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Original Article

The effectiveness of mentalization-based therapy on improving object relations of people with borderline personality disorder

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Abstract

Object relations are key concepts in the psychoanalytic approach that are important in the etiology of borderline personality disorder. Therefore, the present study was conducted with the aim of evaluating the effectiveness of mentalization based therapy (MBT) on object relations of persons with borderline personality disorder (BPD). This research was an experimental and a pretest-posttest design with the control group was used. The sample consisted of 30 men with BPD who were selected by convenience sampling from the population and were assigned using random sampling into two an experimental and a control group. The experimental group received 20 sessions of MBT, but the control group did not receive a treatment. The data collection instruments included structured clinical interviews for the diagnosis of axis II disorders, M0+illon clinical multiracial inventory and Bell Object Relations Scale. Pretest and posttest were administered to both groups. Data were analyzed by univariate covariance analysis by SPSS software, Ver. 23. The results showed that after controlling for the pretest effects, there was a significant difference between the mean of posttest scores of both groups in both object relations variables ($p<0.05$). In other words, MBT sessions improved object relationships ($F = 4.838$) in persons with BPD in the treatment group. Therefore, MBT is a suitable strategy for improving the object relationships of persons with BPD and can be used as an effective intervention method.

Keywords

Borderline personality
Mentalization based therapy
Object relations

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Introduction

Borderline personality disorder (BPD) is pervasive pattern of instability in interpersonal relationships, self-image and emotions with obvious impulsivity that begins from early adulthood. This disorder has been called the boundary between the psychosis and neurosis. Distinctive attributes of this disorder include self-concept confusion, chronic feelings of emptiness and futility (D SM-5, Rezaei, Fakhraee, Charismatic, Lotus, Hashemi Azar, Shamloo, 2013). Suicide and attempting for self-harm are the main indicators of this disorder (Rahmani, Kiani, Rezaie, Nasuri, Arasteh, 2013). BPD symptoms have been clustered into five main cores of disorder including emotions, interpersonal relationships, behavioral aspects, feeling of self and cognition (Crowell, Beauchaine, Linehan, 2009). The prevalence of BPD is approximately 1.6% in the overall population, 6% in primary care centers and 20% in hospitalized αPsychiatric patients (DSM-5, Rezaei et al.).

Different psychological approaches have addressed studying the causes of BPD since the birth and how parental relationships influence on BPD but psychoanalytic approach has been the deepest of them. The view taken from psychoanalytic and considered in the etiology of BPD is object relations theory. The term object refers to anything that meets the need. Freud used the term object for the first time in the field of mother-infant

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relationships. This term, in combination with relationships, refers to interpersonal relationships, indicating the remains of past relationships that shape the current interactions of individuals with others (Huprich & Greenberg, 2003). The undesired childhood experiences make it possible for children to internalize disturbed object representations that do not integrate into the affectionate and no affectionate aspects of those who are close to them. As a result of these disturbed object relations, an insecure ego is made that is a major feature of BPD (Kerenberg, 2006). People with BPD have a high score in insecure and ambivalent attachment, and the combination of these two attachment styles is specific to BPD (Choi-Kain, Fitzmaurice, Zanarini, Laverdiere, & Gunderson, 2009). In a study based on the description of BPD based on DSM-5, it became clear that BPD is an organization of internal experiences that is characterized by pathology severity of ego and object relations (Kerenberg, 2015). The cognitive aspect of object relations predicts the suicidal behaviors in people with BPD, and no significant relationship exists between the quality of object representations and suicide in people with other personality disorders (Lewis, Meehan, Cain, Wong, & Clemence, 2016). In another study, it was found that object relations predict BPD symptoms better than emotional deregulation, negative emotion and impulsivity (Huprich, Nelson, Lenqu, & Albright, 2017).

