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Trauma and Outcomes of Mentalization-Based Therapy for Individuals With Borderline Personality Disorder

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Objective: Recent meta-analyses suggest that many patients with borderline personality disorder have a history of complex trauma. Although trauma is central in mentalization-based approaches to the understanding of borderline personality disorder, surprisingly little is known about the effects of trauma on outcomes of mentalization-based treatment (MBT). This article investigates the prevalence and impact of childhood trauma among patients with borderline personality disorder participating in a randomized controlled trial (RCT) comparing day hospital MBT (MBT-DH) and intensive outpatient MBT (MBT-IOP).

Methods: All 114 patients from the original multicenter RCT in the Netherlands were included in this study. Childhood trauma was assessed at baseline (with the Childhood Trauma Questionnaire), and its impact on symptom severity, interpersonal functioning, and borderline pathology was investigated through multilevel modeling for 36 months after the start of treatment.

Results: Childhood trauma was common among patients with borderline personality disorder referred to MBT, with more than 85% meeting cutoff criteria for substantial childhood trauma. Childhood trauma had little impact on outcomes of either MBT-DH or MBT-IOP in terms of improved borderline personality disorder features or interpersonal functioning. However, patients with substantial childhood trauma seemed to improve more rapidly with MBT-DH, as compared with MBT-IOP, in terms of symptom severity. In addition, patients with a history of emotional neglect showed more rapid changes in symptoms of borderline personality disorder with MBT-DH compared with MBT-IOP.

Conclusions: Findings are discussed in the context of a social communicative approach to borderline personality disorder, with a focus on the need to address trauma in MBT.

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Mentalizing approaches to the understanding and treatment of borderline personality disorder focus on three key capacities that are centrally implicated in the development of this debilitating disorder: the capacity to establish healthy attachment relationships, the capacity to mentalize (i.e., understand self and others in terms of intentional mental states), and the capacity for epistemic trust (i.e., openness to receiving social communications as potentially personally relevant and of generalizable significance). There is increasing evidence that trauma, particularly attachment trauma or so-called complex trauma, is associated with disruptions in each of these three capacities (1). Yet, little is known about the impact of complex trauma and trauma-related disorders, such as posttraumatic stress disorder (PTSD), on treatment outcomes for borderline personality disorder. A recent systematic review and meta-analysis of psychotherapy for PTSD among patients with borderline personality disorder found evidence for the safety and efficacy of different types of psychotherapy (2). For instance, Bohus and colleagues (3) developed a modular treatment for

trauma and PTSD that is based on principles derived from dialectical behavior therapy. Similarly, within mentalization-based treatment (MBT) there has been an increasing emphasis on addressing complex trauma more explicitly; recent efforts have focused on the development and evaluation of a specific trauma-based module as part of MBT (4, 5). However,

HIGHLIGHTS

- Childhood trauma was common among the patients with borderline personality disorder referred for mentalization-based treatment (MBT).
- Childhood trauma had little impact on outcome of either day hospital MBT (MBT-DH) or intensive outpatient MBT (MBT-IOP), although patients with high levels of childhood trauma seemed to improve in terms of symptom severity more rapidly with MBT-DH compared with MBT-IOP.
- Treatments for patients with borderline personality disorder need to focus on childhood trauma.

no study has yet investigated the impact of trauma on outcomes of MBT among patients with borderline personality disorder.

This study is the first to empirically investigate the impact of childhood trauma on outcomes in two types of MBT for borderline personality disorder. We first review current perspectives on trauma and borderline personality disorder from a mentalizing approach, including a brief summary of principles in the treatment of trauma in MBT. Next, we report findings from a study investigating the prevalence and impact of childhood trauma on treatment outcomes among patients with borderline personality disorder in the context of a multisite randomized controlled trial (RCT) comparing two types of MBT—namely, MBT offered in the context of a day hospitalization program (MBT-DH) and intensive outpatient MBT (MBT-IOP)—from start of treatment to 36-month follow-up.

MENTALIZING APPROACH TO TRAUMA IN BORDERLINE PERSONALITY DISORDER

Complex trauma, also referred to as attachment trauma, developmental trauma, or type II trauma (as opposed to type I trauma, which refers to discrete types of traumas), involves prolonged experience of neglect and/or abuse, typically within an attachment or caregiving context. This experience represents to the child an unsolvable dilemma because the caregivers who are supposed to protect and care for the child are also a source of anxiety, threat, anger, neglect, and/or abuse (6–9). Complex trauma typically is also part of a broader risky environment, characterized by abuse and neglect (10, 11).

