the last factor. The chief findings of the study are as under:

1. The F-value of factor A (the experimental and the control conditions) have achieved the level of statistical significance required to be accepted.
2. The F-value of Factor B which symbolized employment status of the participants also touched the accepted level of statistical significance. The result indicated that the employment status of the participants also had enough vitality to create such gradient of force to fabricate differential effects on the mean depression scores of the unemployed and employed participants. The trend was again recurred in the case of F-value demonstrating interaction effects of conditions X employment status.

3. The computed values pertaining to the within Ss source of variation tell another part of the same story. The F-value of Factor C achieved the required level of statistical significance.

4. The F values of interactions of AXC and BXC also demonstrate the same trend of statistical significance of accepted levels.

**Simple effect Analysis of Variance:** The results are presented below:

1. The results showed statistically significant simple effect of condition (A) for unemployment and for employment, employment (B) for experimental group condition and statistically non-significant simple effect for control group condition, respectively.

2. The statistically non-significant simple effect of employment status (B) for the pre-test (c_1) measure and statistically significant simple effects of employment status (B) for the post-test (c_2) measure and for the follow-up (c_3) measure. Statistically significant simple effect of measure (C) for the unemployment (b_1) condition and the employment condition.
3. The statistically non-significant simple effect of condition (A) for the pre-test \(c_1\) measure and statistically significant simple effects of condition (A) for the post-test \(c_2\) measure and for the follow-up \(c_3\) measure. Statistically significant simple effect of measure (C) for the experimental \(a_1\) group condition and the control \(a_2\) group conditions.

**Discussion**

The present study extends the theory that the effects of The Cognitive Behaviour Therapy were strongly moderated by the employment status of the participants which were clearly evinced in the three measures i.e. the pre-test, the post-test and the follow-up, under which the depression scores were taken for statistical treatments and comparisons.

The results corroborated that the unemployed and employed participants did not differ significantly in the acquisition of their mean depression scores on the Pre-test measure. Likewise, the unemployed and the employed participants also did not differ in their acquisition of the mean depression scores on the pre-test measure. In other words, they can be said to belong to the same population and subsequent variations in their depression scores can easily be attributed to the manipulation of the Cognitive Behaviour Therapy. In the second phase of the research endeavor, an attempt was made to spell out the effects of The Cognitive Behaviour Therapy on the participants. The mean depression scores of the participants comprising the experimental and the control groups on the post-test measure differed significantly leading to the conclusion that the cognitive behaviour therapy actually worked well with the reliable degree and helped to attenuate the intensity of depression of the participants of the experimental group condition.
The statistically significant t-value testified difference between mean scores of these groups signifies the effectiveness and endurance of the cognitive behavior therapy.

Beck (1960) developed the first effective forms of cognitive behaviour therapy (CBT) turning it into an effective and main-stream technique of treatment for many emotional and behavioural problems. Cognitive therapy techniques were developed and eventually integrated with behavioural approaches to form cognitive – behaviour treatment for a variety of psychological disorders, primarily depression. Cognitive therapy was developed as an exodus from traditional therapeutic approaches to mental illness. Aaron Beck argued that negative emotionality and behaviors patterns are primarily a consequence of distorted thoughts and beliefs. Thus, Cognitive Behaviour Therapy involves a set of strategies from cognitive therapy and behavioural activation (Beck, Rush, Shaw & Wmery, 1979; Lewinsohn, Biglan & Zeiss, 1976).

Further, the extensive empirical support for the cognitive behavior therapy, has also received wide support (Elkin, Gibbons, Shea & Shaw, 1996). The role of cognitive behavior therapy and its efficacy in the treatment of psychotic conditions, dysthymia, obsessive-compulsive disorder, personality disorders, hypochondriasis, post-traumatic stress disorder, and alcoholism have also been reported to be satisfactory (Kuruvilla, 2000). The mean depression scores of unemployed and employed participants of the experimental group were statistically different and indicated that the participants comprising unemployed and employed groups differed significantly in their levels of depression on the Pre-test measure. The implication of this finding is that the unemployed participants reflected the reality they were facing.
in their life as a result of lack of employment opportunity. To appreciate the extent of effectiveness of the Cognitive Behaviour Therapy on the unemployed and employed participants of the experimental group condition, the findings authenticated significant difference in their levels of depression.