According to the theoretical evidence of BPD and high prevalence of this disorder, several therapeutic measures have been used with regard to the etiology of this disorder. Among them, we can refer to schema therapy, dialectical behavior therapy, and transference focused psychotherapy (Cristea, Gentili, Cotet, Palomba, Barbui, & Cuijpers, 2017). Mentalization-based therapy (MBT) is a special type of psychodynamic psychotherapy that has been developed by Bateman and Fonagy for the treatment of patients with BPD, which determines BPD with all its complexities and is based on two main concepts: Bowlby theory of attachment and mentalization (Bateman & Fonagy, 2013). MBT is based on the hypothesis that lack of mentalization capacity leads to the growth of BPD. Mentalization capacity, which is considered as a reflective function, is the ability to understand the mental state of oneself and others obtained through interpersonal relationships in childhood especially attachment relationships and the basis of obvious behaviors. The patients with BPD have deficiencies in mentalization capacity that are related to insecure attachment style (Bateman & Fonagy, 2013). MBT is a structured therapeutic approach divided into three distinct stages; assessing the patient's mentalization capacity, personality function, contracting, engaging the patient in the treatment and the identification of the problems that may interfere with the treatment are the general goals of the first stage. The special processes of the first stage are to diagnose, provide psychological training about BPD, establish a hierarchy of therapeutic goals, stabilize behavioral and social problems, review medication, define a crisis path and agree with monitoring results. During the middle stage, the goal is to stimulate a stronger mentalization capacity within the framework of emotional arousal and attachment relationships. The special processes of this stage include support, empathy, verification, clarification, affect elaboration, and affect focus and challenge. At the final stage, also the patient becomes prepared to finish the treatment and requires a therapist who can focus on the emotions of the treatment termination, how to maintain achievements during the treatment, and to develop a follow-up program tailored to the patient's specific needs (Bateman et al., 2016). The main focus of MBT is to help the therapist bring his mental experiences to a conscientious level and facilitate a coherent and complete sense of a mental agency. The goal of the treatment is also to grow and strengthen the mentalization capacity through therapeutic relationships and increase the capacity of the patient to identify the thoughts and feelings that he experiences (Oliveira, Rahioui, Smadja, Gorsane, & Louppe, 2017). Neuroscientists have identified four different components to mentalizing: automatic versus controlled mentalizing, mentalizing the self-versus others, mentalizing with regard to internal versus external features and cognitive versus affective mentalizing. The mentalization ability requires individuals to be able not only to maintain a balance in the aspects, but also to apply these aspects appropriately to the environmental conditions. The mentalization profile of people with BPD is determined with emphasis on the aspect of automatic mentalization and other external and affective characteristics (Bateman, Sharp, & Fonagy, 2011). MBT is effective in treating adolescents with BPD (Oliveira & Rahioui, 2017). Many experiences of childhood punishments have been linked with reduced mentalization capacity in adulthood and reduced mentalization ability is BPD basis, as well as the results support the effect of MBT on the improvement of patients with borderline personality disorder (Petersen, Brakoulias, & Langdon, 2016). MBT compared to dialectical behavioral therapy improves certain aspects of social cognitive skills and attachment security (Edel, Raaff, Dimaggio, Buchheim, & Brune, 2017). The improvement in distress symptoms, job performance, and interpersonal skills in patients who received MBT was significantly higher than those who received traditional psychodynamic treatment programs (Kalleklev & Karterud, 2018). Also, the effectiveness of MBT in a group of patients with severe and pervasive BPD is greater than that of specialized psychotherapy programs (Byrne & Egan, 2018).

In general, the psychological characteristics of patients

with BPD, high prevalence and increased suicide rate in these patients are important causes so that effective treatments for this disorder should be developed and widely available. On the other hand, the results of research have shown the disturbance of object relations in people with BPD, as well as the effectiveness of MBT on BPD. Also, the lack of study of MBT in patients with BPD in Iran is another gap that will be filled by this study, and the result of such a study will be the basis for further studies as well as the design of appropriate interventions to improve the object relationship among these patients. Therefore, this study was done with the aim of evaluating the effectiveness of mentalization-based therapy on object relations of persons with borderline personality disorder.

Method

Participants

The present study was an experimental one in which pretest-posttest design was used with a control group. The population of this study consisted of all men with borderline personality disorder referring to Isar Psychiatry Hospital and Fatemi Ardabil Hospital's Psychiatry department in 2017 (n = 70). The sample included 30 men with BPD who were selected by availability sampling first according to admission of people to participate in the research and having inclusion and exclusion criteria from the population and randomly assigned into two experimental and control groups (15 persons in the experimental group and 15 persons in the control group). Given that in a pilot study, the minimum sample size in each sub-group should be 15 persons (Delavar, 2011), in order to increase the external validity, 18 participants were in the experimental group and 18 were in the control group. However, due to the fact that the participation in the study was voluntary and the drop in the subjects, finally 30 subjects (15 persons per group) were examined as the sample of the present study. The inclusion criteria included: 1) having BPD diagnostic criteria based on DSM-5 in a psychiatrist's assessment and structured clinical interviews based on Form 5 Diagnostic and Statistical Manual of Psychiatric Disorders for the Axis II and Psychiatric Diagnosis, 2) achieving a higher score than BR>84 in questions about the borderline personality disorder of Millon test, 3) minimum degree of education (Diploma), 4) age range between 18 and 50, and 5) lack of drug poisoning and preventive medical problems. The exclusion criteria included: 1) Reluctance to continue treatment, 2) mood disorders, and 3) drug abuse during the treatment period.

