

Research Paper

Efficacy of Acceptance and Commitment Therapy in Coping skill and Problem Solving among Depression

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ABSTRACT

Background: Depressive disorder represents a key contributor to the global burden of mental illness due to its relatively high lifetime prevalence, frequent comorbidity, and disability rates. Acceptance and Commitment Therapy is an intervention aimed at improving psychological flexibility and the ability to adapt to change so as to make the individual able to deal with various problems that become stressors. **Aim:** The present study aims to assess and compare the coping skill and problem solving in the depressive patients pre and post intervention on the application of acceptance and commitment therapy. **Methods:** This was a quasi-experimental study with pretest-posttest and follow-up design with control group. The sample consists of a total of 20 patients were diagnosed with depression using a purposive sampling selected from the outpatient department of the RINPAS, Kanke, Ranchi, India. Further these patients divided into two groups as experimental group (10) and control group (10). Tools used Brief coping and Problem-Solving questionnaire. **Results:** Result of the current study revealed that the experiment group of depression patients improved in different domains of problem solving and coping after the application of acceptance and commitment therapy treatment and exhibited enhanced problem solving and coping skills as compared to control group. **Conclusion:** Acceptance and commitment therapy allows patients to have an optimistic attitude on life, accept difficult events, deal with the present, and adopt suitable behaviours to cope with negative thoughts and feelings by enhancing psychological flexibility.

Keywords: *Acceptance and Commitment Therapy, Depression, Coping Skill and Problem Solving*

Depression is a characteristic as loss of interest, sleep problem, low self-care, poor concentration or anxiety (NICE, 2009). According to Sadock and Kaplan depression is seen as a multifaceted condition that impairs interpersonal, social, and vocational functioning (Sadock and Kaplan, 2007). Depression is a common mental disorder cutting across age, gender and socioeconomic status in India and across the world. Globally, the burden of depression has been rising (Murray et al., 2015) and major depressive disorder (DD) was the third leading cause of disability in 2015 (Vos et al., 2016). Estimated global prevalence of depressive episode is from 3.2% to 4.7% (WHO, 2017). The lifetime and

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current prevalence of depressive disorder in India was estimated at 5.25% and 2.68% (Arvind et al., 2019).

The third wave of behavioral therapy is acceptance and commitment therapy (ACT), a distinct, experience-based psychological intervention (Fernández-Rodríguez et al., 2021; Ruiz et al., 2020). ACT has therapeutic effects and is used to address and manage symptoms such as psychiatric-psychological problems, pain, depression, and mixed anxiety (Lu and Fan, 2017; Waters et al., 2020).

Coping is defined as the mobilization of thoughts and behaviors to control stressful situations both internally and externally (Folkman & Moskowitz, 2004). It is a phrase used specifically to describe the conscious and intentional mobilization of acts, as opposed to "defense mechanisms," which are unconsciously or subconsciously adaptive responses that both try to reduce or tolerate stress (Venner, 1988). Research in psychiatry and psychology is increasingly focused on the relationship between stress and depression, how it affects depression, how it contributes to the progression of the illness, and the elements that mediate this relationship (Sariusz-Skapska et al., 2003). The development of depressive symptoms and the progression of the illness are highly correlated with coping mechanisms employed when under stress (Biggs et al., 2017).

Problem-solving skills are the capacity to recognize problems, generate and evaluate solutions, and implement the best solutions (Jonassen, 1997). It is the associations with depressive disorders and symptoms. Depressed individuals often exhibit a negative orientation toward problems in living and deficits in specific problem-solving skills on self-report inventories and performance-based measures (Dixon et al., 1993; Reinecke et al 2001).

The majority of studies on ACT were carried out abroad. However, there are relatively few studies conducted in India and even fewer. Therefore, this study was conducted to close this knowledge gap in order to better understand coping skill, and problem solving in the patients of depression with help of acceptance and commitment therapy.

Objective of Study

- To study the application of acceptance and commitment therapy in improving coping skills between experimental and control group of patients with depression.
- To study the application of acceptance and commitment therapy in improving Problem solving skills between experimental and control group of patients with depression.

Hypothesis of Study

- There will be no significant deference at pre and post intervention between experimental and control group of patients with depression after application of acceptance and commitment therapy in improving the coping skills.
- There will be no significant deference at pre and post intervention between experimental and control group of patients with depression after application of acceptance and commitment therapy in improving the problem-solving skills.

METHODS AND MATERIALS

The study was Pre and Post design with Control group. A total of 20 individuals diagnosed with depression patients selected for the study from RINPAS, outpatient department. Purposive sampling technique was used. Participants divided into experimental and control group equally. Ten depression cases assigned as experimental group who given acceptance and commitment therapy with treatment as usual and ten depression patients assigned as control group who given treatment as usual.

