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The Effectiveness of Metallization-Based Therapy on Splitting and Paranoid Ideation in Borderline Personality Disorder

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ABSTRACT

Objective: This study aimed to investigate the effectiveness of Mentalization Based Therapy on Splitting and Paranoid Ideation of Borderline Personality Disorder patients.

Methods and Materials: The present study was a quasi-experimental one, which included pretest-posttest design with a control group. The population of this study consisted of all people with borderline personality disorder referring to Tehran's psychotherapy clinics in 2023. The sample included 30 people with BPD who were selected through availability sampling and randomly assigned into intervention and control group. After being examined by pretests of splitting and paranoid ideation, the examinees of intervention group received 12 MBT group sessions. Then a posttest was conducted using Splitting Index and Paranoia Scale. The data were analyzed via SPSS-26 through Analysis of Covariance.

Findings: Intervention group's means were reduced and the difference between groups in splitting (F=86.33, p<0.05) and paranoid ideation (F=65.47, p<0.05) were significant.

Conclusion: The findings from this study underline the benefits of Mentalization based therapy in addressing splitting and paranoid ideation among borderline personality disorder patients and study highlights the importance of addressing splitting and paranoid ideation as a means to improve BPD patients' communicational problems.

Keywords: Metallization-based therapy, borderline personality disorder, splitting, paranoid ideation.

Introduction

Borderline personality disorder (BPD) is a mental disorder characterized by a pervasive pattern of symptoms, such as affective dysregulation, identity diffusion, interpersonal problems, self-harming behavior, and suicide-related mortality (American Psychiatrists Association, 2023). According to epidemiological studies, 1.6% of the general population suffers from BPD (Torgersen et al., 2014). In clinical populations, it is the most common personality disorder (Leichsenring et al., 2024; Torgersen et al., 2014), with a prevalence of between 9 and 22% of all psychiatric outpatients (Leichsenring et al., 2024; Merrett et al., 2022). Many of the DSM-5 symptoms of BPD, such as self-injury, suicidality, intense and inappropriate anger, impulsivity, and heightened emotional sensitivity, are mediated by the quality of interpersonal bonds between persons with BPD and their significant others (Brodsky et al., 2006). Interpersonal relationships in borderline personality disorder (BPD) are often chaotic because people with BPD frequently cycle between love and hate feelings for significant others (Leichsenring et al., 2024). BPD is characterized by 2 cardinal features: 1. A propensity to view the self and significant others as either idealized (e.g., a savior) or persecutory (e.g., a betrayer). 2. A trait-like paranoid view of interpersonal relations, where individuals with BPD believe that significant others will ultimately betray, abandon, or neglect them, despite periodic idealizations that inevitably lead to disappointment (Fertuck et al., 2018).

Based on DSM-5, one of the borderline personality disorder symptoms is transient paranoid ideation under stress. Paranoid ideation refers to an unjustified suspiciousness towards others' motives (American Psychiatrists Association, 2023). A series of studies have found reduced trust for others among individuals with BPD (Fertuck et al., 2013; Miano et al., 2013; Miano et al., 2017). And in a recent study, 80% of patients with BPD had severe paranoia/suspicious thoughts (Merrett et al., 2022). Borderline personality organization disorders and especially BPD are organized around mental representations of self and others that are split, or polarized, between idealized and persecutory (De Meulemeester et al., 2021). Under the conventional psychoanalytic account, the process driving this interpersonal splitting is an intrapsychic defense mechanism (also called splitting), in which the individual comes to see others as either all good or all bad (Kernberg, 1967; Kernberg, 2023; Klein, 1959). Splitting is the strict separation of positive emotions and negative emotions within the mind. BPD patients are unaware of their angry and aggressive feelings and mistakenly see, or project, these feelings onto others, who are then perceived as bad or threatening (Kogan-Goloborodko et al., 2016). One innovative study used ecological momentary assessment (EMA) to investigate splitting phenomena in BPD and found that during moments of heighted relational stress, splitting increased (Coifman et al., 2012), and it can predict subsequent increases in paranoid ideation.