Instrument

Structured Clinical Interview for Diagnosis of Axis II Disorders (SCID-II)

This instrument is a semi-structured diagnostic interview that First et al. (1997) have developed for the diagnosis of 10 DSM-5-based personality disorders axis II, as well as passive-aggressive personality disorder. The inventory has 119 questions and runs in less than 20 minutes; the level of education required to respond to it is at least the secondary school. The examiner conducts interviews according to the questions the patient gives them the positive response. Regarding the reliability of this test, some studies have conducted and shown a high degree of reliability in this test. Kappa coefficient for patients ranged from 0.24 for obsessive-compulsive disorder to 0.74 for histrionic personality disorder (with a total score of 0.53), and for non-psychiatric patients, the agreement between evaluators was significantly lower and the total Kappa was 0.38 (First et al., 1997). Sharifi et al. (2004) reported the acceptable reliability of diagnosis given by the Persian version of SCID and its desired application.

Millon III Multidimensional Inventory (MCMI-III)

This inventory has been prepared by Theodore Millon, Clinical and Personality Psychologist in 1981 including 175 short sentences describing itself with "yes" and "no" responses used for adults aged 18 years and older, including 14 clinical patterns of personality and 10 clinical syndromes. The validity of this test is high (Chegini, Delavar, & Garrayi, 2013). Rahmani et al. calculated the validity of the test through the internal consistency and the alpha coefficient of the scales (measures) was in the range of 0.87 (alcohol dependence) to 0.96 (post-traumatic stress disorder).

Bell Object Relations Inventory (BORI)

Bell Object Relations Inventory (Bell, Billington, & Becker, 1986) is part of 90-option Object Relationship and Reality Inventory (BORRTI). This inventory has been standardized for both the clinical and non-clinical population, and has been used in many studies in the field of interpersonal relationships, diagnosis and prediction of psychological harms. BORI has 45 items that are answered as correct and false and through four sub-scales (alienation, insecure attachment, ego-centricity, and social incompetence) an accurate and reliable evaluation of object relations is provided. The inventory is answered based on the guideline provided by the subject, he chooses the correct or false answer for each question, the correct answer is scored 1 according to the inventory key, and for some others the false choice score is 1. The sum of the scores for the questions of each sub-scale determines the rejection score for each of them and the total score of 45 questions scores specifies the score of the object relations (Hadinezhad, Tabatabaeian, Dehghani, 2014). Bell et al for the reliability and validity of the inventory reported that the tool was able to differentiate the clinical

population and had a high degree of validity as well as due to highly correlated with the other psychometric vulnerability assessment tools had an acceptable simultaneous validity (Bell et al., 1986). Hadinejad et al. (2014) reported the Cronbach's alpha coefficient for social incompetence, ego-centrism, insecure attachment and alienation, 0.68, 0.74, 0.74 and 0.85 respectively. Also, the correlation between the reviewed sign-form 90-question inventory (SCL-90-R) and sub-scales of this inventory was between 0.31 and 0.86 (Hadinezhad et al., 2014).

Procedure

The method of research implementation was in this way that after coordinating and obtaining the code of research ethics (IR.ARUMS.REC.1396.134) from the Assistance of Education and Research Affairs of Ardabil University of Medical Sciences, we coordinated with the head of Isar Psychiatry Hospital as well as the Department of Psychiatry of Fatemi Hospital. Among those who received BR score above 84 in Millon-III test and conducted a clinical interview according to DSM-5 criteria for axis II disorders (personality disorders), 30 subjects were selected who had the willingness to participate in the study by the availability sampling and randomly assigned into the experimental and control groups. Before submitting inventories and collecting data, the sample became informed with descriptive information about the goals and objectives of the study, and after obtaining the written consent of the patients for participation in the intervention, inventories were given to the subjects to complete. In the next stage, the experimental group received mentalization-based therapy-introductory (MBT-I) for 12 sessions of 75 minutes and then 8 sessions of mentalization-based therapy- group (MBT-G) for a period of 2 months in 75-minute weekly sessions. The control group had visits with the examiner, but no active and specified treatment was performed on them. Two weeks after the completion of the interventions, the post-test data were collected. While the confidentiality of information and the preparation of the research sample psychologically to participate in this study was the research terms of ethics. The data were analyzed by covariance analysis by SPSS, Ver. 23.