There is good evidence, based on both cross-sectional and prospective studies, that complex trauma is implicated in the emergence of borderline personality disorder in at least a sizeable proportion of patients, with some studies suggesting that up to 90% of these patients report such a history (12–15). Yet, these findings should not be interpreted as suggesting a purely environmental perspective on vulnerability to the disorder, because a subsample of individuals with borderline personality disorder do not report a history of early adversity (16, 17). Moreover, individual variables, including genetic and temperamental factors, may moderate the impact of early adversity on development of the disorder (18). For instance, the heritability of borderline personality disorder has been estimated to range between 40% and 50% (19–22), and several studies have suggested the importance of considering gene-environment interactions, with the effects of trauma depending in part on genetic vulnerability (18, 23).

Hence, the role of complex trauma should be considered within a broader socioecological framework, with the interactions between environmental and biological factors disrupting the evolutionarily prewired human capacity for

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social learning and salutogenesis (i.e., the capacity to benefit from positive social input) by their negative effects on the capacity to form healthy attachment relationships, mentalize, and have epistemic trust.

Below, we discuss the impact of trauma on each of these domains.

Trauma and Attachment Relationships

The impact of complex trauma on attachment and mentalizing has been demonstrated. In normative development, the attachment system is activated in response to threat (24, 25), leading the individual to seek proximity to responsive attachment figures, which leads in turn to downregulation of distress and discomfort. At the neurobiological level, this response is mediated by a mesocorticolimbic dopaminergic reward system that plays an essential role in downregulating the stress system and is responsible for feeling supported, validated, and understood by close others (26, 27). Trauma typically disrupts the virtuous cycle associated with proximity seeking in the face of stress and adversity, as the individual begins to rely excessively either on attachment hyperactivating or deactivating strategies, or a combination of both. These strategies are considered to be adaptations to an environment characterized by inconsistency in, unresponsiveness of, and/or abuse by attachment figures (28–30). From this perspective, attachment deactivating strategies develop as a means to deal with the (perceived) unresponsiveness of attachment figures. Attachment hyperactivating strategies, in turn, tend to develop as an attempt to elicit care and support from inconsistently responsive attachment figures. Disorganized attachment, characterized by the oscillation between attachment hyperactivating and deactivating strategies, is thought to primarily develop in individuals with a history of complex trauma. These individuals typically find themselves in a catch-22 situation because the same caregivers who are expected to be supportive and comforting, thereby downregulating distress, are also the source of conflict, abuse, and/or neglect (31). A continuous approach-avoidance conflict in relationships emerges, which may help to explain the marked oscillation typical of these individuals' attachment relationships, leading to severe impairments in the capacity to seek help from others, including mental health professionals (32, 33). Consistent with these assumptions, studies have reported high rates of both preoccupied (reflecting attachment hyperactivating strategies) and disorganized (reflecting a combination of attachment hyperactivating and deactivating strategies) attachment among individuals with borderline personality disorder (34, 35).

Trauma, Mentalizing, and Revictimization

The pernicious impact of trauma on mentalizing has also been amply demonstrated (4). Growing up in an environment

characterized by abuse and/or neglect is hypothesized to undermine the capacity for mentalizing, particularly in the case of attachment trauma, because the individual is deprived of a responsive caregiver, which is essential to acquiring the capacity to regulate stress and arousal. Feelings of isolation and loneliness typically characterize individuals with borderline personality disorder and a history of trauma, as does their tendency to act out these unmentalized experiences of the self and others as being bad, evil, neglected, neglectful, or unworthy, resulting in reenactment that leads to revictimization (36, 37). Theoretically, revictimization is linked to the familiar yet highly maladaptive pattern where the abuser acts as both the source of anxiety, anger, and conflict, and the source of care, love, and support (33), thereby repeating the unsolvable approach-avoidance conflict typical of the disorganized or disoriented attachment pattern characteristic of many individuals with borderline personality disorder. Moreover, many individuals with a history of trauma perpetrate abuse on their children, partner, and/or others in their environment (e.g., friends, coworkers, employees) because specific features in others (e.g., talent or submissiveness) may trigger their own past experiences of abuse and/or neglect. When the individual is faced with the inability to reflect on these unmentalized experiences, nonmentalizing modes of experiencing both the self and others tend to reemerge, further impairing opportunities to recalibrate one's mind.

