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A Comparative Effectiveness of Acceptance and Commitment Therapy and Group Cognitive Therapy for Major Depressive Disorder

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Abstract

***Background*:** Acceptance and commitment therapy (ACT) is a new method of psychotherapy for major depressive disorder (MDD). The aim of this experimental study is evaluating the effectiveness of acceptance and commitment therapy and cognitive therapy.

***Materials and Methods*:** In this randomized clinical trial, 19 depressive out-patients were randomly divided into 2 groups (acceptance and commitment therapy and cognitive therapy). Twelve therapeutic sessions administered in consulting center of Tehran University twice a week. All the subjects were tested by Beck Depression Inventory (BDI-II)) and the Ruminative Response Scale (RRS) before and after the treatments. Data were analyzed by multivariate analysis of covariance (MANCOVA).

***Results*:** The results show no significant differences between the two groups in terms of the variables of depression and rumination.

***Conclusion*:** Overall, the results suggest that ACT is an effective treatment, the effectiveness of which appears equivalent to that of CT.

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Introduction

In the last decades many effective treatments for depression have been developed [1]. The term cognitive behavior therapy reflects a broad collection of evidence-based approaches that have become the most widely utilized and researched of all psychotherapeutic methods [2], with Beckian cognitive therapy (CT) representing the most widely used and empirically supported form of CBT (Cognitive Behavior Therapy) [3]. Beck's cognitive model [4] says that: experience in people leads to form assumptions or images about the world and themselves. Whenever these assumptions get inflexible they will transform to a non-effective structure that will make him prone to depression.

ACT (Acceptance and Commitment Therapy) as a newer subcategory of CBT, ACT has received the most attention in terms of empirical study. In ACT the tendency to behave in accordance with the content of thoughts is called "cognitive fusion"; it is via "defusing" that clients learn to hold thoughts more lightly and choose action based on values instead of the content of thoughts [5]. An example of fusion, relevant to depression, is high investment in finding the cause of one's depression and repeated attempts to eliminate the cause. The focus on the cause may increase rumination and depression [6]. Although ACT by defusing and mindfulness interrupts the elaborative processes that feeds rumination and maintains negative mood, no study has investigated the effect of acceptance and commitment therapy on rumination.

ACT has demonstrated preliminary effectiveness across a range of problem behaviors, including mood disorders. In a small RCT, Zettle and Rains [7] compared the differential effect of ACT in group format versus the previous two CT versions applied also in groups. There were not statistically significant differences at post-treatment or at 2 months follow-up. However, a recent analysis have found a medium differential effect size between ACT and the complete version of CT. Zettle et al. [8] have conducted a meditational analysis concluding that the level of cognitive fusion at post-treatment mediated the effect at follow-up. ACT was shown to produce greater reductions in levels of self-reported depression.

In one of the first comparisons of the long-term effectiveness of traditional cognitive behavior therapy (CT) and acceptance and commitment therapy (ACT), 132 anxious or depressed outpatients were randomly assigned to receive either CT or ACT, and were assessed at post treatment and at 1.5 years follow-up. The two treatments were equivalently effective at post treatment according to measures of depression. However, results suggest that treatment gains were better maintained at follow-up in the CT condition [9].

In sum, during the last years several controversies have appeared with respect to the empirical status of ACT. These controversies have been focused on a specific type of studies, comparing the differential effect of ACT versus other. Accordingly to these studies more evidence is needed in order to determine if ACT is better than established treatments [10]. The present study is the first to our knowledge to directly compare the efficacy of ACT

to gold standard CT in Iran. Strengths of the study include true random assignment and use of group therapy which is advantageous over individual therapy for having a stronger form of observational learning, meeting people with identical problems.

Materials and Methods

Participants and procedure: In this randomized clinical trial Statistical population included female patients with MDD referred to consulting center of Tehran University. Inclusion and exclusion criteria were [1]; primary diagnosis of MDD [2] 18-35 years old [4] no cognitive therapy received from 6 months ago [5] no evidence of personality disorder, psychotic disorders, substance or drug dependence. All patients signed informed consent and were screened with a version of Persian Structured Clinical Interview for DSMIV Axis I and II disorders by psychiatric or clinical psychologist. All patients interviewed with SCID-I & II by researcher again. After screening and investigating of their situation for participating in study, patients were assigned in 2 groups randomly. In order to collect data about the demographic characteristics of the population of the study, the researcher devised a questionnaire to find out about their age, marital status and education.

The intervention in ACT group conducted based on Seattle manual for Major Depressive Disorder. Twelve treatment sessions administered in consulting center of Tehran University twice a week. First 10 students assigned to experimental group and next 10 students assigned in control group by random sampling. The control group received twelve sessions of cognitive therapy based on Ferry manual twice a week.

