

## Comparison and the Effectiveness of Dialectical Behavior Therapy on Obsessive-Compulsive Disorder

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### ABSTRACT

Considering the size of the test, we used a pretest-posttest quasi-experimental design with the control group. The statistical sample includes all the individuals referred to the Social Emergency Zone 1 and Zone 2 in Tehran. Among which 30 were selected by convenience sampling method. The samples were chosen randomly and were placed in two groups of 15 (an experimental group and a control group). Samuel behavior patterns questionnaire and Maudsley Obsessive Compulsive Inventory (MOCI) (2004) were used for information related to each research groups. The results of the tests, i.e. Pre-test and post-test, conducted in both groups, i.e. A behavioral therapy group and a cognitive group has shown that a significant difference is observed between test group and control group both in dialectical behavior therapy and behavioral dialectical behavior therapy, however, increased significance between control group and test group resulted by behavior therapy shows that dialectical behavior therapy had been more successful compared to other therapy methods. In the present study, we developed hypotheses for experimental work. The results show a significant difference between the test group and the control group in behavior therapy elements practices and obsessive ( $p < 0.001$ ). Therefore, we can say that at least one variable is different between test group and control group. To realize the difference between these two groups, analysis of covariance was used. Results of one way analysis covariance showed that cognitive behavioral training has significant effects on obsessive-compulsive and behavior therapy treatment methods, in other word, behavior therapy models and dialectical group therapy and obsession reduction have been effective.

**KEYWORDS:** other therapy methods, group therapy, behavioral therapy, cognitive group therapy

### INTRODUCTION

One of the major problems that was intensified in recent years and had detrimental effects on mental health has been the development and exacerbation of obsessive compulsive disorder. Most of the patients with obsessive compulsive disorder experience mild symptoms in the early stages of the disorder, however, at the initial stages, the exacerbation of symptoms can be avoided in some of the patients before they fully become affected.

Obsessive-compulsive disorder treatments, including obsessions, has three treatment stages, first cognitive behavioral therapy, then behavioral therapy and finally pharmacotherapy<sup>1</sup> and dialectical behavior therapy is a cognitive-behavioral approach that emphasizes on psychological-social aspects of treatment. The theoretical basis of this approach is that some people are susceptible to response to emotional situations in an unusual and severe ways. Situations mostly found in emotional, family, or friendly relationships. According to DBT theory, the level of excitement for some people in such situations raises quickly, so they reach a higher level of excitement, and it takes a longer time to reach the base level of excitement.

According to Briscoe et al. (2012), application of other therapies and speech therapy or using behavior therapy models have been of the most influential factors in reducing obsessive compulsive disorders among individuals.

Coffman et al. (2007) argue that positive communication skills such as (empathy, listening carefully and supportive comments) have been able to create concrete feedback of individuals, particularly in the area of obsessive-compulsive behavior influence. The goal of behavior therapy is quality of life improvement and consistency through behavioral reconstruction. However, the basis of behavioral therapy is making change in current behaviors – unfavorable behaviors – as well as inefficient thoughts.

People who are diagnosed with borderline personality disorder experience severe instability in their emotions, view the world in black or white, and seem to move from one crisis to another. Few people around the person with such specific emotional situation realize these reactions. In fact, most of people who are unaware are very family and his or her childhood companions, making his or her emotions invalid. These conditions cause the

<sup>1</sup>Fitt&Rees,2012

person to have no way to cope with these severe mood swings and sudden excitation. Dialectic behavior therapy is a method in which necessary skills for solving the problem is taught to individuals<sup>2</sup>.

Be one of the electronic arrangement in which to be a solution to this is given to the training.<sup>4</sup>

Linehan(1993) argues that basic understanding of dialectic behavior therapy is crucial, because it determines the attitude of the therapist to the patient's sufferings from borderline personality disorder. Linehan believes that the term dialectic refers to the fact that reality is the result of permanent tension between different objects or subjects. Any effect, which is called thesis, tends to create an adverse effect, which is called anti thesis, and the contradiction between objectives and thoughts will be solved by creating a new effect (which is called synthesis). Important point in behavior therapy is the change in behavior through learning new behaviors and elimination of undesirable behaviors. Any mental disorders sign requires different treatment. For example, for the treatment of phobia (fear of a position or an object), Systematic desensitization is used. The therapist shall not suffice to one treatment method. Psychotherapy is a very complex process and requires different treatment methods.