Currently, psychological interventions are considered the primary treatment of choice for BPD (Bateman et al., 2021; Bateman et al., 2023; Bateman & Fonagy, 2020). Metallization-based therapy (MBT) is a special type of psychodynamic psychotherapy that has been developed by Bateman and Fonagy specifically for the treatment of patients with BPD and is based on two main concepts: the Bowlby theory of attachment and metallization (Bateman & Fonagy, 2020). MBT is based on the hypothesis that lack of metallization capacity leads to the growth of BPD. Metallization capacity, which is considered 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 (Bateman et al., 2023). The primary attributes of BPD from an MBT perspective are: (a) a lack of stability in metallization when in emotionally charged relationships; (b) a reversion to pre-metalizing thought patterns during periods of stress; and (c) an inclination to externalize internal states, which has been interpreted as the projection of painful and disorganized or unbearable self-states (Bateman et al., 2021). What is common to the recourse to pre-metalizing modes under heightened arousal, when the attachment system is activated, is not only a momentary and sometimes prolonged shutdown of metalizing, but with this a lowering of the individual's capacity to reappraise self-states and the internal states of significant others (Nolte et al., 2023) just like what was discussed as the sequence of splitting, projection, and paranoid ideation.

The goal of the treatment is to grow and strengthen the metallization capacity through therapeutic relationships and increase the capacity of the patient to identify the thoughts and feelings that he experiences (De Oliveira et al., 2017). Through the therapeutic process, patient and therapist jointly focus on mental states, engaging in joint attention and co-metalizing, resulting in more complex representations of what is occurring both within and outside the therapeutic relationship (Nolte et al., 2023). Results support the effectiveness of MBT on the improvement of patients with borderline personality disorder (Petersen et al., 2016). In addition, a meta-analysis showed that MBT was found to be equally as effective or superior to well-established comparison treatments of BPD (Vogt & Norman, 2019). MBT for adult borderline personality disorder has been tested in cohort studies (Bales et al., 2012; Kvarstein et al., 2015) and one randomized but uncontrolled trial (Jørgensen et al., 2013).

Considering the significance of severe interpersonal difficulties of people with borderline personality disorder that are said to be derived from splitting and paranoid ideation that can be explained by a metallization-based model and the evident effectiveness of MBT on borderline patients' symptoms, we found it crucial to assess the effectiveness of MBT on splitting and paranoid ideation of BPD patients.

Methods and Materials

Study Design and Participants

The present study was a quasi-experimental one in which pretest-posttest design was used with a control group. It was a double-blinded method. The population of this study consisted of all BPD patients referred to Tehran's psychotherapy clinics in 2023. The sample included 30 people with BPD who were selected by convenience sampling first according to consent of patients to participate and based on inclusion and exclusion criteria, then randomly assigned into intervention and control group (15 patients in intervention group and 15 patients in control group). Eligible participants were adults (≥18 years) with diagnosed BPD according to the diagnostic criteria provided in DSM-5 (APA, 2023) who had high levels of splitting (by using self-reported Splitting index (Gould et al., 1996)) and paranoid ideation (by using Paranoia

Scale (Fenigstein & Vanable, 1992)) and provided written informed consent. Exclusion criteria were a comorbid mental health disorder requiring specialist treatment and current (past 2 months) substance dependence.

In their 1971 text, Borg and Gall emphasize that the ideal sample size for an RCT depends on the expected effect size, population variability, and desired statistical power. While a small exploratory study might suffice with 15-30 participants per group. Here in this study we decided to select 15 subject for each group.

Instruments

Splitting index (SI) (Gould et al., 1996**)**: assesses defense mechanisms related to splitting according to concept proposed by Kernberg (1967). Splitting Index is 24-items self-reported questionnaire rated on 5-point Likert scale from 1 to 5 (Cronbach's alfa 0.92, test-retest reliability after one week 0.82). Using factor analysis three clusters of items have been identified that enable to describe the splitting process. These three factors represent: 1. the self-factor (splitting of the self-image), 2. the family factor (splitting of images of family members), and 3. the factor of others which describes splitting with respect to people outside the family.

