MDMA-assisted therapy for borderline personality disorder

ANN M. INOUYE1*, AARON S. WOLFGANG2,3,4 and LIANNE T. PHILHOWER5

1 Alpert Medical School of Brown University, Providence, RI, USA
2 Walter Reed National Military Medical Center, Bethesda, MD, USA
3 Uniformed Services University, Bethesda, MD, USA
4 Yale University School of Medicine, New Haven, CT, USA
5 Hawaii School of Professional Psychology, Chaminade University of Honolulu, Honolulu, HI, USA

ABSTRACT

Associated with high-risk behavior, borderline personality disorder (BPD) remains one of the field’s most misunderstood, misdiagnosed, and stigmatized conditions. Individuals with BPD are frequently labeled as treatment-resistant patients. Furthermore, 25–58% of BPD individuals have a comorbid diagnosis of post-traumatic stress disorder (PTSD), and BPD may be conceptualized as a trauma-spectrum disorder. In Phase 3 clinical trials for 3,4-methylenedioxymethamphetamine (MDMA) full-dose participants for treatment-resistant PTSD found that up to 71.2% no longer met the criteria for PTSD. While PTSD is quite different from BPD, a qualitative exploration on the overlap in etiology and conceptualization provided new perspectives by interviewing two clinicians who focus their treatment with BPD diagnosed individuals and two MDMA-assisted therapy clinicians. This research examines the etiological, conceptualization, and therapeutic mechanisms of MDMA-assisted therapists and dialectical behavioral therapists. Through eight qualitative interviews, perspectives of the four participants revealed the similarities and limitations of both treatments.

KEYWORDS

borderline personality disorder, MDMA, MDMA-assisted therapy, dialectical behavioral therapy, trauma, psychedelics

INTRODUCTION

Individuals with borderline personality disorder (BPD) are characterized as emotionally dysregulated with disturbances in their interpersonal relationships and identity (Linehan, 2016). The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) (American Psychiatric Association, 2013) notes that the essential features of BPD include a pervasive pattern of interpersonal instability, lack of self-identity, and marked impulsivity. Moreover, BPD individuals struggle to preserve personal interests, beliefs, values, and goals that are stable over time and autonomous of influence from others (Jørgensen, 2006). This emotional instability leads to feelings of increased emotional sensitivity, unpredictable mood swings into states wherever the perception of self is distorted, inability to regulate emotions and emotional responses, a poor awareness of reality, an inability to adapt to rapid roles within relationships, and an ambiguous understanding of self-worth (Cattane, Rossi, Lanfredi, & Cattaneo, 2017; Linehan, 2016). Unable to tolerate their reality, BPD individuals tend to project their experiences onto others and often take risks that can hurt themselves and/or others (Linehan, 2016) (Table 1).

Controversy has risen regarding BPD’s nosologic classification as “complex PTSD” (cPTSD), a clinical subgroup that may constitute BPD-PTSD individuals (Frias and Palma, 2015).
Those diagnosed with BPD and comorbid PTSD account for 25–58% of affected individuals, and those diagnosed with PTSD and comorbid BPD account for between 10 and 76% of affected individuals (Pagura et al., 2010). Epidemiological studies report prevalence rates of 30–50% for individuals diagnosed with comorbid PTSD who also meet criteria for BPD (Ford & Courtois, 2014). Furthermore, a hallmark of BPD is pronounced attachment-related issues, often marked by substantial disorganization and insecurity (Ford & Courtois, 2014).

3,4-methylenedioxymethylamphetamine (MDMA) is a psychoactive drug that has proven efficacious in treating complex and treatment resistant PTSD (Feduccia, Holland, & Mittofier, 2018). In 2017, the U.S. Food and Drug Administration (FDA) designated MDMA-assisted therapy (MDMA-AT) as a breakthrough therapy (Burge, 2017), which involves a full-day experimental psychotherapy session with a dyadic team of mental health professionals administering a dose of 125 mg of MDMA, followed by an optional half-dose of 62.5 mg. Pre- and post-experimental sessions foster a therapeutic mindset and consolidation to enhance the therapeutic gains of the experimental session. Generally, patients receive two or three experimental sessions: a preparatory session and multiple integration sessions within a 12-week period (Mittofier et al., 2019).