Inclusion and Exclusion Criteria

Inclusion criteria: Patients diagnosed with typical depressive episodes of all three varieties described below mild (F32.0), and moderate (F32.1), the individual usually suffers from depressed mood per ICD-10, age range minimum 18-45 years, gender (both male and female), duration of illness at least one year. Educated at least primary level and are able to comprehend the instruction, Patient who will give consent for study, Patient who are cooperative and patient who are in remission.

Exclusion criteria: Uncooperative or unwilling to give consent, history of severe medical problem, patient age below 18 years or above 45 years and co morbid substance dependence (except nicotine & caffeine).

The Brief Coping Scale: The Brief COPE inventory was developed by Carver et al. (1989) to assess a broad range of coping responses. The Brief Coping Scale was developed by Carver in the year 1997. It is the abbreviated version of the Coping Inventory. It consists of 28 items and measures 14 areas of coping which can be further clubbed in to problem focused coping, adaptive emotion focused coping and maladaptive emotion focused coping. The dispositional version of COPE is a widely used inventory with its Cronbach's alpha is more than 0.60. Test retest reliability is 0.42 to 0.89 in different scales with satisfactory construct validity.

Problem Solving Inventory (PSI): Problem Solving Inventory developed by Heppner and Petersen (1982) to measure people's perceptions of their personal problem-solving behaviours and attitudes will be used in the present study. The PSI is composed of thirty-two 6- point Likert-type items, ranging from 1= Strongly Agree, 2= Agree, 3= Partially Agree, 4= Partially Disagree, 5= Disagree, 6= Strongly Disagree. Lower scores indicate assessment of oneself as a relatively effective problem solver, whereas higher scores indicate assessment of oneself as a relatively ineffective problem solver.

Statistical Analysis

The statistical analysis was done using IBM Statistical Packages for the Social Science (SPSS) software package for windows, Version 25.0. Armonk, New York, United States: IBM Corp. Descriptive statistics was used and the difference between study variables in both group was calculate using mean and SD (Mann Whitney Test). At the start of the investigation, the significance levels of $p < 0.05$ and $p < 0.01$ were determined.

RESULTS

Table 1 illustrates the baseline assessment and post intervention assessment score and comparison between experimental and control group among depression patients on brief coping scale. It was clearly evident that experiment group of depression patients improved in different domains of brief coping scale after the application of acceptance and commitment

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therapy treatment and exhibited enhanced coping skill as compared to control group and difference was significant at 0.01 level on problem focus coping (Experimental group: Mean and SD= 6.90±1.79; Control group: Mean and SD= 1.50±0.70; U=0.00; Z= 3.851, P<0.01), emotional focus coping (Experimental group: Mean and SD= 8.30±2.66; Control group: Mean and SD= 1.80±2.78; U=0.00; Z= 3.797, P<0.01), avoid coping (Experimental group: Mean and SD= 7.60±1.42; Control group: Mean and SD= 1.90±1.28; U=0.00; Z= 3.811, P<0.01), and coping total scores (Experimental group: Mean and SD= 22.80±4.10; Control group: Mean and SD= 5.20±2.97; U=0.00; Z= 3.787, P<0.01). It was clearly evident from the table that both groups differ significantly and high mean scores obtained by experimental participants indicates overall improvement in coping skills.

Table-2: Comparison of difference between Baseline Assessment and Post Intervention Assessment of experimental group and control group among patients with depression on Brief Coping Scale

Variables	Experimental Group (Mean ± SD)			Control Group (Mean ± SD)			Mann Whitney Test	
	Baseline Assessment	Post Intervention Assessment	Difference (Baseline-Post)	Baseline Assessment	Post Intervention Assessment	Difference (Baseline-Post)	U	Z score
Problem focus coping	13.50±3.77	20.40±3.13	6.90±1.79	14.90±2.33	16.40±2.54	1.50±0.70	0.00	3.851**
Emotional focus coping	16.90±3.66	25.50±3.65	8.30±2.66	15.70±2.71	17.50±3.83	1.80±2.78	0.00	3.797**
Avoid coping	13.90±4.01	21.50±3.65	7.60±1.42	14.90±4.11	16.20±3.58	1.90±1.28	0.00	3.811**
Brief Coping Scale	44.30±10.8	67.10±8.65	22.80±4.0	44.90±5.60	50.10±7.04	5.20±2.97	0.00	3.787**

*SD = Standard Deviation, Exp.= Experiment group, Cont.= Control Group, **= Significant at the 0.01 level,*