The content mentalization-based therapy sessions according to Bateman and Fonagy Treatment Protocol (Edel & et al., 2017) included: MBT- Introductory: **Session 1**: welcome/introducing the group leader/expressing the group session goals/expressing the first session goals (What is the program of therapy? What is mentalization?)/emphasizing the active presence of members in the group/introducing the group members and why they are referred to? /providing a worksheet/describing the group structure/presenting the group activity/explaining specific aspects, dimensions and benefits of mentalization and distinguishing it from misunderstanding by the group leader/illustrating participants' examples/studying questions provided by the members/and assignments. **Session 2**: Reviewing the previous session discussion/study assignments/expressing the goals of the session (weak and good mentalization indicators/problems of reading your mind and others' minds/problems of setting emotions and impulsivity/interpersonal sensitivity/training/clarifying the comments of the participants by the group leader and discussion about them/and assignments. **Session 3**: Reviewing the discussion of the previous session/study assignments/expressing the goals of the session (primary and social emotions/primary and secondary emotions)/presenting the group activity/describing the types of emotions and individual differences in controlling emotions and assignments. **Session 4**: Reviewing the discussion of the previous session/study the assignments/expressing the goals of the session (emotions' mentalization)/presenting the group activity on how to record emotions about yourself and others/discussing the questions posed by the participants/interpreting the inner emotional symptoms of ourselves and others' emotional states/presenting the group activity/discussion/self-regulation of emotions and how others can help regulate our emotions/presenting the group activity/discussion/non-mentalization feelings that are so annoying and how we can manage such emotional states/presenting the group activity/discussion/presenting relaxation techniques and assignments. **Session 5**: Reviewing the discussion of the previous session/studying assignments/expressing the goals of the session (importance of attachment relationships)/discussion of attachment and attachment strategies in adulthood/presenting the group activity/discussion and assignments. **Session 6**: Reviewing the discussion of the previous session/studying assignments/expressing the goals of the session (attachment and mentalization)/presenting the group activity/discussion/attachment conflicts/presenting the group activity/discussion/and assignments. **Session 7**: Reviewing of the discussion of the previous session/studying assignments/expressing the goals of the session (What is a personality disorder? What is a borderline personality disorder?)/providing an educational approach/presenting the group activity/discussion/providing a brochure on the criteria of borderline personality disorder and assignments. **Session 8**: Reviewing the discussion of the previous session/studying assignments/expressing the goals of the session (mentalization-based therapy)/expressing the profile and goals of MBT/training and practicing mentalization in the group and assignments. **Session 9**:

Reviewing the discussion of the previous session/study assignments/expressing the goals of the session (attachment aspect of the mentalization-based therapy)/presenting the group activity/discussion/the importance of communicating with others/establishing attachment relationships with the clinician and other members of the group/the group activity/discussion and assignments. **Session 10**: Reviewing the previous session/studying the assignments/expressing the goals of the session (anxiety, attachment, and mentalization)/providing training on anxiety and fear/providing the group activity/discussion/expressing types of anxiety disorders and therapeutic strategies and someone else's help is the key component of the treatment/group activity/discussion and assignments. **Session 11**: Reviewing the discussion of the previous session/studying the assignments/expressing the goals of the session (depression, attachment, and mentalization)/providing an educational approach on depression/ providing the group activity/ discussion/ training on the course and treatment of depression/discussion on depressive thinking/providing the group activity/discussion and assignments. **Session 12**: Reviewing previous session discussion/studying the assignments/summary and conclusions. **MBT group: Session 1**: Reviewing previous discussion (MBT-I)/asking the group members about the problems that they want to be addressed in the group. **Session 2**: Clarifying the problems raised by the participants by the group leader/combining problems/exploring problems. **Session 3**: Confirmation and empathy/training for mentalization to facilitate trust. **Session 4**: Clarifying the events posed by the participants. **Session 5**: Mentalization of the events and problems. **Session 6**: Detection of communication patterns/mentalization of interpersonal processes in the group. **Session 7:** Triangulation, stop and partiality. **Session 8**: End the session.