### **Obsessive -compulsive Disorder**

Obsessive-compulsive disorder perhaps is one of the most important behavioral disorders that caused some problems for the patients by affecting their thoughts and behaviors. One of the areas that has been able to be affected by the onset of obsessive-compulsive, is dialectical behavior therapy beliefs as well as perfectionism thinking<sup>3</sup>. Obsessive compulsive disorder is one of the prevailing psychiatric disorders that has two characteristics: first, intrusive, non-controllable and recursive thoughts that cause anxiety in person (obsessive thoughts), and second, repetitive behaviors aimed at reducing this anxiety (compulsive behavior). These disorders severely interfere with the life of people, therefore health professionals have performed many researches on this issue and are trying to evaluate it in a better way. In practical obsessive compulsive disorder, obsessive and anxiety thoughts accompany practical compulsions. These practical compulsions are compulsive activities that an individual does in order to mitigate his or her thought obsessions. These actions are involuntary, repetitive, and somewhat stereotypical<sup>4</sup>. The term "dialectical behavior therapy", refers to the beliefs that a person has about his or her own beliefs. For example, the belief that one should prevent disturbing thoughts or control them, or the belief that one's thoughts are very important or dangerous, is a dialectical behavior therapy belief. OCD dialectical behavior therapy models emphasize on the role of the dialectical behavior therapy and believe that obsessive thoughts about his own individual thoughts lead to the persistence of the disorder. Recently, researchers have begun to collect data that confirm the importance of dialectical behavioral therapy in understanding obsessive compulsive disorder (G William, et al., 2004).

On the influence of dialectical behavior therapy beliefs of obsessive compulsive disorder, six areas of thoughts associated with OCD have been identified: 1) Severe and extreme responsibility, 2) Extreme emphasize on thinking, 3) Strong concerns about the level of controlling thoughts, 4) Extreme estimation of being under threat, 5) inability to tolerate uncertainty, and 6) perfectionism. In this section, we examine some of these areas and related cognitive features (such as attention and memory biases, magical thinking, Thought-Action Fusion). These areas have an important role in the understanding and treatment of OCD<sup>5</sup>.

### **Review of relevant literature and history**

#### **1. Researches of Gholizadeh, H., 2013, A comparison of dialectical behavior therapy for patients with depression, obsessive-compulsive and healthy group**

The purpose of this study was to compare the training of dialectical behavior therapy between patients with depression, obsessive-compulsive disorder, and healthy group. 50 depressed patients and 49 patients with obsessive disorder referred to Bozorgmehr clinic and Tabriz city counseling psychiatric centers were selected by convenience sampling method. The findings of the research demonstrated that there is a significant difference in the total score of dialectical behavior therapy and all subscales ( $0.001 > P$ ) between healthy group and depressed and obsessive patients. Because of dialectical behavior therapy trainings, the severity of their obsessive disorder score is reduced.

Conclusions: In general, the results of this study have shown that patients with depression and obsessive behavior have been able to decrease their obsessive scores by means of dialectical behavior therapy trainings.

#### **2. Researches of Mohammad Khani, S., 2012, the relationship between dialectical behavior therapy and control strategies of thoughts with obsessive-compulsive symptoms in non-clinical population**

The study aimed to investigate the relationship between education of dialectical behavior therapy and control strategies of **thoughts with obsessive-compulsive symptoms** in non-clinical populations. Results showed that there is a significant positive relationship between dialectical behavior therapy training and

<sup>2</sup>Hodgson, 2007

<sup>3</sup>Larson, 2008

<sup>4</sup>Solemn, 2010

<sup>5</sup>Frost & Steklee, 2002

obsessive thoughts. Positive training subscales concerning anxiety, uncontrollability, danger, and cognitive self-consciousness are the strongest predictors of obsessive-compulsive symptoms in non-clinical populations. In addition, significant positive relationship was obtained between the overall score of thought control strategies and obsessive symptom. Among subscales of thought control, punishment and anxiety strategies showed the highest positive relationship with obsessive-compulsive symptoms.

### **3. Researches of Wales, 2013: Studying the prevalence of obsessive-compulsive disorder and determining the effectiveness of the dialectic behavior therapy and cognitive behavior therapy on decreasing obsessive-compulsive symptoms in women**

Obsessive-compulsive disorder is an anxiety disorder that interferes with the performance of the individual, distinguished by obsessive thoughts or actions or both. The present study was conducted. Therefore, the research method consists background study and is also. The results of the study showed that the prevalence of obsessive compulsive disorder among women is equal to 9.37 percent. These results have also shown that in test group obsessive compulsive thoughts and depression were significantly reduced compared to the control group, while the amount of anxiety was decreased significantly only in the cognitive behavior therapy group. In addition, emotional regulation plans in dialectic behavior therapy groups was improved, and the amount of inferential cognition was decreased in the cognitive behavior therapy. Cognitive behavior therapy has been more effective in reducing obsessive compulsive disorder than dialectic behavior therapy. Reduction in the obsessive compulsive symptoms in cognitive behavior therapy was accompanied with reduction in inferential cognition, and in dialectic behavior therapy was accompanied with increase in emotional regulation. Cognitive behavior therapy had led to a reduction in obsessive compulsive disorder by persuading the patient to invalidate initial doubts and to trust in his or her own perceptions, while dialectic behavior therapy had led to a reduction in obsessive compulsive disorder by increasing stress toleration, flexibility and emotional regulation skills.