Trauma and Epistemic Trust

Evidence, although inconclusive, is also emerging that trauma, and particularly attachment trauma, may undermine epistemic trust (i.e., the willingness and openness to consider new knowledge acquired by means of social communications as trustworthy, potentially personally relevant, and of generalizable significance to integrate into one's life) (38). As a result, the traumatized individual may become completely cut off from social learning and salutogenesis (1, 39). Epistemic vigilance among traumatized individuals may also be accompanied by initial excessive epistemic credulity, often driven by strong wishes to be able to rely on a trusted other, rendering such individuals vulnerable to exploitation and abuse, which then further increases their epistemic vigilance (38).

MBT AND TRAUMA

MBT centrally focuses on improving the capacity for mentalizing and epistemic trust, particularly in the context of attachment relationships, with the aim of fostering salutogenesis (40). Hence, the main aim of MBT is not just to improve symptoms and relational functioning but also to enable further personal growth. MBT has a core focus on the dominant interaction patterns resulting from mentalizing vulnerabilities, specifically in the context of attachment relationships. Work centered on trauma has therefore always been an important focus of MBT for borderline personality disorder because most patients have a history of complex

trauma, yet recent developments have further stressed the importance of trauma work in MBT.

Research has supported the effectiveness of MBT for patients with high levels of trauma, such as those with borderline or antisocial personality disorder (1, 41). Both RCTs and naturalistic studies have shown continuing improvement in areas such as interpersonal relationships, work, and education, for up to 8 years after the end of MBT (42). Findings that mentalizing, and the capacity to reflect on traumatic experiences in particular (i.e., trauma-specific reflective functioning), provide an important buffer between trauma, features of PTSD such as dissociation, and intergenerational transmission of trauma (43), have further substantiated the mentalizing approach to trauma. Moreover, there is increasing evidence for the effectiveness of preventive interventions rooted in MBT for families at risk for maltreatment and abuse (44–47). Yet, no study to date has directly investigated the impact of trauma on outcomes of MBT among individuals with borderline personality disorder.

PRESENT STUDY

This study was the first to directly investigate the prevalence of trauma among patients with borderline personality disorder referred to MBT and to investigate the impact of trauma on MBT outcomes in the context of a multicenter RCT comparing MBT-DH and MBT-IOP, from start of treatment to 36-month follow-up. Both treatment programs have been associated with medium-to-large effects, as assessed by a wide range of outcome measures, at 18- and 36-month follow-up. MBT-DH was not superior in terms of effectiveness, nor more cost-effective, compared with MBT-IOP (48, 49; Blankers et al., 2021, unpublished manuscript).

Consistent with previous findings concerning high levels of early adversity among patients with borderline personality disorder, and the focus of MBT on the most severely affected patients with borderline personality disorder, we expected to find substantial childhood trauma among patients with borderline personality disorder referred to MBT. Second, because studies generally have suggested a negative impact of early adversity on treatment outcomes (31), we expected that trauma would negatively affect MBT outcomes. Because MBT focuses on improving functioning beyond symptom severity, we included not only general distress but also interpersonal functioning and borderline personality disorder symptoms as outcome measures. Finally, because there were no differences in outcomes associated with MBT-DH and MBT-IOP in the current trial at 18- and 36-month follow-up (48, 49), we expected to find no differences in the effect of trauma on outcomes in the two types of MBT.

METHODS

Participants and Procedures

This study was approved by the Medical Ethical Committee of Erasmus Medical Center, Rotterdam, the Netherlands

(NL38571.078.12). Written informed consent was obtained, and the study was registered at the Netherlands Trial Register (NTR2292). Inclusion and exclusion criteria, patient characteristics, and randomization procedures (including study enrollment and allocation) have been described previously (48). Of the 114 randomly assigned patients from the original trial, only 83 patients (MBT-IOP, $N=34$; MBT-DH, $N=49$) had data available on childhood trauma, because the trauma assessment was included after inclusion had already started. Patients were assessed at baseline, prior to random assignment, and were then assessed on a range of outcome measures every 6 months, from start of treatment until 36 months afterward.