Paranoia Scale (PS) (Fenigstein & Vanable, 1992**)**: The 20-item is designed to measure subclinical levels of paranoia. The scale includes items such as 'Someone has it in for me' and 'I believe that I have often been punished without cause.' Each item is rated on a five-point scale (1-not at all applicable to me, to 5-extremely applicable to me). Scores can range from 20 to 100, with higher scores indicating greater paranoid ideation. Scores ranged from 20 - 73 with a mean for the screening phase sample of 41.14 (SD = 10.96) which is a little lower than that reported by Freeman et al. (2005) but was very similar to the finding of Mills et al., (2007) who similarly recruited an undergraduate sample (Freeman et al., 2005; Mills et al., 2007) and was comparable to the mean scores previously found in subclinical groups, (Combs et al., 2002; Fenigstein & Vanable, 1992). Scale reliability (Cronbach's α) for the PS indicated excellent internal consistency, α = 0.88.

Intervention

This program consists of 12 therapy sessions focusing on mentalization, attachment, emotions, and disorders like borderline personality disorder, anxiety, and depression.

Session 1 introduces the group, its structure, and the concept of mentalization, with a group activity and worksheets.

Session 2 explores mentalization indicators, emotional regulation, and impulsivity, with participant feedback and discussion.

Session 3 covers types of emotions, individual emotional control, and primary/social emotions, followed by a group activity.

Session 4 focuses on emotional self-regulation, recording emotions, interpreting symptoms, and relaxation techniques.

Session 5 discusses attachment relationships and strategies in adulthood.

Session 6 examines attachment conflicts and their link to mentalization.

Session 7 provides an educational approach to borderline personality disorder.

Session 8 introduces mentalization-based therapy (MBT) and includes mentalization training.

Session 9 focuses on the attachment aspect of MBT and emphasizes communication and building relationships with the group.

Session 10 addresses anxiety, its types, and therapeutic strategies, including anxiety management training.

Session 11 focuses on depression, its treatment, and attachment, with group activities and education on managing depression.

Session 12 concludes the program with a review of the previous sessions, assignments, and a final summary.

Each session includes discussions, activities, and assignments designed to deepen participants' understanding and skills in mentalization and emotional health.

Data Analysis

After being examined by pretests, the examinees of intervention group received 12 MBT group sessions. Then a posttest was conducted using Splitting index (SI) and Paranoia Scale (PS). The data were analyzed via SPSS-26 through analysis of covariance (ANCOVA).

Findings and Results

The study's demographic characteristics revealed that individuals in the experimental and control groups had mean and SD ages of 32.30 ± 4.84 and 33.80 ± 5.21, respectively. Descriptive Statistics of Research Variables are presented for both pretest and posttest in Table 1.

Table 1

Descriptive Statistics of Variables

Variable	Group	Pretest		Posttest	
		Mean	SD	Mean	SD
Splitting	Intervention group	84	5.6	57	7.2
	control group	88	6.5	84	6.5
Paranoid ideation	Intervention group	69	5	32	7.7
	control group	66	5	68	5.3

The assumptions of ANCOVA were checked as follows:

1. **Normality**: The distribution of the dependent variables (splitting and paranoid ideation) was assessed and found to be approximately normal for both the intervention and control groups.
2. **Homogeneity of Variances**: Levene's test confirmed that the variances between groups were equal, meeting the assumption of homoscedasticity.
3. **Linearity**: The relationship between the covariate (pretest scores) and the dependent variables was checked and found to be linear.
4. **Homogeneity of Regression Slopes**: The interaction between the covariate and the group factor was tested and found to be non-significant, indicating that the assumption of homogeneity of regression slopes was satisfied.

5. **Independence of Observations**: Observations were independent, as the study design ensured that there was no overlap or correlation between participants in different groups.
6. **Reliability of the Covariate**: The pretest scores used as covariates were reliable and free from measurement error.
7. **Additivity**: The effects of the intervention and the covariate were found to be additive, as no significant interaction between the covariate and the group was observed.