### **4. Researches of Reber, 2013: Effects of cognitive – behavior training of maternal and child relationship on reducing obsessive-compulsive symptoms in children**

In order to consider the ethics of the study, both groups used psychiatric medication too, and they were studied in four stages of before treatment, after individual treatment, group training and follow-up. Measuring instrument consists of structured clinical interview for axis I and II disorders and obsessive compulsive disorder severity index. Data were examined using diagram, one-way ANOVA with repeated measures. Results show dialectical behavior therapy decreases symptoms of obsessive compulsive disorder except in impulsivity, anger and paranoid ideation. In the present study, the most severe sign was emotional instability and the most changes were feeling of abandoned, suicidal behavior and identity problems.

#### **And - Innovation and being up to date in research:**

According to the studies, it is clear that no integrated research has professionally done inside the country so far on the relationship between the obsessive compulsive disorder and thought and dialectical behavior therapy beliefs among students of Boroojerd city, and it has been only some sporadic references here and there and merely relying on references to the topic of the research. Due to the nature of the research topic, this study aims to perform a comprehensive review of the topic and its applications.

#### **Methods**

Research method in this study is quasi-experimental with pretest-posttest and control group. The statistical sample includes all the individuals referred to the Social Emergency Zone 1 and Zone 2 in Tehran. Among which 30 were selected by convenience sampling method. The samples were chosen randomly and were placed in two groups of 15 (an experimental group and a control group). Twelve sessions of dialectical behavior therapy in group therapy form was presented according to guidelines Munoz (2001). Before starting group therapy sessions, a pre-test was performed from both groups. The experimental group then received behavioral therapy model. At the end, each post-test was performed for each group. For data analysis, descriptive statistics and inferential statistics (ANCOVA) was used.

#### **Data collection**

In this research, Samuel's Behavior Therapy Models Inventory which is a 21 scale Inventory is used which aims to assess the behavioral therapy practices. Each question has 4 choices and the scores range between zero three. Participants have to check the option that is more consistent to his or her current mood. The internal consistency of this tool is 0.73 to 0.92, with a mean of 0.86 and Cronbach's alpha for patients is 0.86 and for non-patients has been reported 0.8 (Hasani, 2008).

**Maudsley Obsessive Compulsive Inventory (MOCI) (2004):** Maudsley Obsessive Compulsive Inventory was produced in 1977 by Hudson and Rachman. This inventory has 30 true-false questions and contains four sub-scales. To score Maudsley Obsessive Compulsive Inventory, each choice should be given a score 0 or 1. The full scoring is as follows: Checking compulsions: In questions 2- 6- 8- 14- 20- 26 and 28, if the correct choice is checked give it one score. In questions 15 and 22, if the answer is "wrong" give it one score. Washing/cleaning compulsions: in questions 1 to 4 and 26, if the correct choice is checked, give it one score. In questions 5- 9- 13- 17- 19- 21- 24 and 27 if the answer is "wrong" give it one score. Slowness, repetition: in question 4, if the 'correct' option is checked, give it 1 one score.

In questions 2, 8, 16, 23, 25, and 29, if the answer is "wrong", give it one score. Doubting and duty: in question 3, 7, 10, 12, 18, and 30, if 'correct' option is checked, give it one score. In other questions, if "wrong" option is checked, give it one score. In other questions, if "wrong" option is checked, give it one score.

Total scores: In questions 1- 2- 3- 4- 6- 7- 8- 10- 12- 14- 18- 20- 26- 28- 30 if the "correct" answer was checked, give it one score. In other questions if the "wrong" option is checked, give it one score.

### Findings

As mentioned in the methodology section of this paper, we divided the sample into control and test groups in order to investigate the dialectical behavior therapy and cognitive behavior therapy on the statistical population.

### Data statistical analysis methods

To analyze the collected data, descriptive and inferential statistics methods such as mean, standard deviation, Pearson correlation coefficient were used. SPSS software was used.