Structured Clinical Interview for DSM IV: Structural Clinical Interview is a diagnostic instrument devised based on Diagnostic statistical Manual of mental disorders, 4th edition (DSM IV). Therefore, the interviewer must have the knowledge and experience of psychopathology. This instrument is available in two versions. The 1st version is SCID-I which deals with major mental disorders (axis I in DSM IV). This study used the translated and adapted form of this instrument by Sharif et al. [11]. The other version used by this study is SCID-II which was translated and adapted by Bakhtaran [12]. The second version deals with the evaluation of personality disorders.

Beck Depression Inventory-second edition (BDI-II): As a self-reporting instrument, BDI-II is used for assessing the factors involved in depressive disorders. This inventory includes 21 statements regarding various symptoms of depression. The items are scaled from zero to 3 which make an overall range of 0-63 [13]. Having been translated and conducted on 125 Iranian university students, BDI-II has been reported to have alpha coefficient of 0.78 and retest coefficient of 0.73, with a two-week interval [14].

Ruminative Response Test (RRS): The RRS consists of 22 items measuring ruminative responses to depressed mood. In previous studies, total RRS has achieved a test-retest correlation of 67 over a 2-year period and satisfactory convergent and predictive validity [3]. Questions of this scale are based on the concept of rumination and thoughts related to the depressed mood. The responses are scored based on a Likert scale ranging from 1 to 4. The Cronbach's alpha was reported to be 0.90 among Iranian subjects [15].

Data analysis: As for data analysis, Multivariate Analysis of Covariance (MANCOVA) by SPSS-19 was used to have a control over the possible effects of the scores of the variable obtained before the treatments on those obtained after the treatment.

Results

All of the subjects (Table 1) were female. Nine of the subjects were assigned to the group cognitive therapy and the ten subjects comprised acceptance and commitment therapy group. Table 1 showed demographic characteristics of the subjects. The mean±standard deviation (SD) of the participants' age was calculated as 25.2 and 4.2, respectively.

MANCOVA is used for comparing groups on a range of different characteristics, especially when we have more than one dependent variable.

Table 2 illustrates the mean±SD and between-subjects variance of the control and experimental groups on the depression and ruminative response in pre-test and post-test.

Table 1. Demographic variables of two groups

	Acceptance and commitment therapy (ACT)	Cognitive therapy (CT)
Age (yr)	24.7±4.2	25.7±4.4
Education		
Diploma [N (%)]	6 (60)	5 (55)
Master [N (%)]	4 (40)	4 (45)
Marital status		
Single [N (%)]	7 (70)	8 (88.9)
Married [N (%)]	3 (30)	1 (12)

Table 2. Means, standard deviations, between-subjects variance analysis regarding dependent variables on outcome measures in ACT and CT groups

	Group	Pre test Mean±SD	Post test Mean±SD	F	df	*p*-Value	Effect size
Severity of depression	ACT	33.3±11.25	28.2±16.28	0.20	1-16	0.66	0.01
	CT	28.4±7.74	18.5±7.65				
Ruminative response scale	ACT	60.40±10.84	55.40±15.42	0.42	1-16	0.52	0.03
	CT	55.11±16.68	50.44±10.34				

Discussion

Results showed that depression decreased significantly in two groups, but efficacy of ACT was equal of CT. Also, patients while there was a mean decrease in rumination in pre- to post-intervention states, this difference did not reach statistical significance and efficacy of inversions on rumination was equal. The findings of this study do not show any significant difference between effectiveness of acceptance and commitment therapy and cognitive therapy in decreasing the level of depression and rumination. The findings of the present study are congruent with those obtained from previous studies [7, 9] suggesting no difference between cognitive therapy and acceptance and commitment therapy on the improvement of depression. Although improvements were equivalent across the 2 groups, the mechanisms of action appeared to differ. Changes in “observing” and “describing” one's experiences appeared to mediate outcomes for the CT group relative to the ACT group, whereas “experiential avoidance,” “acting with awareness,” and “acceptance” mediated outcomes for the ACT group [8].

In Zettle and Rains [7, 8] studies revealed that, at follow-up, one-third more CT patients were in the clinically normative range in terms of depressive symptoms. As we have no follow up, this matter can be considered as a limitation for this study. No significant difference was observed in terms of variables of the study, such as reducing the acuteness of rumination. Rumination decreased in two groups, but this reduction was not significant. It seems that ACT via mindfulness and acceptance skills and CT via reappraisal coping strategies both can help clients to reduce rumination. Collectively, the extant literature suggests that both the content and form of cognitive change may be important for the successful treatment of depression.

And last, the researcher admits that the small size of sample and lack of follow-ups are among the limitations of this study.

Thus, it is recommended that the further studies investigate the matter with larger sample size and follow up the results more carefully.

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Authors’ Contributions

All authors had equal role in design, work, statistical analysis and manuscript writing.

Conflict of Interest

The authors declare no conflict of interest.

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