Preliminary clinical studies for MDMA-AT have shown effective results. For example, six Phase II trials revealed that 54% of the study participants no longer met the PTSD diagnosis compared to 23% in the control group. Furthermore, benefits continued to improve long term; a year later, the number of participants who no longer met the PTSD criteria had risen to 68% (Mittofier et al., 2019). In the Phase III trials, Mitchell et al. (2023) reported that 71% of participants no longer met the criteria for PTSD, and 46.2% met the criteria for remission of PTSD at the primary study endpoint.

Although BPD was introduced into the mental health nomenclature three decades ago, clinical research on BPD has lagged behind other mental health disorders, such as schizophrenia and bipolar disorder. Recognizing this in 2005, the National Institute of Mental Health (NIMH) hosted a conference with twelve BPD experts in epidemiology, phenomenology, neurobiology, and treatment addressing barriers in conducting BPD research (Zanarini 2010). The obstacles that emerged were: 1. Difficulties that surround the validity of informed consent and safety recruiting and treating BPD research subjects; 2. The remission period for BPD is about eight years long; however, research trial lengths are relatively brief, lasting around one to four years; 3. Assessment measures of overall improvement in BPD are not well validated; 4. BPD is complex, with symptoms in multiple domains, yet research investigators may focus on a single or few symptoms (Zanarini, 2010).

Along with available research involving BPD individuals being limited, psychedelic research with BPD participants was identified in only nine studies (Zeifman & Wagner, 2020). Interestingly, psychedelic researcher Peter Gasser (1994), noted “from 1988 to 1993, a significant number of patients with narcissistic personality disorders sought therapy with psychedelic drugs. BPD was also diagnosed rather often, as were depressed mood disorders and adjustment disorders. We can presume that the treatment is well suited for these disorders” (Gasser, 1994, p. 7). Nonetheless, current psychedelic research has excluded BPD individuals from clinical trials (Mittofier, Wagner, Mittofier, Jerome, & Doblin, 2011). In the research on psilocybin, Carhart-Harris et al. (2018) have excluded individuals with BPD due to “[a] psychiatric condition judged to be incompatible with establishing rapport with therapy team and/or safe exposure to psilocybin, e.g., suspected borderline personality disorder” (p. 399). Additional psychedelic research trials excluded individuals with substance abuse or suicide risk which are common BPD symptoms (Zeifman & Wagner, 2020).

### Diagnosis

The DSM-5 (American Psychiatric Association, 2013) is the diagnostic standard for psychiatric disorders. For each disorder, the DSM-5 provides list of symptoms and criteria that warrants a particular diagnosis.

According to the DSM-5 (American Psychiatric Association, 2013, p. 663), BPD is diagnosed based on:

A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

1. Frantic efforts to avoid real or imagined abandonment. p. 663
2. A pattern of unstable and intense interpersonal relationships characterized by extremes between idealization and devaluation. p. 663