Demographic data				
Test group Age	Less than 30 years	30 to 35	35 to 45	Over 45 years
	7	3	4	1
Control group Age	6	5	3	1
Test group gender	women			men
	10			5
Control group gender	8			7
Test group Education	Associate and less	Bachelor		Graduate and higher
	4	7		4
Control group Education	3	10		2
Duration of obsessive-compulsive disorder in test group	Less than 5 years	5 to 7	7 to 10	10 to 15 years
	6	3	4	2
Duration of obsessive-compulsive disorder in control group	7	4	4	0

In the following, mean and standard deviation scores of dialectical behavior therapy and group cognitive behavioral therapy in the pre-test and post-test is studied.

As it can be seen in Table 1, the mean and standard deviation of dialectical behavior therapy method scores in pre-test phase for the test group is 40.5 and 6.01, and for control group is 39.5 and 5.47, respectively, and in post-test phase, for the test group is 52.13 and 7.78, and for control group is 38.13 and 5.15, respectively, in other words, the average scores of dialectical behavior therapy in test group at post-test phase has increased compared to pretest and the control group.

On the other hand, the mean and standard deviation of the dialectical behavior therapy score in the pre-test is 41.0 and 6.22 for the test group and 41.15 and 6.33 for the control group, respectively, and at post-test is 48.13 and 7.2 for the test group and 41.15 and 6.33 for the control group, respectively, i.e. the average score of the dialectical behavior therapy in test group has increased in post test phase compared to pre-test phase and control group.

**Table 1: Mean and standard deviation of the test and control groups in pretest and posttest**

Variable		Groups	Pretest		Posttest	
			Mean value	Standard deviation	Mean value	Standard deviation
Methods of treatment	Dialectical behavior therapy	Test	40/5	6/01	52/13	7/87
		Control	39/5	5/47	38/13	5/15
	The dialectical behavior therapy	Test	41/0	6/22	48/13	7/2
		Control	41/5	6/33	41/5	6/33

The data in this table shows that significant differences is observed between the control and test groups both in the dialectical behavior therapy and dialectical behavioral therapy, however, increase in the difference between the test group and the control group in dialectical behavior therapy suggests that dialectical behavior therapy have been more successful compared to other therapies.

Variable		Groups	Mean value	Standard deviation
Dialectical behavior therapy	Communication skills	Group therapy	52/25	7/7
	Emotional regulation skills	Group therapy	51/1	7/38
	Distress tolerance	Group therapy	53/45	5/80
	Mindfulness skills	Group therapy	50/37	7/21
	Communication skills	Controls	51/26	7/49
	Emotional regulation skills	Controls	49/72	6/89
	Distress tolerance	Controls	50/18	7/11
	Mindfulness skills	Controls	46/12	6/29

In present study, Multivariate analysis of covariance (MANCOVA) was used to test hypotheses 1 and 2, and determining significance of the effect of group therapy in reducing obsessive compulsive disorder in both test group and control group in the pre-test and post-test phases.

The results in Table 2 shows that there is a significant difference ( $p < 0.001$ ) between the test group and the control group in components of behavior therapy and obsessive compulsive disorder. Therefore, we can say that there are differences in at least one of the variables between test and control groups. To realize the difference between them, analysis of covariance was used.

**Table 2: Results of the analysis Mankva on the posttest mean score components and modes of behavior therapy in the treatment group and control obsession with control pre-test**

Exam Name	Value	F	Df hypothesis	Df error	Significance level
Pillai trace	0.57	18.03	2	27	0.001
Wilks' lambda	0.43	18.03	2	27	0.001
Hotelling trace	1.34	18.03	2	27	0.001
Roy's greatest root	1.34	18.03	2	27	0.001

As it can be seen in Table 3, the result of one way covariance analysis showed that cognitive behavioral training has significant effect on the variables of obsessive compulsive disorder behavioral therapy methods; in other words, dialectic behavior therapy model has been effective on decreasing obsessive compulsive disorder.

**Table 3: Results of a multivariate analysis of covariance on post-test mean scores of test and control groups, with pretest control**

	The source of variance	Sum of squares	Df	Mean square	F	Significance level
<b>Methods of behavior therapy</b>	Pre- test	835/27	1	835/27	126/65	0/001
	Group	445/05	1	445/05	67/48	0/001
	Error	178/07	27	6/59		

With regards to Table 4 it can be seen that there is significant difference between test group and control group in terms of behavior therapy methods ( $p < 0.001$  and  $F = 14.86$ ) and obsessive compulsive disorder ( $p < 0.001$  and  $F = 21.47$ ). Based on these findings, it can be stated that the dialectical behavior therapy group and obsessive compulsive decrease in test group compared to control group in the posttest phase.