Measures

The primary outcome measure was symptom severity as assessed by the Global Severity Index of the Brief Symptom Inventory (50, 51). Secondary outcomes were features of borderline personality disorder, as measured by the Personality Assessment Inventory–Borderline Features Scale (52), and interpersonal functioning, as assessed by the Inventory of Interpersonal Problems (53, 54).

The prevalence of trauma in childhood was measured with the Dutch version of the Childhood Trauma Questionnaire (CTQ) (55). The CTQ is a retrospective self-report questionnaire that measures five categories of childhood trauma, including emotional, physical, and sexual abuse and emotional and physical neglect. Each subscale is measured with five items rated on a 5-point Likert scale: never true, rarely true, sometimes true, often true, and very often true. Each subscale score ranges from 5, no history of abuse or neglect, to 25, extreme history of abuse and neglect. In this study, participants were classified as having a substantial history of childhood trauma in any of five specific categories by using the following cutoff scores from the CTQ manual: 13 or higher for emotional abuse, 10 or higher for physical abuse, 8 or higher for sexual abuse, 15 or higher for emotional neglect, and 10 or higher for physical neglect. Research has shown good psychometric properties for both the original CTQ (55, 56) and the Dutch translation (57).

Treatment Interventions

A detailed description of MBT-DH and MBT-IOP has been provided elsewhere (48). Briefly, MBT-DH consisted of a 5-day per week hospitalization program, and MBT-IOP consisted of a 2-day per week outpatient treatment program. Both MBT-DH and MBT-IOP included weekly individual sessions, but the intensity of group therapy differed markedly between the programs. Treatment adherence to the MBT model during the intensive treatment phase was rated as adequate by three independent raters and did not differ between the treatment groups.

Statistical Analyses

Analyses were performed on all available data by using SPSS Statistics, version 25.0, for Windows. The prevalence of

trauma was examined by using both dimensional (means) and categorical scores on the CTQ at baseline, with two-tailed independent sample t tests and chi-square tests, as appropriate.

For predictor and moderator analyses, multilevel random-effect modeling was used to best accommodate the missing data that are inevitable in longitudinal follow-up and to deal with the dependency of repeated measures within subjects over time. Time points were coded $-6, -5, -4, -3, -2, -1$, and 0 , implying that regression coefficients involving time measured the rate of change from baseline to the 36-month follow-up and regression intercepts referenced group differences at the last time point. On the basis of previous analyses, random slopes of change were assumed. Models with quadratic time functions or quadratic (interaction) terms did not show a better fit on the basis of Akaike's information criterion (58) or Schwarz's Bayesian information criterion (59). For parsimony, we therefore report linear models. Treatment groups were coded $0=$ MBT-IOP and $1=$ MBT-DH. Consequently, differences in slope refer to differences in the slope of MBT-DH compared with MBT-IOP. For the mixed models, the main effect of trauma is reported, along with the interaction effects with treatment group and the rate of change from baseline to 36 months across all levels of trauma (for both treatment groups combined). The critical coefficients for each trauma predictor were, first, the two-way trauma (present or absent) predictor \times time interaction, indicating the predictive value of the level of trauma on the rate of change, and then the three-way predictor \times time \times group interaction, indicating the moderating role of trauma on the rate of change. To investigate the robustness of the models, we also performed mixed model analyses for the two-way interaction (predictor \times time) separately. Because these analyses yielded similar results, only estimates from the three-way interaction model are reported. Results of the two-way interaction models are available by request from the first author (M.L.S.).

RESULTS

Prevalence of Trauma

There were no significant pretreatment differences between patients randomly assigned to MBT-IOP or to MBT-DH in terms of demographic or clinical characteristics or baseline prevalence of outcome measures (Table 1). There were also no differences in the prevalence of trauma types and overall trauma between patients in the two groups. In total, 86% of patients had scores above the cutoff point for the presence of substantial trauma in at least one of the trauma categories (Table 1). Emotional neglect was most common (66%), followed by emotional abuse (57%) and sexual abuse (40%). Physical neglect (37%) and physical abuse (22%) were somewhat less prevalent, but rates were substantially higher than among community samples. Approximately 60% of patients reported experiencing two or more types of trauma; less than 15% did not meet criteria for substantial trauma.