---

**Table 1. Summary of results**

<table>
<thead>
<tr>
<th>Code System</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFT/MDMA-AT overlap</td>
<td>83</td>
</tr>
<tr>
<td>Concerns for MDMA-AT for BPD (+)</td>
<td>15</td>
</tr>
<tr>
<td>Modification for BPD Dx</td>
<td>5</td>
</tr>
<tr>
<td>Regression</td>
<td>4</td>
</tr>
<tr>
<td>Limitations of DBT/MDMA-AT treatment alone</td>
<td>0</td>
</tr>
<tr>
<td>Limitations of traditional treatment modalities (not/MDMA-AT)</td>
<td>13</td>
</tr>
<tr>
<td>Somatic</td>
<td>7</td>
</tr>
<tr>
<td>Limitations of MDMA-AT resolved by DBT potentially</td>
<td>12</td>
</tr>
<tr>
<td>Limitations of DBT resolved by MDMA potentially (+)</td>
<td>26</td>
</tr>
<tr>
<td>Conceptualization of BPD patient</td>
<td>24</td>
</tr>
<tr>
<td>Trauma etiology</td>
<td>5</td>
</tr>
<tr>
<td>Attachment</td>
<td>9</td>
</tr>
</tbody>
</table>
3. Identity disturbance: markedly or persistently unstable self-image or sense of self. p. 663
4. Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating). (Note: Do not include suicidal or self-mutilating behavior covered in Criterion 5.). p. 663
5. Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior. p. 663
6. Affective instability due to marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days). p. 663
7. Chronic feelings of emptiness. p. 663
8. Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights). p. 663
9. Transient, stress-related paranoid ideation or severe dissociative symptoms. p. 663

Skoglund et al. (2021) show that the percentage of BPD individuals with psychiatric comorbidities is 95.7%, compared to 11.3% in non-BPD individuals. The most common comorbidities were anxiety disorders (75.7%), affective disorders (76.0%), substance use disorders (48.6%), attention-deficit/hyperactivity disorder (30%), and neurodevelopmental disorders (31.1%).

### Demographics

About 0.5–2.7% of the general population meets the DSM-5 criteria of BPD and 15–25% of inpatient psychiatric population (Wu et al., 2022). BPD patients utilize clinical settings at a higher frequency and tend to terminate treatment within the first three months while utilizing multiple services and clinicians simultaneously. Compared to other personality disorders, individuals with BPD receive significantly more psychosocial treatment and try more medication regimens (Bender et al., 2001).

The prevalence of BPD in the greater community at between 0.5% and 2.7%. Yet, BPD individuals account for approximately 10% of outpatients and 15–25% in inpatient settings. In primary care settings, the prevalence of BPD is four times greater than in the general population care setting, suggesting that individuals with BPD utilize general medical care at a greater frequency (Wu et al., 2022).

### Symptomatology

Central to this disorder is an impaired capacity to form stable interpersonal relationships (American Psychiatric Association, 2013). BPD patients suffer from an extreme fear of separation or rejection, resulting in frantic efforts to avoid the pain of real or imagined abandonment. This causes BPD patients to have ever-mounting psychological stress, resulting in frequent impulsive behaviors, feelings of emptiness, and self-harm (Linehan, 2016). An astounding 69–80% of patients with BPD engage in suicidal behavior (including suicide attempts and life-threatening actions), and up to 10% of patients with BPD die by suicide (Soloff & Chiappetta, 2012).

Symptoms typically begin in early adulthood (usually diagnosed before age 40) and may be triggered by seemingly ordinary events, resulting in substance abuse, eating disorders, self-harm, and suicide (Linehan, 2016). According to Grinker, Werble, and Drye (1968), common denominators of BPD follow four key features:

1. Anger as the main or only affect.
2. Defects in interpersonal relationships.
4. Pervasive depression.

It is common for BPD to be misdiagnosed as other Cluster B disorders, and it is often misdiagnosed as bipolar disorder as one study found that 40% of people who met criteria for BPD but not for bipolar disorder were nevertheless misdiagnosed with Bipolar Type 2 (Ruggero, Zimmerman, Chelminski, & Young, 2010). Approximately 10% of BPD patients have comorbid bipolar I disorder, and another 10% have bipolar II disorder. Likewise, approximately 10% of bipolar I and 20% of bipolar II patients were comorbidly diagnosed with BPD (Zimmerman & Morgan, 2022).

BPD and schizophrenia frequently coexist as well, and this comorbidity has implications for diagnostic classification and treatment. Both share similar experiences of auditory hallucinations, paranoia, childhood trauma dissociation, and traumatic stress (Kingdon et al., 2010). In a study involving 111 patients, 59 met the criteria for schizophrenia, 33 for met the criteria for BPD, and 19 met the criteria for both (Kingdon et al., 2010). Similarities between the two disorders regarding experiences of voices and the perceived location of them were also found. Those with a diagnosis of BPD—including those with schizophrenia comorbidity—reported more childhood trauma, especially emotional abuse.