With these assumptions met, the ANCOVA results were valid, leading to the conclusion that the intervention significantly reduced splitting and paranoid ideation in the intervention group. Table 2 presents the Results of One-way Analysis of Covariance (ANCOVA).

Table 2

Results of One-way Analysis of Covariance

Dependent Variable	Group	Sum of Squares	Degrees of Freedom	Mean Square	F	Significance Level	η^2
Splitting	Group	4561.02	1	4561.02	86.33	0.039	0.74
	Pretest	206.7	1	206.7	20.05	0.12	
	Error	91.12	27	3.37			
Paranoid ideation	Group	10154.81	1	10154.81	65.47	0.027	0.68
	Pretest	403.04	1	403.04	11.04	0.39	
	Error	441.45	27	16.35			

The results of the one-way ANCOVA indicate that the intervention had a significant effect on reducing both splitting and paranoid ideation in the intervention group compared to the control group. For splitting, the analysis showed a significant difference between groups, with an F value of 86.33 (p = 0.039), indicating that the intervention significantly reduced splitting. The effect size (η^2 = 0.74) suggests a large impact of the intervention on splitting.

Similarly, for paranoid ideation, there was a significant difference between groups, with an F value of 65.47 (p = 0.027). This shows that the intervention significantly reduced paranoid ideation. The effect size (η^2 = 0.68) indicates a large impact of the intervention on paranoid ideation as well.

The covariate (pretest scores) did not have a significant effect on either splitting (p = 0.12) or paranoid ideation (p = 0.39), meaning the changes observed were primarily due to the intervention itself rather than pre-existing differences in the pretest scores. Overall, the findings suggest that the intervention effectively reduced both splitting and paranoid ideation with large effect sizes. Therefore, the intervention has significantly reduced splitting and Paranoid ideation in our sample.

Discussion and Conclusion

The current research aimed to investigate the effectiveness of mentalization based therapy on splitting and paranoid ideation in patients with borderline personality disorder. The results indicated that mentalization based therapy leads to a decrease in splitting among patients with borderline personality disorder. This finding aligns with previous studies (Einy et al., 2018; Jørgensen et al., 2013). theory of mentalization dysfunction suggested that the apparent inability to process mental states effectively and splitting the emotions, cognitions and people, in an attachment context was a defensive reaction to physical or sexual abuse, which led to a decoupling of mental processes supporting thinking about feelings and thoughts in self and others (Fonagy, 1991). When confronted with stress, these individuals are more likely to react by decoupling their capacity to deal with their own or others' mental states and split, particularly in an attachment context (Fonagy et al., 1996). Decoupling's consequence is the reemergence of modes of thinking about internal states that antedate the fully fledged mentalizing capacity of the adult (Bateman et al., 2023). The key features of this MBT psychotherapeutic approach that addresses decoupling summarizes as follows: (1) The therapist is asked exclusively to focus on patients' current mental state (their thoughts, feelings, wishes, and desires) with the aim of building up representations of internal states. (2) The therapist is asked to avoid situations in which the

patient talks of mental states that he or she cannot link to subjectively felt reality (3) In this way the therapy creates a transitional area of relatedness in which thoughts and emotions can be "played with." (4) The inevitable enactments over the course of the treatment are not interpreted or understood in terms of their unconscious meaning but in terms of the situation and affects immediately before the enactment (Bateman & Fonagy, 2020)

The results also showed that mentalization based therapy significantly decreased paranoid ideation among patients with borderline personality disorder. This finding is convergent with previous studies (Malda-Castillo et al., 2019; Vogt & Norman, 2019). According to Mentalization theory, If the caregivers around the infant are not reliably responsive, not benign, and/or not able to recognize what is meaningful and relevant to the infant's self, this can undermine the development of epistemic trust, leading to paranoid ideation (Nolte et al., 2023). What MBT does for paranoid ideation, can be traced in findings of a qualitative study that showed through MBT patients learned not to suppress, not to make assumptions or jump to conclusions about what other people are thinking and they also recognized that they cannot know what another person is thinking, and sometimes by actively question other people about their thoughts and motivations. They described learning to communicate in ways that were constructive and did not damage relationships. Other helpful techniques mentioned included reducing avoidance of social interactions, being more aware of others' feelings, asking for support from others and being more assertive (Barnicot et al., 2022).