TABLE 1. Substantial childhood trauma among patients in MBT-DH and MBT-IOP^a

CTQ outcome measure	Total (N=83)				MBT-IOP (N=34)				MBT-DH (N=49)				p ^b
	M	SD	N	%	M	SD	N	%	M	SD	N	%	
Physical abuse	7.60	4.52	18	22	7.00	3.62	6	18	8.02	5.05	12	25	.457
Physical neglect	8.95	3.11	31	37	9.18	3.42	13	38	8.80	2.90	18	37	.889
Sexual abuse	8.76	5.45	33	40	8.00	4.82	11	32	9.29	5.84	22	45	.251
Emotional abuse	14.87	5.48	47	57	13.88	5.04	18	53	15.55	5.72	29	59	.573
Emotional neglect	16.00	4.97	55	66	15.32	4.80	22	65	16.47	5.08	33	67	.802
Total score	56.18	17.08			53.38	15.73			58.12	17.87			
≥1 trauma category above cutoff score			71	86			29	85			42	86	.957
Categories above cutoff score													.581
0			12	15			5	15			7	14	
1			19	23			8	24			11	22	
2			18	22			8	24			10	20	
3			14	17			8	24			6	12	
4			13	16			3	9			10	20	
5			7	8			2	6			5	10	

^a CTQ, Childhood Trauma Questionnaire; MBT-DH, mentalization-based treatment–day hospital; MBT-IOP, mentalization-based treatment–intensive outpatient. Each CTQ subscale is measured with five items rated on a 5-point Likert scale: never true, rarely true, sometimes true, often true, and very often true. Each subscale score ranges from 5, no history of abuse or neglect, to 25, history of extreme abuse and neglect.

^b All p values are for chi-square.

TABLE 2. Summary of p values related to interaction effects of trauma as predictor of treatment outcomes overall and between groups^a

CTQ outcome measure	Symptom distress (BSI)		Interpersonal problems (IIP)		Borderline symptomatology (PAI-BOR)	
	Predictor × time	Predictor × time × group	Predictor × time	Predictor × time × group	Predictor × time	Predictor × time × group
Physical abuse	.233	.062	.244	.064	.109	.140
Physical neglect	.449	.025*	.916	.690	.785	.569
Sexual abuse	.139	.017*	.225	.130	.985	.651
Emotional abuse	.149	.019*	.097	.110	.298	.174
Emotional neglect	.044*	.042*	.323	.396	.158	.028*

^a BSI, Brief Symptom Inventory; CTQ, Childhood Trauma Questionnaire; IIP, Inventory of Interpersonal Problems; PAI-BOR, Personality Assessment Inventory–Borderline Features Scale.

* p<.05.

Trauma as a Predictor and Moderator of Treatment Outcome

Results of the multilevel analyses are summarized in Table 2. Multilevel estimates and model parameters from the three-way interaction models of all trauma predictors for each outcome measure are available in the online supplement.