Table 2 illustrates the baseline assessment and post intervention assessment score and comparison between experimental and control group among depression patients on problem solving inventory. It was clearly evident that experiment group of depression patients improved in different domains of problem solving after the application of acceptance and commitment therapy treatment and exhibited enhanced problem solving skill as compared to control group and difference was significant at 0.01 level on problem solving confidence (Experimental group: Mean and SD= 19.20±5.42; Control group: Mean and SD= 5.80±1.47; U=0.00; Z= 3.811, P<0.01), approach Avoidance style (Experimental group: Mean and SD= 19.80±5.57; Control group: Mean and SD= 4.60±1.42; U=0.00; Z= 3.804, P<0.01), personal Control (Experimental group: Mean and SD= 9.90±1.28; Control group: Mean and SD= 4.10±1.91; U=0.00; Z= 3.835, P<0.01), and total scores of problem solving (Experimental group: Mean and SD= 48.90±6.65; Control group: Mean and SD= 14.50±2.83; U=0.00; Z= 3.795, P<0.01). It was clearly evident from the table that both groups differ significantly and low mean scores obtained by experimental participants indicates overall improvement in problem solving skills.

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Table-2: Comparison of difference between Baseline Assessment and Post Intervention Assessment of experimental group and control group among patients with depression on Problem Solving Inventory

Variables	Experimental Group (Mean ± SD)			Control Group (Mean ± SD)			Mann Whitney Test	
	Baseline Assessment	Post Intervention Assessment	Difference (Baseline-Post)	Baseline Assessment	Post Intervention Assessment	Difference (Baseline-Post)	U	Z score
Problem solving confidence	63.60±4.24	44.40±4.83	19.20±5.42	63.50±6.32	57.70±6.46	5.80±1.47	0.00	3.811**
Approach Avoidance style	40.70±3.65	20.90±5.04	19.80±5.57	40.80±4.23	36.20±4.15	4.60±1.42	0.00	3.804**
Personal Control	28.40±2.67	18.50±2.91	9.90±1.28	28.50±2.67	24.40±1.89	4.10±1.91	0.00	3.835**
Problem Solving Inventory	132.70±8.19	83.80±8.03	48.90±6.65	132.80±8.70	118.30±8.95	14.50±2.83	0.00	3.795**

*SD = Standard Deviation, Exp. = Experiment group, Cont. = Control Group, ** = Significant at the 0.01 level,*

DISCUSSION

The present study attempted to evaluate the effectiveness of ACT on coping strategies in patients with depression. The experiment group of depression patients improved in different domains of brief coping scale such as problem focus coping, emotional focus coping and avoid coping after the application of acceptance and commitment therapy treatment and exhibited enhanced coping skill as compared to control group of depression patients. These results are consistent with earlier studies that found ACT strategy is reflected by psychological coping skills, which is the increase coping capacity to maintain or modify behavior when it is used to further worthwhile goals in a particular situation (Hayes et al., 2011; Dindo et al., 2017; Lu and Fan, 2017). The goal of ACT intervention is to help the depression patients in developing flexible coping mechanisms that don't intensify problems or prevent them from engaging in fulfilling activities (Østergaard et al., 2019; Bai et al., 2020). Patients with comorbid depression and migraines can improve better emotionally and physically functioning through ACT intervention (Dindo et al., 2012; Twohig et al., 2017; Dindo et., 2014).

The present study also attempted to evaluate the effectiveness of ACT on problem solving skills in depression patients. The experiment group of depression patients improved in different domains of problem solving such as problem solving confidence, approach Avoidance style and personal Control after the application of acceptance and commitment therapy treatment and exhibited enhanced problem solving skill as compared to control group. These results are consistent with earlier studies, Dindo et al., (2017) revealed the ACT model also helps the growth of increased awareness of one's actions and if those actions are working in terms of effectively solving the problem and advancing one towards desired goals (Gloster et al., 2020; Isarizadeh et al., 2022). Twohig et al. (2017) found the person with a depressive disorder tries to manage or avoid their unpleasant emotions through the ACT intervention. Similar results were reported by A-tjak et al., (2020) ACT encourages patients to have a positive outlook toward their lives, to accept negative experiences, to deal with the present, and to adopt appropriate behaviors to cope with negative thoughts and feelings.

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Limitation

There are some limitations. It is time bond study sample size was small which limits the generalization of findings. Thus, a large sample can be used in the future study to obtain the result which can be generalized to depression population. The index study was conducted only outdoor institutionalized depressive patients. The in patients can also be included in the future study. Durability of Acceptance and Commitment Therapy could not study as no follow up was done.

CONCLUSION

The ACT-based treatment protocols used in this study and empirical evidence show the ACT is very usefulness intervention of the depression disorder. The present study attempted to evaluate the effectiveness of ACT on problem solving and coping skills in depression patients. The experiment group of depression patients improved in different domains of problem solving and coping after the application of acceptance and commitment therapy treatment and exhibited enhanced problem solving and coping skills as compared to control group. ACT allows patients to have an optimistic attitude on life, accept difficult events, deal with the present, and adopt suitable behaviours to cope with negative thoughts and feelings by enhancing psychological flexibility.

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Conflict of Interest

The author(s) declared no conflict of interest.

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