## DISCUSSION

As it has been indicated in the study of the effect of research independent variables on dependent variable, it can be stated that in both dialectic behavior therapy and cognitive behavior therapy, we can observe an increase in the level of knowledge and information of individuals in terms of communication models, and this important factor indicates an increase in efficiency in those couples who previously had inefficiency feelings in communication or correct understanding of communication models.

In this study, we examine the effectiveness and comparison of dialectical behavior therapy on obsessive compulsive disorder. Therefore, according to the experimental aspects of work, we used quasi-experimental method with pretest-posttest and control group.

The statistical sample includes all the individuals referred to the Social Emergency Zone 1 and Zone 2 in Tehran. Among which 30 were selected by convenience sampling method. The samples were chosen randomly and were placed in two groups of 15 (an experimental group and a control group). Samuel behavior patterns questionnaire and Maudsley Obsessive Compulsive Inventory (MOCI) (2004) were used for information related to each research groups. Study of the obtained resulted from the tests, i.e. pre-test and post-test in both test groups, in other words behavior therapy group and cognitive therapy method showed that the average scores in dialectic behavior therapy methods test group in posttest stage has increased compared to pre-test and control group. On the other hand, the average scores of dialectic behavior therapy in test group in post-test stage has increased compared to pre-test and control group.

These results shows that significant differences is observed between the control and test groups both in the dialectical behavior therapy and dialectical behavioral therapy, however, increase in the difference between the test group and the control group in dialectical behavior therapy suggests that dialectical behavior therapy have been more successful compared to other therapies.

In the present study, we develop hypotheses for experimental work. . The results show a significant difference between the test group and the control group in behavior therapy elements practices and obsessive ( $p < 0.001$ ). Therefore, we can say that at least one variable is different between test group and control group. To realize the difference between these two groups, analysis of covariance was used .

Results of one way analysis covariance showed that cognitive behavioral training has significant effects on obsessive-compulsive and behavior therapy treatment methods, in other word, behavior therapy models and dialectical group therapy and obsession reduction have been effective.

## Conclusion

As it can be inferred from the overall results of the experiments, we could examine the effect of dialectic behavior therapy and cognitive behavior therapy on explaining and using other treatment methods on patients, and the results indicate that communication models have been usable and understandable, however, dialectical behavior therapy groups were more successful in this regard.

## REFERENCES

- Butler AC, Chapman JE, Forman EM, et al. The empirical status of cognitive-behavioral therapy: a review of meta-analyses. *ClinPsychol Rev.* 2006;26(1):17–31.
- Coffman S, Martell CR, Dimidjian S, et al. Extreme non-response in cognitive therapy: can behavioral activation succeed where cognitive therapy fails? *J Consult Clin Psychol.* 2007;75(4):531–541.
- Crawford JR, Henry JD. The depression anxiety stress scales (DASS). Normative data and latent structure in a large non clinical sample *British Journal of Cline Psychology* 2012; 4 2:111-31.
- Fitt s, Rees c. Metacognitive therapy for obsessive compulsive disorder by videoconference: preliminary study. *Behavior change* 2012; (29):213-29.
- Gahler AJ, Fava M, Wisniewski SR, et al. Sequenced treatment alternatives to relieve depression (STAR\*D): rationale and design. *Control Clin Trials.* 2011–142.
- Hodgson RJ, Rachman S. Obsessional compulsive complaints. *Journal of Behavior Research Therapy* 2007; 15:389-95.
- Hollon SD, Stewart MO, Strunk D. Enduring effects for cognitive behavior therapy in the treatment of depression and anxiety. *Ann Rev Psychol.* 2010;72:285–315.
- Larson RJ, tham SD, Amsterdam JD, et al. Cognitive therapy vs medications in the treatment of moderate to severe depression. . *Can J Psychiatry.* 2008;53(7):441–448
- Peter, P, Demler O, et al. The epidemiology of major depressive disorder: results from the National Comorbidity Survey Replication (NCS-R) *JAMA.* 2011;289(23):3095–3105.
- Solemn S, Myers SG, Fisher PL, Vogel PA, Wells A. An empirical test of the metacognitive model of obsessive-compulsive symptoms: replication and extension. *Journal of Anxiety Disorder* 2010; 24(1):79-86.
- Wells A, Cartwright-Hatton S. A short form of the Metacognitions Questionnaire: properties of the MCQ- 30. *Behaviour Research and Therapy* 2013; 42:385–96.