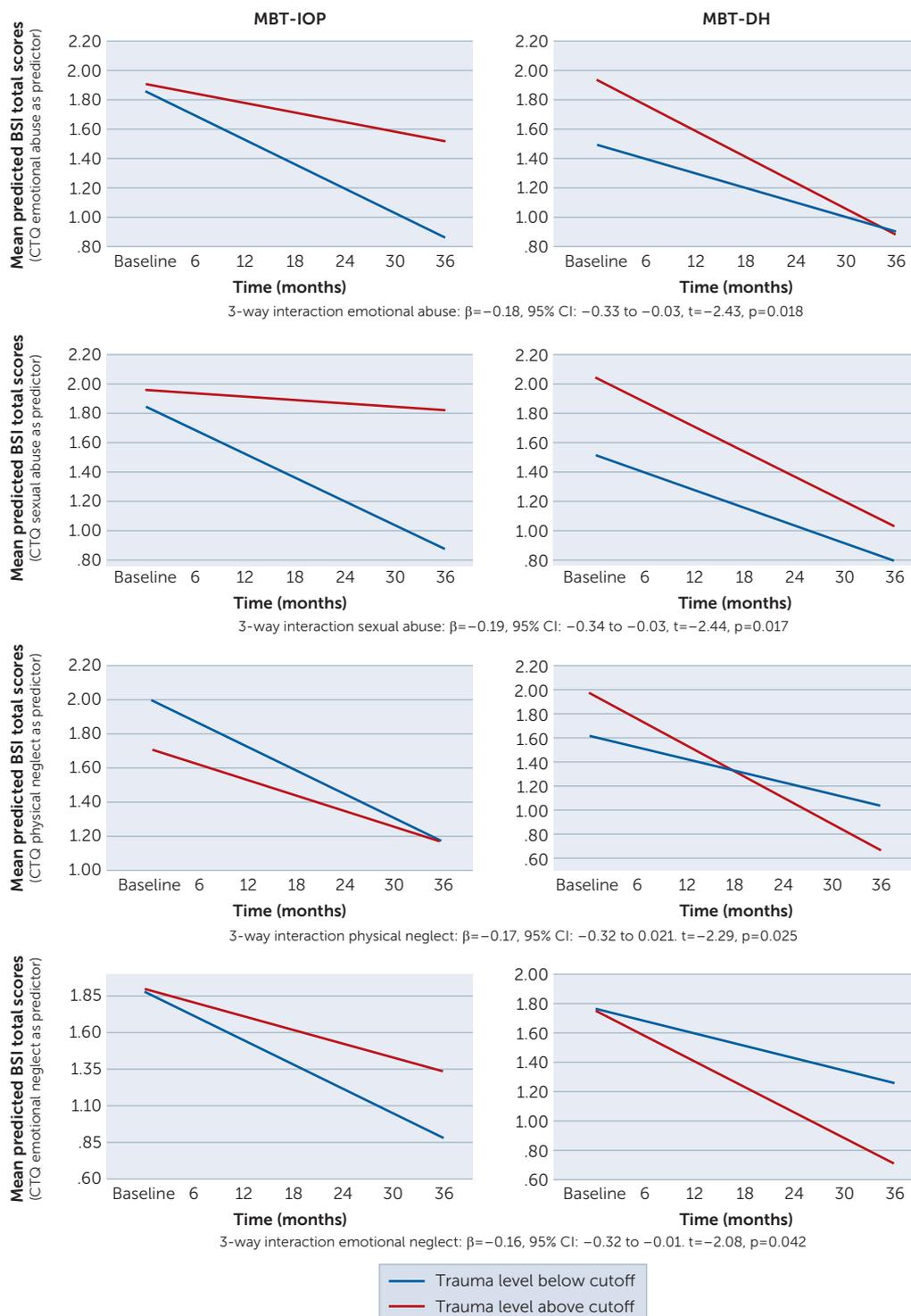
For symptom severity, in contrast to our predictions, patients with and without trauma showed similar rates of change in MBT-DH, and patients with a history of emotional or physical neglect tended to show a faster rate of change in MBT-DH compared with those without such a history (Figure 1). Yet, patients scoring above the cutoff score (indicating substantial emotional neglect, emotional abuse, sexual abuse, or physical neglect) showed a slower rate of change in MBT-IOP compared with patients without trauma. For physical abuse, a similar trend was observed, but this trend did not reach significance (p=0.062). Thus, contrary to our expectations,

trauma had a differential impact on treatment outcome in MBT-IOP and MBT-DH in terms of improvement in general distress.

Trauma was less predictive of treatment outcome in terms of improvement in borderline symptoms and interpersonal problems. For borderline symptoms, only emotional neglect showed a significant moderating effect (p=0.028). As Figure 2 shows, patients in MBT-IOP with substantial emotional neglect showed a slower rate of improvement in borderline personality disorder features compared with those who had not experienced substantial levels of emotional neglect, whereas in MBT-DH, patients with a history of emotional neglect showed a slightly greater rate of improvement compared with those without such a history. None of the other trauma types predicted changes in borderline symptoms in MBT-DH or MBT-IOP.