The results indicate that the employed participants got more profited by The Cognitive Behaviour Therapy as compared to those who were unemployed. These results bear very important theoretical and practical implications as they demonstrate for the personality characteristics and cognitive structure on which the unemployed and the employed participants differed. Here a very important question arises as to how and why the employed get more benefitted than their unemployed counterparts. The reason behind the difference in benefits accrued in favour of employed participant as compared to their unemployed ones may be due to the differences in the former’s structure of self-esteem, self-concept, familial and social supports, financial soundness and differences in the set of etiological factors in relation to the later.

The mean depression scores of the unemployed and employed participants of experimental group condition observed on the Follow-up measure also significantly differed which extends the notion that the employment status of the participants reliably determined the nature and extent of the effectiveness of the cognitive behavior therapy. These results have also a great potency to fulfill the gap of knowledge in theory and practice the cognitive behavior therapy as well as to nurture the quest incorporated in this research project and beyond. This difference in the mean depression scores pointing towards endurance of the remedial effects of the cognitive behaviour therapy of unemployed and employed on the follow-up measure
signifies the difference in their degree and levels of self-control, optimism, self-efficacy, self-discipline, nature of helplessness and the differences in other personal, marital, familial, and social factors as a result of which they benefited and endured the same they received from the therapeutic intervention. The results of Analysis of Variance and the simple effect ANOVs extend the notion that the employment status of an individual has great importance in the genesis, development and maintenance of psychopathology especially depression. The employment status of an individual is a precursor to many personal, familial, social, physical and psychological problems.

The negative cognition is chief characteristics of depression and the unemployed persons have plentiful amount of negativity in their cognitive structure. Beck (1967) explicitly attributed the development of cognitive triad i.e. negative beliefs of self, of one’s future and of environment acting as causal agent of depression. The unemployed persons feel helpless in facing their challenges of life. As per Peterson and Seligman (1984), the helplessness makes a person vulnerable to depression which derives from a habitual style of explaining the causes of life events, known as attributional style. The unemployed persons also face familial and marital conflicts. The unemployed persons are twice more likely to experience psychological problems such as depression, anxiety, psychosomatic symptoms, low subjective well-being and poor self-esteem as compared to their employed counterparts (Paul & Moser, 2009).

The present research also pointed out that along with unemployed, the employed participants also demonstrated moderate levels of depression indicating roles of another set of factors contributing in the acquisition of depression. The life of
the employed person actually should not be understood to be free from challenges. They also face challenges but of somewhat different nature and dynamics. The causal factors associated with the depression of employed persons have also been studied and reported that work stress, organizational relationships, competition, job-dissatisfaction and financial aspects of the job create challenges before the employed and generate stress on the part of such persons.

From the above findings of the present research, it can easily be concluded that unemployment generally makes a person fail to congregate the demands of personal, familial and social expectations resulting into a negative cognition and dependence on others. This state of affairs adversely affects their behavior, well-being and mental as well as physical health. In addition, it makes defenseless to maladaptive behavior patterns which, in turn, are also damaging to self, family and society.

To sum up the findings of the present research, it can be concluded that although the genesis, prevalence, development and etiology of the psychopathology of depression is a combination of dynamic and multiple factors interwoven in a very complex manner and any such conclusive remarks need sufficient precaution and versatility, the abiding role of employment status of an individual in the etiology of depression is reliably predicted here. The findings of the study also advocate the impeccable roles of the cognitive behaviour therapy in effectively extending remedial help in the alleviation of the havoc of depression.

The present study also suffered with some limitations. The inclusion of only the depression participants, limited area of the National Capital Territory of Delhi, the lack of use of other psychotherapeutic intervention techniques, limited sample,
excluded children, old aged and people with varied physical disabilities are some of the chief limitations of the study.

The present study has come up with some genuine suggestions for future researchers. The future researches should include more representative sample, include other mental disorders and include other socio-cultural factors. Increased government funding and the cross-cultural study of depression in relation to employment status are needed. Such efforts will help to uncover and evaluate the role of the socio-cultural factors in modulating the expression and intensity of depression.

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