When investigating dysphoric states in 146 BPD participants, Zanarini et al. (1998) found 25 BPD-specific dysphoric states, all of which fell into one of four clusters:

1. Extreme feelings
2. Destructiveness or self-destructiveness
3. Fragmentation
4. Victimization

In addition, three of the 25 more specific states (feeling betrayed, feeling like hurting myself, and feeling completely out of control) were particularly strongly associated with the BPD participants’ diagnosis compared to other Axis II comparison subjects. Furthermore, the overall mean of the Dysphoric Affect Scale scores correctly distinguished BPD from other personality disorders in 84% of the subjects (Zanarini et al., 1998).

Zanarini et al. (1998) also systematically assessed the disturbed but non-psychotic cognitions of BPD patients and Axis II comparison subjects. BPD participants reported experiencing ideas of reference (a belief or perception that irrelevant, unrelated, or innocuous things in the world are referring to them directly), experiences of depersonalization (being detached from one’s own body) or derealization.
(feeling detached from one’s surroundings), and undue suspiciousness (feeling that one does not know the truth of something or someone) 18%–46% of the time. These cognitions were both reported a significantly higher percentage of the time by BPD participants than they were by Axis II comparison subjects.

BPD’s near-delusional perceptions of abandonment cause unstable interpersonal relationships with loved ones. Under stress, BPD patients have cognitive distortions, causing them to create quasi-psychotic thoughts that result in actions full of rage, anxiety, and profound feelings of helplessness (Zanarini, Frankenburg, Wedig, & Fitzmaurice, 2013). McFarlane (2004) explains that when BPD patients experience anxiety towards an attachment figure, persistent feelings of abandonment are activated. Patients experience fear and anxiety verging on panic, believing they are about to be rejected or abandoned at any moment. They will also become engulfed in the other person and lose their own identity in this primitive event. To prevent being alone, they resort to self-harm such as wrist cutting, suicidal gestures, pulling out hair, etc., in order to elicit rescue by the person to whom they feel attachment. They experience chronic feelings of emptiness as they self-mutilate, and use suicidal threats to manipulate the person they feel is their primary attachment figure.

Arntz and Veen (2001) present evidence suggesting that BPD individuals demonstrate less complexity in empathy and more multidimensional dichotomous thinking, which is perceiving things as either all-good or all-bad. After showing BPD participants short video clips on specific themes addressing specific emotions, spontaneous reactions were coded on two dimensions: 1) affect-tone of ascribed qualities and 2) complexity of evaluations of people. The overall pattern of findings suggests that the BPD group showed poorly differentiated evaluations with a low number of dimensions. BPD participants made more extreme evaluations (multidimensional, dichotomous thinking) and showed a lower affect-tone, reflecting a stronger tendency to view others negatively. They made more extreme evaluations, which is characteristic of multidimensional dichotomous thinking and is a common BPD defense mechanism where BPD individuals fail to see a dichotomy of positive and negative in the self, other, or realistic whole (Arntz & ten Haaf, 2012).

The BPD participants evaluated characters in the films to be more negative and aggressive compared to the normative group, which typically evaluated the characters as being in a depressed state (Arntz & Veen, 2001). This is evidence that the BPD participants have deficits in understanding mental states of others compared to healthy controls, especially regarding negative emotions, where the BPD participants were more inclined to understand the emotion as aggression. This suggests that BPD patients tend to assume that “the world and others are dangerous and malevolent” (Pretzer & Beck, 2004).

Further psychoanalytic studies on empathy utilized projective tests to focus on the accuracy or biases of mental state attributions. In the Rorschach projective test, BPD patients were found to have biases in mental state attribution; they evaluated others as expressing malevolence, yet they had a cognitively advanced ability to perceive others’ threatening intentions (Roepke, Vater, Preißler, Heekeren, & Dziobek, 2013). Additional research biases using projective material from the Thematic Apperception Test further indicated that BPD patients could depict more complex and intentional attributions of other people’s malevolent actions compared to controls. It was also found that their accuracy in inferring mental states (i.e., cognitive empathy) was less consistent (Roepke et al., 2013).