Like any other study, the current research faced with some limitations. due to the use of self-report tools instead of studying actual behavior, may have encouraged participants to employ strategies based on seeking social approval and avoiding the stigma associated with personal inadequacy. The research design was a quasi-experimental design, which makes it difficult to generalize the findings. Additionally, the study was conducted in a specific cultural and urban context (Tehran), which may not reflect the dynamics of couples in different regions or cultures. The absence of a follow-up period to examine the stability of the treatment effects is considered another limitation of this study. Future research could address the limitations of

the current study by incorporating a larger, more diverse sample size and employing random sampling techniques to enhance the generalizability of the findings. It's also recommended to use more concrete and in-depth tools to earn more reliable data. To examine the stability of therapeutic effects, it is recommended to use follow-up periods.

The findings from this study underline the benefits of Mentalization based therapy in addressing splitting and paranoid ideation among borderline personality disorder patients. this study highlights the importance of addressing splitting and paranoid ideation as a means to improve BPD patients' communicational problems. In summary, while this study highlights the effectiveness of metallization-based therapy (MBT) in reducing splitting and paranoid ideation in borderline personality disorder (BPD) patients, there are key limitations, including reliance on self-report tools, a quasi-experimental design, and the lack of follow-up. Future research should use randomized controlled trials, incorporate diverse samples, utilize more reliable assessment methods, and include follow-up periods to evaluate long-term effects. Expanding MBT's application to other clinical populations and exploring its integration with other therapies are also recommended to further enhance its therapeutic potential.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contributed to this study.

References

American Psychiatrists Association. (2023). *Understanding Mental Disorders: Your Guide to DSM-5-TR®*. American Psychiatric Pub. https://doi.org/10.1176/appi.books.9781615375370

Bales, D., van Beek, N., Smits, M., Willemsen, S., Busschbach, J. J., Verheul, R., & Andrea, H. (2012). Treatment outcome of 18-month, day hospital mentalization-based treatment (MBT) in patients with severe borderline personality disorder in the Netherlands. *Journal of personality disorders*, 26(4), 568-582. https://doi.org/10.1521/pedi_2012_26_021

Barnicot, K., Redknap, C., Coath, F., Hommel, J., Couldrey, L., & Crawford, M. (2022). Patient experiences of therapy for borderline personality disorder: Commonalities and differences between dialectical behaviour therapy and mentalization-based therapy and relation to outcomes. *Psychology and Psychotherapy: Theory, Research and Practice*, 95(1), 212-233. https://doi.org/10.1111/papt.12362

Bateman, A., Campbell, C., & Fonagy, P. (2021). Rupture and repair in mentalization-based group psychotherapy. *International Journal of Group Psychotherapy*, 71(2), 371-392. https://doi.org/10.1080/00207284.2020.1847655

Bateman, A., Rüfenacht, E., Perroud, N., Debbané, M., Nolte, T., Shaverin, L., & Fonagy, P. (2023). Childhood maltreatment, dissociation and borderline personality disorder: Preliminary data on the mediational role of mentalizing in complex post-traumatic stress disorder. *Psychology and Psychotherapy: Theory, Research and Practice*. https://doi.org/10.1111/papt.12514

Bateman, A. W., & Fonagy, P. (2020). Mentalization-based treatment for BPD. In (pp. 187-201). Routledge. https://doi.org/10.4324/9781003063872-15

Brodsky, B. S., Groves, S. A., Oquendo, M. A., Mann, J. J., & Stanley, B. (2006). Interpersonal precipitants and suicide attempts in borderline personality disorder. *Suicide and Life-Threatening Behavior*, 36(3), 313-322. https://doi.org/10.1521/suli.2006.36.3.313