Results

The mean age in the experimental group was 40 ± 1.45 and 40.73 ± 1.63 in the control group. In the experimental group, 9 participants had Diploma degree, 6 participants had B.A. degree and higher, and in the control group, 11 participants had Diploma degree and 4 participants had B.A. degree and higher. In the experimental group, 4 participants were unemployed, 8 participants had non-governmental jobs and 3 participants were employees, and in the control group, 3 participants were unemployed, 9 had non-governmental jobs and 3 were employees. Also, in the experimental group, 3 participants were single, 7 were married and 5 participants got divorced. In the control group, 2 participants were single, 6 were married and 7 persons got divorced.

Table1. Mean and standard deviation of pre-test and post-test components of object relations in two groups of experiment and control

Variable	Group	N	Pre-test M±SD	Post-test M±SD
Ego-centricity	Experiment	15	15.60± 0.66	3.93 ± 1.48
	Control	15	14.06 ± 0.39	13.26 ± 1.79
Insecure attachment	Experiment	15	9.53 ± 0.32	2.13 ± 0.91
	Control	15	8.60 ± 0.32	8.41 ± 1.05
Social incompetence	Experiment	15	17.06 ± 0.54	6.93 ± 2.60
	Control	15	15.13 ± 0.53	14.40 ± 2.44
Alienation	Experiment	15	4.33± 0.36	1.26 ± 0.70
	Control	15	4.46± 0.29	4.06 ± 1.16
Object relations	Experiment	15	23.66 ± 3.36	9.26 ± 3.67
	Control	15	22 ± 3.35	21.26 ± 2.78

Given that the score of object relations is the result of the sum of its sub-scales in order to avoid the correlation of variables with each other, Analyze of Covariance (ANCOVA) was used to examine the effectiveness of the treatment on improving object relations among people with BPD and Multivariate Analysis of Covariance (MANCOVA) was used to improve the components. Before using the tests, the assumptions were studied. In order to study the normality of the data, Kolmogorov-Smirnov test was used. The test results indicate that the distribution of the dependent variable scores in the pretest-posttest is normal and the data have a normal distribution ($p < 0.05$). In order to study the homogeneity of variance Levine's and Box test was used and the results are presented in Table 2. Also, considering the correlation coefficients between the pre-test and post-test of variables, the assumption of linear correlations between the co-variables (covariate) (pre-test scores) was realized as well as since the co-variables had no correlation higher than 0.7 so the assumption of multi co-linearity was rejected. Finally, the homogeneity of the regression line slope was investigated regarding the relationship between the co-variables with the independent variable (group), and the insignificance indicated the regression slope homogeneity. Due to the large number of statistical Tables, Tables for the covariance analysis assumptions are presented together.

Table 2. Levine and Box test results for the assumption of homogeneity of covariates and variances

BOX	DF1	DF2	F	P
11.731	10	3784.207	0.990	0.450
Leven	**DF1**	**DF2**	**F**	**P**
Ego-centricity	1	28	0.728	0.401
Insecure attachment	1	28	0.090	0.766
Social incompetence	1	28	2.362	0.136
Alienation	1	28	0.778	0.385
Object relations	1	28	1.06	0.311

The results of Table 2 show that BOX value is not significant (p = 0.450), so the assumption of homogeneity of covariance is confirmed. According to the results of Levine's test and its insignificance for the variable of the object relations and its components, the condition for equality of inter-group variance has been observed.

Table 3. Analyze of Covariance (ANCOVA) related to the effectiveness of MBT on improving object relations

Source	Dependent variable	DF	MS	F	P	Eta
Group	Object relations	1	54.781	6.729	0.015	0.206
Group* pre-test		2	31.095	3.819	0.058	0.227

As seen in Table 3, after modifying the pre-test scores, MBT has a significant effect on object relations (p = 0.015). In other words, due to therapeutic interventions, object relations have been improved in the experimental group compared to the control group.