Otto Kernberg, who developed the BPD treatment Transference Focused Psychotherapy (TFP) from a psychoanalytic orientation, describes BPD characteristics as patterns of nonspecific manifestations of ego weakness, shifts towards primary process thinking, specific defensive operations, and pathological internalized object relations (Kernberg, 1985). Kernberg (1976) observed common symptoms, including free-floating anxiety, obsessive-compulsive symptoms, multiple phobias, dissociative reactions, hypochondriacal preoccupations, conversion symptoms, paranoid trends, polymorphous perverse sexuality, and substance abuse. Overall, BPD patients have a pervasive pattern of instability in interpersonal relationships, instability in self-image, marked impulsivity, and chronic feelings of emptiness.

**Etiology**

The diagnosis of BPD is associated with child abuse and neglect more than any other personality disorders, with a range between 30% and 90% in BPD patients (Cattane et al., 2017). Adverse childhood experiences also correlate to BPD symptom severity (Zanarini, 2007). Childhood adverse events are the most significant environmental risk factor of a BPD diagnosis, although they are not a necessary precondition for developing BPD. Childhood maltreatment, including emotional abuse, physical abuse, sexual abuse, and neglect, significantly increases the risk of BPD (Gunderson, Herpertz, Skodol, Torgersen, & Zanarini, 2018). Inconsistent parenting, maternal overinvolvement, aversive parental behaviors, and low parental affection are also associated with BPD development (Schuppert et al., 2012). Psychodynamic models emphasize childhood maltreatment by caretakers and a chaotic, inconsistent home as major contributing factors to the disorder’s etiology (Kernberg, 1976).

Further studies suggest that an interplay between biological (e.g., temperamental) and psychosocial factors (e.g., adverse childhood events) best explains the development of BPD (Schuppert et al., 2012). Psychosocial factors of BPD include two groups. One group is focused on the over-involvement of maternal figures who are conflicted about separating from their child. This behavior leads to the child developing chronic social anxieties around separation and abandonment, harboring BPD diagnosis. The other group focuses on the deficit of maternal figures, which suggests that the unreliable caretaker neglects their child and this increases the prevalence of BPD symptoms. Separating
children from mothers before five years of age is also associated with a predisposition to BPD in adulthood.

The personality profiles of children who have a history of childhood maltreatment are characterized by high neuroticism, low agreeableness, low conscientiousness, and low openness to experience. These characteristics tend to persist and are similar to the personality traits of adults with BPD. Psychodynamic models emphasize childhood trauma and the notion that abuse during childhood is a major contributing factor to the disorder’s etiology (Rogosch & Cicchetti, 2005).

Childhood experiences such as caretaker neglect and chaotic, inconsistent home environments are significant BPD risk factors (Gunderson, 2009). In a ten-year study, 668 personality disorder participants that included BPD individuals were investigated on the etiology of their disorder (Gunderson et al., 2000). It concluded that neglect or abuse while growing up contributed to participants’ diagnosis (Yen et al., 2002). Children are vulnerable and rely on their parents for safety; however, instead of being comforted by their parents’ love, BPD patients often experience neglect, invalidation, and/or abuse, creating a fear of abandonment, unstable interpersonal relationships, and an unstable sense of self (Stepp, Whalen, Pilkonis, Hipwell, & Levine, 2012).