A trend was observed for history of physical abuse to moderate changes in interpersonal problems in MBT-IOP

FIGURE 1. Improvement in general distress among patients in MBT-IOP and MBT-DH with substantial or no history of emotional abuse, sexual abuse, physical neglect, and emotional neglect^a

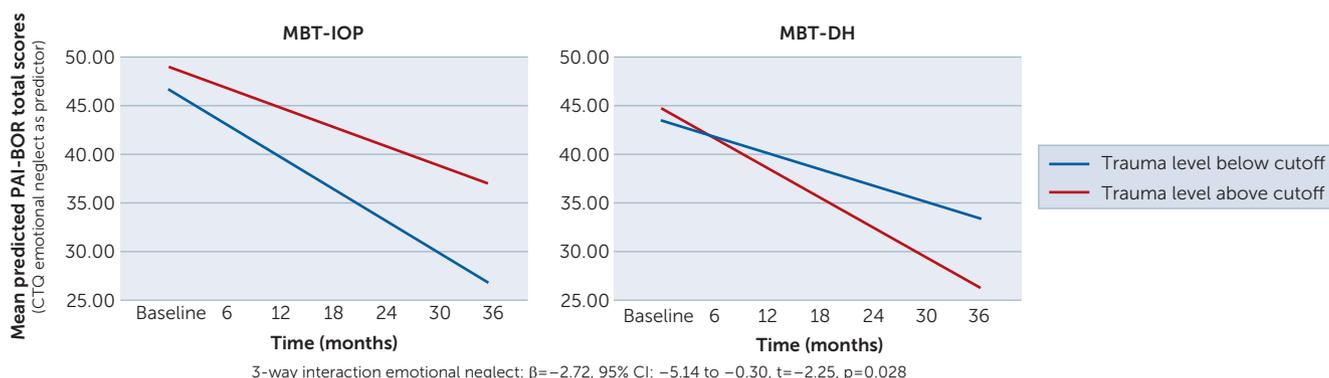


^a BSI, Brief Symptom Inventory; CTQ, Child Trauma Questionnaire; MBT-DH, day hospital mentalization-based treatment; MBT-IOP, intensive outpatient mentalization-based treatment.

versus MBT-DH. Patients with substantial previous physical abuse tended to show a slower rate of change in MBT-IOP compared with those without such a history, whereas in

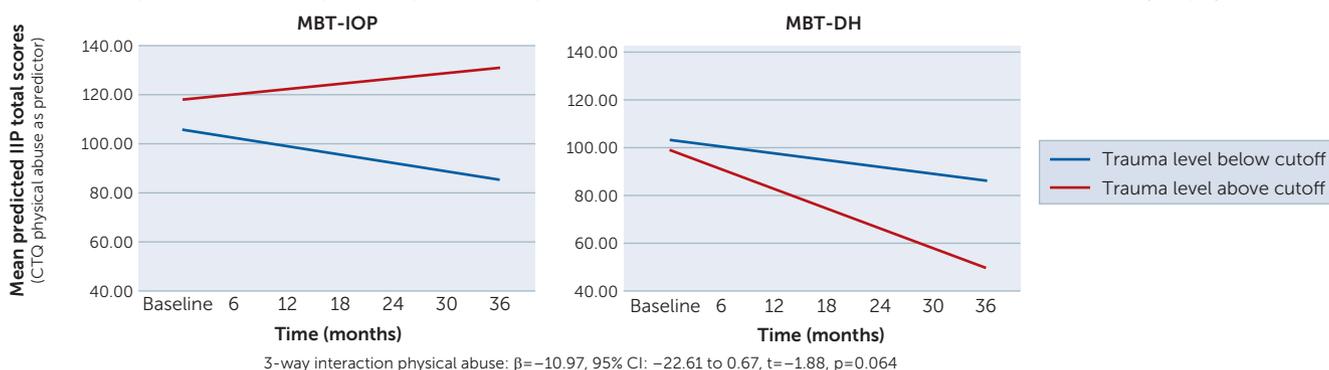
MBT-DH, there was a trend for patients with high levels of physical abuse to show greater improvement in interpersonal problems compared with patients without a history of

FIGURE 2. Improvement in borderline personality disorder symptoms of patients in MBT-IOP and MBT-DH with substantial or no history of emotional neglect^a



^a CTQ, Child Trauma Questionnaire; PAI-BOR, Personality Assessment Inventory–Borderline Features Scale; MBT-DH, day hospital mentalization-based treatment; MBT-IOP, intensive outpatient mentalization-based treatment. Scores on the PAI-BOR range from 0 to 72, with higher scores indicating higher levels of borderline personality disorder features.

FIGURE 3. Improvement in interpersonal problems of patients in MBT-IOP and MBT-DH with substantial or no history of physical abuse^a



^a CTQ, Child Trauma Questionnaire; IIP, Inventory of Interpersonal Problems; MBT-DH, day hospital mentalization-based treatment; MBT-IOP, intensive outpatient mentalization-based treatment. Scores on the IIP range from 0 to 256.

physical abuse (Figure 3). None of the other types of trauma predicted changes in interpersonal problems.

