

## Research Paper

# Comparing the Effect of Mentalization-Based Therapy and Cognitive Analytical Therapy on Ego Strength and Defense Mechanisms of People with Borderline Personality Disorder



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**Citation** Einy S, Narimani M, Sadeghi Movahed F. [Comparing the Effect of Mentalization-Based Therapy and Cognitive Analytical Therapy on Ego Strength and Defense Mechanisms of People with Borderline Personality Disorder (Persian)]. Quarterly of "The Horizon of Medical Sciences". 2019; 25(4):324-339. <https://doi.org/10.32598/hms.25.4.324>

<https://doi.org/10.32598/hms.25.4.324>



Received: 24 Mar 2019

Accepted: 11 Aug 2019

Available Online: 01 Oct 2019

### Key words:

Borderline personality disorder, Mentalization-based therapy, Cognitive analytic therapy, Ego strength, Defense mechanisms

## ABSTRACT

**Aims** Mentalization-Based Therapy (MBT) and Cognitive Analytic Therapy (CAT) are psychotherapy approaches offering specific methods for the treatment of Borderline Personality Disorder (BPD). Therefore, this study compared the effectiveness of MBT and CAT on improving the ego strength and defense mechanisms in people with BPD.

**Methods & Materials** This was a quasi-experimental study with a pretest-posttest and a control group design and follow-up stage. In total, 40 men with BPD were selected by purposive sampling technique. The samples were selected from males admitted to Isar psychiatric Hospital and the psychiatric department of Fatemi Hospital in Ardabil City, Iran, in 2018. The samples were randomly assigned into two experimental groups and one control group. The first experimental group received 20 sessions of MBT, and the second experimental group received 16 sessions of CAT. To collect data, we used psychological inventory ego strength and defense styles questionnaire. The obtained data were analyzed using mixed model Analysis of Variance (ANOVA) and Scheffe posthoc test.

**Findings** The collected results suggested that both interventions were effective in improving the ego strength and defense mechanisms of people with BPD ( $P < 0.001$ ). However, the effect of MBT on the overall score of the ego strength and the immature defenses was higher than that of the other intervention ( $P < 0.05$ ). Moreover, there was no significant difference in neurotic defense between the two interventions ( $P > 0.05$ ).

**Conclusion** The present research results can support the use of these therapies as part of a non-pharmaceutical treatment program in different treatment centers or psychiatric hospitals.

## Extended Abstract

### 1. Introduction

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orderline Personality Disorder (BPD) is one of the most common personality disorders

in psychiatric settings characterized by emotional dysregulation, identity confusion, impulsivity, and interpersonal problems [1]. Different psychological approaches have examined the causes of BPD since birth and how parental relationships have affected this disorder, but the most found one is the psychoanalytic approach. According to this

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approach, the character consists of three bases: The Id, the ego and the superego. Since Ego is responsible for managing the mental system, all mental problems arise when Ego is unable to fulfill his responsibilities. The ego strength is the ability to maintain one's identity, regardless of psychological stress, suffering and conflict between inner needs and external demands [4]. Low ego strength makes people with BPD use a variety of defense mechanisms in their interpersonal relationships that emphasize interpersonal dependency and a tendency to direct aggression [5]. Studies also have reported that BPD is characterized by the greater use of dysfunctional and distorting defense mechanisms (e.g. splitting), and the use of less effective defenses compared to other disorders [8, 9]. Defense mechanisms are self-regulating processes that act to reduce cognitive dissonance and to minimize sudden changes in internal and external reality by affecting how threatening events are perceived [10]. This study aimed to compare the Effect of Mentalization-Based Therapy (MBT) and Cognitive Analytical Therapy (CAT) on ego strength and defense mechanisms of people with BPD.

## 2. Methods

This is a quasi-experimental study with pretest/posttest design using control group. The study population consisted of all men with BPD admitted to Isar Psychiatric Hospital and psychiatric ward of Fatemi Hospital in Ardabil, Iran in 2017 (n=80). Of these, 45 were selected based on inclusion criteria and using convenience sampling technique. They were randomly divided into three groups; two experimental (MBT and CAT) and one control. During treatment, three patients from MBT group and 1 patient from CAT group left the study. In the control group, 1 patient did not continue participation in the follow-up period. At the end, 40 patients entered into the study.

## 3. Results

The mean age in the MBT group was  $42.91 \pm 1.53$  years; in the CAT group,  $44.21 \pm 1.20$  years and in the control group,  $45.14 \pm 1.60$  years. There were 5 married, 2 single and 5 divorced in the MBT group; 7 married, 2 single and 5 divorced in the CAT group; and 6 married, one single and 7 divorced in the control group. In the MBT group, 7 had high school diploma, 3 with bachelor's degrees and 2 with a degree higher than bachelor's; in the CAT group, 8 had high school diploma and 6 with bachelor's degrees; and in the control group, 6 had high school diploma, 7 with bachelor's degrees, and one with a degree higher than bachelor's. In the MBT group, 5 were unemployed, 5 were self-employed, one was employed and one disabled; in the CAT group, 3 were unemployed, 5 self-employed, 2 employees, one retired, and 3 disabled;

and in the control group, 4 unemployed, 3 self-employed, 3 employees, 2 retired and 2 disabled.

Before using mixed ANOVA, its assumptions were examined. The mean and standard deviation of ego strength and defense mechanisms are presented in Table 3. Kolmogorov-Smirnov test was used to evaluate the normality of the data distribution. Its results showed that the distribution of dependent variables in pretest, posttest and follow-up phases was normal ( $p > 0.05$ ). According to non-significance of Levene's test results, between group variance equality was observed ( $P > 0.05$ ). To test the assumption of sphericity, the Mauchly's test was used. The results showed homogeneity of covariance variance matrix in the study variables ( $P > 0.05$ ). Therefore, the row related to the sphericity assumption was used, the results of which are presented in Table 4. As can be seen, the effect of group on ego strength, neurotic defense mechanism, and underdeveloped defense mechanism was significant ( $P < 0.05$ ).

## 4. Discussion

The purpose of this study was to compare the effectiveness of MBT and CAT on improving ego strength and defense mechanisms in people with BPD. The results showed that both treatment methods had significant effect on improvement of ego strength and defense mechanisms disorder at posttest and follow up phases. Scheffe test results also showed a significant difference between the two treatments in terms of ego strength and underdeveloped defense mechanism in patients, where the effectiveness of MBT was higher; however, there was no significant difference between the two experimental groups in terms of neurotic defense mechanism.

## 5. Conclusion

It can be concluded that MBT and CAT are appropriate methods for improving ego strength and defense mechanisms in people with BPD, and they can be used as effective interventions in psychiatric hospitals for treatment of these patients, but the MBT is more effective.

## Ethical Considerations

### Compliance with ethical guidelines

This study has obtained its ethical approval from the Research Ethics Committee of Ardabil University of Medical Sciences (Code: IR.ARUMS.REC.1396.134). Informed consent was obtained from the participants.

### Funding

This paper was extracted from a PhD. thesis approved by the Faculty of Physical Education and Sport Science, University of Mohaghegh Ardabili.

### Authors' contributions

Conceptualization, methodology, and investigation by Sanaz Einy; Writing and data analysis: Mohammad Nari-mani; Writing: Fariba Sadeghi Movahed.

### Conflicts of interest

The authors declared no conflict of interest.