Coifman, K. G., Berenson, K. R., Rafaeli, E., & Downey, G. (2012). From negative to positive and back again: polarized affective and relational experience in borderline personality disorder. *Journal of abnormal psychology*, 121(3), 668. https://cupola.gettysburg.edu/psyfac/10/

Combs, D. R., Penn, D. L., & Fenigstein, A. (2002). Ethnic differences in subclinical paranoia: an expansion of norms of the paranoia scale. *Cultural Diversity and Ethnic Minority Psychology*, 8(3), 248. https://www.wikidata.org/wiki/Q46944464

De Meulemeester, C., Lowyck, B., & Luyten, P. (2021). The role of impairments in self-other distinction in borderline personality disorder: A narrative review of recent evidence. *ScienceDirect*. https://doi.org/10.1016/j.neubiorev.2021.04.022

De Oliveira, C., Rahioui, H., Smadja, M., Gorsane, M. A., & Louppe, F. (2017). Mentalization based treatment and borderline personality disorder. *Encephale*, 43(4), 340-345. https://doi.org/10.1016/j.encep.2016.02.020

Einy, A., Narimani, M., Atadokht, A., Basharpoor, S., & Sadeghi Movahhed, F. (2018). Effectiveness of Mentalization based Therapy and Cognitive-Analytical Therapy on Improved Object Relationship of People with Borderline Personality Disorder: A comparison [Descriptive]. *Payesh (Health Monitor) Journal*, 17(3), 275-287. http://imtj.gmu.ac.ir/browse.php?a_id=3183&sid=1&slc_lang=fa&html=1

Fenigstein, A., & Vanable, P. A. (1992). Paranoia and self-consciousness. *Journal of personality and social psychology*, 62(1), 129. https://doi.org/10.1037/0022-3514.62.1.129

Fertuck, E. A., Fischer, S., & Beeney, J. (2018). Social cognition and borderline personality disorder: splitting and trust impairment findings. *Psychiatric Clinics*, 41(4), 613-632. https://doi.org/10.1016/j.psc.2018.07.003

Fertuck, E. A., Grinband, J., & Stanley, B. (2013). Facial trust appraisal negatively biased in borderline personality disorder. *Psychiatry research*, 207(3), 195-202. https://doi.org/10.1016/j.psychres.2013.01.004

Fonagy, P. (1991). Thinking about thinking: Some clinical and theoretical considerations in the treatment of a borderline patient. *International Journal of psychoanalysis*, 72(4), 639-656. https://pep-web.org/browse/document/IJP.072.0639A

Fonagy, P., Leigh, T., Steele, M., Steele, H., Kennedy, R., Mattoon, G., Target, M., & Gerber, A. (1996). The relation of attachment status, psychiatric classification, and response to psychotherapy. *Journal of consulting and clinical psychology*, 64(1), 22. https://doi.org/10.1037/0022-006X.64.1.22

Freeman, D., Garety, P. A., Bebbington, P. E., Smith, B., Rollinson, R., Fowler, D., Kuipers, E., Ray, K., & Dunn, G. (2005). Psychological investigation of the structure of paranoia in a non-clinical population. *The British Journal of Psychiatry*, 186(5), 427-435. https://doi.org/10.1192/bjp.186.5.427

Gould, J. R., Prentice, N. M., & Aisnlie, R. C. (1996). The Splitting Index: Construction of a scale measuring the defense mechanism of splitting. *Journal of Personality Assessment*, 66(2), 414-430. https://doi.org/10.1207/s15327752jpa6602_18

Jørgensen, C. R., Freund, C., Bøye, R., Jordet, H., Andersen, D., & Kjølbye, M. (2013). Outcome of mentalization-based and supportive psychotherapy in patients with borderline personality disorder: a randomized trial. *Acta Psychiatrica Scandinavica*, 127(4), 305-317. https://doi.org/10.1111/j.1600-0447.2012.01923.x

Kernberg, O. (1967). Borderline personality organization. *Journal of the American Psychoanalytic Association*, 15(3), 641-685. https://doi.org/10.1177/000306516701500309