The significance level of Wilk's Lambda (F = 4.536, hypothesis df = 4, Error df = 17, P = 0.011, Eta = 0.516) allows the use of multivariate covariance analysis to examine the effectiveness of MBT on the components of the object relations and indicates that a significant difference is between the experimental group and the control group in terms of dependent variables ($p < 0.05$). Eta squad also shows that the difference between the two groups is significant in relation to the dependent variables.

Table 4. Multivariate Analysis of Covariance (MANCOVA) related to the mean scores of the components of the object relations in the experimental and control groups in the post-test stage

Source	Dependent variable	DF	MS	F	P	Eta
Group	Ego-centricity	1	15.195	7.678	0.012	0.277
	Insecure attachment	1	6.384	3.168	0.026	0.137
	Social incompetence	1	4.696	1.607	0.025	0.129
	Alienation	1	2.470	2.814	0.046	0/083

As seen in Table 4, after moderating the pre-test scores, the therapeutic intervention had a significant effect on ego-centricity (p=0.012), insecure attachment (p=0.026), social incompetence (p = 0.025), and alienation (p=0.046) at the post-test stage. In other words, these findings indicate improvements in the components ego-centricity, insecure attachment, social incompetence and alienation in the experimental group compared to the control group.

Discussion

The results of the present study showed that MBT has been effective in improving object relations and its components in patients with BPD in the experimental group. No study was found that directly was consistent with these results, but there are studies from which such results can be inferred (Oliveira, 2017; Petersen et al., 2016; Edel et al., 2017; Kalleklev et al., 2018). Oliveira et al. (2017) found that MBT was effective on the treatment of adolescents with BPD. Petersen et al. (2016) also in a study found that the high level of childhood punishment experience is related to the reduction in the mentalization ability in adulthood and that is the reduction in the mentalization ability on BPD basis. Also, the findings of this study have supported the effect of MBT on the improvement of patients with BPD. For explaining these findings, it can be stated that people with BPD due to disturbed attachment in childhood have a kind of mistrust that prevents constructive social interactions, in other words, causing social incompetence and alienation in social interactions. Using manifestations, trust is enhanced in these individuals. Rereading of trust through improved mentalization during treatment allows a person to better understand the problems and open his mind to understand his feelings. By overcoming the mistrust, the positive social information are confirmed that have already been rejected, one is able to change his beliefs (Bateman, 2016), on the other hand, by empathic confirmation and creating a common emotional platform between the patient and therapist the patient experience is enhanced in the case that he is not alone, and suggests that another mind can be useful in identifying mental states and increasing dynamism (Bateman, 2016), thus alienation can be reduced in a person with BPD. Also, focusing more on emotions and interpersonal interactions during a session and over time provides a proper ground in which more complex mental states are explored in the context of attachment that typically causes mentalization loss. Therefore, this treatment improves insecure attachment in people with BPD. On the other hand, in MBT the therapeutic position provides a clear social explanation of trust and the therapist is introduced as a respectable source

of knowledge that has the capacity to overturn previous beliefs about himself and others and reduce the patient's experiences of isolation. A better understanding of the social position through improved mentalization leads to a better understanding of the important individuals in the patient life, which in turn creates a potential for the individual to focus on sensitive responses and gives him a sense of being understood. Therefore, MBT is associated with education, re-emergence of mentalization and social learning, and reduces ego-centrism in people with BPD. Hence, this treatment improves object relations in people with BPD.

Conclusion

In general, we can say that MBT can be considered as an appropriate intervention for improving object relations between those with BPD, and can be used as an effective intervention in psychiatry hospitals for the treatment of people with BPD. The present study confronted with limitations, including research on people with BPD in Isar Psychiatry Hospital and Fatemi Hospital's Psychiatry department where the generalization of results to other cities becomes problematic. Therefore, it is suggested that a similar research to this study be conducted on people with BPD in other cities and their findings should be compared with the findings of this study. Also, the sample was only men with BPD who were not compared with women due to lack of access to women with this disorder. The lack of follow-up is another limitation of this study which prevents studying the long-term effectiveness of this treatment. It is recommended to conduct a study in this regard with follow-up and compare its results with the results of the present study. Also, lack of an internal record of the effectiveness of MBT on patients with BPD makes the comparison of the effectiveness of this treatment in Iran difficult. Therefore, it is helpful to study the effectiveness of MBT on the symptoms of patients with BPD in other studies and compare the results with that of the present study.

Conflict of interest

The authors this article declare that there was no conflict in interest.

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