DISCUSSION

Three major sets of findings emerged from this study. First, consistent with studies reporting that up to 90% of individuals with borderline personality disorder have a history of early adversity (12), childhood trauma was common among patients with the disorder referred to MBT, with 86% of patients having scores above the cutoff criteria for substantial childhood trauma. Most patients reported high levels of emotional neglect, emotional abuse, and sexual abuse, whereas physical neglect and physical abuse were somewhat less common, although more prevalent compared with community samples. Importantly, about 15% of these patients with borderline personality disorder did not report childhood trauma.

Second, and contrary to our predictions, childhood trauma was not a strong predictor of outcome in MBT, with some important exceptions. Patients who had experienced emotional neglect, emotional or sexual abuse, or physical neglect in childhood tended to show slower rates of improvement in

terms of symptom severity in MBT-IOP compared with those without a history of such trauma, whereas in MBT-DH, patients with a history of these traumas seemed to show similar, and in some cases greater, rates of improvement in symptom severity compared with those without such a history. The fact that the less intensive outpatient treatment may provide less containment and scaffolding of mentalizing and general functioning compared with the more intensive day hospitalization program may in part explain these findings. Patients with a history of childhood trauma may show higher levels of symptomatic distress during the intensive treatment phase and after the end of treatment in MBT-IOP because these individuals may struggle to develop robust mentalizing, more secure attachment relationships, and epistemic trust, and may find it more difficult to deal with the inevitable struggles and challenges that life brings. Patients with borderline personality disorder with a history of substantial childhood trauma may therefore benefit from the more containing environment of a day hospital setting, leading them to achieve similar and sometimes perhaps even greater improvement than those achievable in an outpatient setting. Moreover, the high levels of epistemic distrust that

are typically associated with trauma may play an important role in this context as well, because patients in MBT-IOP may more readily find themselves in a state of isolation between therapeutic sessions, cut off from interpersonal experiences that allow for recalibration of the mind when faced with new challenges. Although these assumptions remain to be empirically investigated, they are consistent with earlier findings from this trial showing that, on average, it took the patients in MBT-IOP slightly longer to achieve similar therapeutic improvements than the patients in MBT-DH (49).

Finally, trauma seemed to have less impact on changes in borderline personality disorder symptoms and interpersonal problems compared with its impact on general distress, but the few significant findings again favored MBT-DH. Hence, overall, these findings suggested that MBT-DH may be slightly more effective than MBT-IOP in the treatment of patients with substantial childhood trauma. Yet, a greater focus on trauma treatment in the early phase of MBT-IOP might further reduce the observed difference in effectiveness with MBT-DH. Specifically, patients with borderline personality disorder who have experienced severe childhood trauma may require more specific interventions as a critical prerequisite for change in order to develop more robust mentalizing, secure attachment, epistemic trust, and the associated capacity for salutogenesis.

Findings from this study should be interpreted in the context of important limitations. First, childhood trauma was assessed by using a brief self-report measure. Although the validity of the CTQ has been fairly well established, recall and reporting bias may have influenced the findings of this study. Moreover, cutoff criteria used in this study were based on normative data from a U.S. sample. The fact that analyses that used the dimensional scores from the CTQ yielded similar results provide some confidence in the robustness of the findings reported in this study. Second, replication of these findings in larger samples is needed because the relatively small sample size may have limited statistical power. Finally, this study reported post-hoc analyses using data from a larger trial that was not specifically conducted to investigate the impact of trauma on outcome in MBT-DH and MBT-IOP. Hence, the current findings should be considered preliminary.

CONCLUSIONS

Despite these limitations, this study suggested that trauma does not have substantial effects on MBT outcomes for individuals with borderline personality disorder overall, although patients with substantial trauma showed somewhat better outcomes for MBT-DH than for MBT-IOP. More research is needed to investigate whether a greater focus on trauma in the initial phases of MBT may further improve treatment outcomes of MBT for borderline personality disorder and of MBT-IOP specifically.

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Dr. Luyten is involved in the development, training, and dissemination of mentalization-based treatments. The other authors report no financial relationships with commercial interests.

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