Kernberg, O. F. (2023). Object relations theory and transference analysis. *FORUM DER PSYCHOANALYSE*. https://www.amazon.com/Object-Relations-Theory-Clinical-Psychoanalysis/dp/1568216122

Klein, M. (1959). Our adult world and its roots in infancy. *Human Relations*, 12(4), 291-303. https://doi.org/10.1177/001872675901200401

Kogan-Goloborodko, O., Brügmann, E., Repple, J., Habel, U., & Clemens, B. (2016). Experimentally Assessed Reactive Aggression in Borderline Personality Disorder. *PLoS One*, 11(11), e0166737. https://doi.org/10.1371/journal.pone.0166737

Kvarstein, E. H., Pedersen, G., Urnes, Ø., Hummelen, B., Wilberg, T., & Karterud, S. (2015). Changing from a traditional psychodynamic treatment programme to mentalization-based

treatment for patients with borderline personality disorder-Does it make a difference? *Psychology and Psychotherapy: Theory, Research and Practice*, *88*(1), 71-86. https://doi.org/10.1111/papt.12036

Leichsenring, F., Fonagy, P., Heim, N., Kernberg, O. F., Leweke, F., Luyten, P., Salzer, S., Spitzer, C., & Steinert, C. (2024). Borderline personality disorder: a comprehensive review of diagnosis and clinical presentation, etiology, treatment, and current controversies. *World Psychiatry*, *23*(1), 4-25. https://doi.org/10.1002/wps.21156

Malda-Castillo, J., Browne, C., & Perez-Algorta, G. (2019). Mentalization-based treatment and its evidence-base status: A systematic literature review. *Psychology and Psychotherapy: Theory, Research and Practice*, *92*(4), 465-498. https://doi.org/10.1111/papt.12195

Merrett, Z., Castle, D. J., Thomas, N., Toh, W. L., Beatson, J., Broadbear, J., Rao, S., & Rossell, S. L. (2022). Comparison of the phenomenology of hallucination and delusion characteristics in people diagnosed with borderline personality disorder and schizophrenia. *Journal of personality disorders*, *36*(4), 413-430. https://doi.org/10.1521/pedi.2022.36.4.413

Miano, A., Fertuck, E. A., Arntz, A., & Stanley, B. (2013). Rejection sensitivity is a mediator between borderline personality disorder features and facial trust appraisal. *Journal of personality disorders*, *27*(4), 442-456. https://doi.org/10.1521/pedi_2013_27_096

Miano, A., Fertuck, E. A., Roepke, S., & Dziobek, I. (2017). Romantic relationship dysfunction in borderline personality disorder-a naturalistic approach to trustworthiness perception. *Personality Disorders: Theory, Research, and Treatment*, *8*(3), 281. https://doi.org/10.1037/per0000196

Mills, A., Gilbert, P., Bellew, R., McEwan, K., & Gale, C. (2007). Paranoid beliefs and self-criticism in students. *Clinical Psychology & Psychotherapy*, *14*(5), 358-364. https://doi.org/10.1002/cpp.537

Nolte, T., Hutsebaut, J., Sharp, C., Campbell, C., Fonagy, P., & Bateman, A. (2023). The role of epistemic trust in mentalization-based treatment of borderline psychopathology. *Journal of personality disorders*, *37*(5), 633-659. https://doi.org/10.1521/pedi.2023.37.5.633

Petersen, R., Brakoulias, V., & Langdon, R. (2016). An experimental investigation of mentalization ability in borderline personality disorder. *Compr Psychiatry*, *64*, 12-21. https://doi.org/10.1016/j.comppsych.2015.10.004

Torgersen, S., Oldham, J., Skodol, A., & Bender, D. (2014). Prevalence, sociodemographics, and functional impairment. *Journal of personality disorders*, *28*(4), 610-616. https://psycnet.apa.org/record/2014-23578-006

Vogt, K. S., & Norman, P. (2019). Is mentalization-based therapy effective in treating the symptoms of borderline personality disorder? A systematic review. *Psychology and Psychotherapy: Theory, Research and Practice*, *92*(4), 441-464. https://doi.org/10.1111/papt.12194