**Ethical problems due to stigma**

The high need for care associated with BPD reflects the struggle BPD individuals face and simultaneously has become part of the stigma itself. Stigma associated with BPD unintentionally influences clinicians to perceive such individuals as overwhelming (Aviram, Brodsky, & Stanley, 2006). It may inadvertently lead clinicians to behave in ways that exacerbate the symptomatic behavior of BPD and contribute to increased turnover, self-injury, and mortality rates in this population (Gallop & Wynn, 1987). Individuals with BPD face considerable difficulties, both in terms of their symptoms and functional status, and in attempting to obtain professional help. A propensity that will likely cause clinicians distress is BPD patients’ increased likelihood of attempting suicide. Up to 10% of patients with BPD die by suicide, and on average, they attempt suicide 3.3 times in their lives (Soloff & Chiappetta, 2012). The stigma of BPD patients being pejoratively labelled “difficult” (Gallop, Lancee, & Garfinkel, 1989, p. 815) affects how clinicians tolerate these individuals’ behaviors, thoughts, and emotions, and frequently leads to clinicians minimizing symptoms and overlooking progress (Gallop et al., 1989).

BPD individuals’ exclusion from appropriate mental health care can be examined using the social construct of marginalization. Pervasive attitudes among clinicians, health care administrators, and policymakers perpetuate the marginalization of BPD within systems of mental health care (Kealy & Ogrodniczuk, 2010). The absence of mental health treatment due to stigma imposed on the BPD population creates ethical implications and must be addressed to fulfill the American Psychological Association’s ethical standards (2017) for patient care. The most important ethical principles to consider are: nonmaleficence, beneficence, respect for autonomy, and justice. BPD patients often are subsequently routed out of care through a variety of direct and indirect means solely because of their diagnosis. Assumptions related to the stigma associated with the disorder is that individuals are manipulative, high-risk, and create an overwhelming amount of distress (Aviram et al., 2006).

**Ethical challenges and stigma associated with MDMA-assisted therapy**

A common confusion is the interchangeable use of the terms ‘ecstasy’ and ‘MDMA’ when they are not the same. Substances classified as ‘ecstasy’ may contain MDMA, but frequently contain other unknown and/or dangerous additional components. In appropriate doses, pure MDMA has been proven relatively safe for medical use. Yet, critics highlight studies that illustrate the dangers of MDMA as a recreational drug, which is not comparing like with like (Sessa, Higbed, & Nett, 2019). While it is well established in rat studies that injected doses of MDMA are neurotoxic, these doses are well above those given in a therapeutic context. Likewise, human trial participants have failed to show evidence of neurotoxic effects of any minuscule amount. Additionally, while some studies have shown an inconsistent pattern of mild memory deficits, these are confounded by substantial polysubstance use among MDMA users (Doblin & Rosenbaum, 1991). In a study of 87 deaths where MDMA was present, only six were found to not also involve other substances, while the two most common causes of death were from heat stroke and anti-diuretic hormone (ADH) mediated hyponatremia, both likely exacerbated by recreational settings with increased physical exertion (Kalant, 2001). Furthermore, in the final phase 3 study of MDMA with 90 participants, no significant adverse events were reported (Mitchell et al., 2023).

Yet MDMA is, to some degree, unpredictable, producing diverse responses in people. MDMA causes neurotransmitter activation across the main neural pathways, including serotonin, dopamine, and noradrenaline, resulting in substantial fluctuations in mood and emotions depending on the memories that emerge for the patient (Vizeli & Liechti, 2017).

Extended use of MDMA could cause serotonergic dysfunction, as MDMA triggers an increase in serotonin upon administration. This raises concerns surrounding addiction; however, MDMA is described as a “self-limiting” drug (Hendy, 2021). After prolonged use, the positive effects decrease with increased use and adverse effects also increase, which reduces the likelihood of addiction. Because MDMA is a self-limiting drug, dependency rates are low, at 1% of users when compared to other illicit drugs (Yazar-Klosinski & Mitnheofer, 2017).

Current research in the field yields limited data concerning the safety and tolerability of clinical trials, psychopharmacology, and psychedelics with BPD individuals. Therefore, including a BPD individual as a participant to receive MDMA-AT may be premature at this time. However, an ethical initial step would be to explore perspectives...
from four treatment providers: two mental health clinicians who focus their practice on treating BPD patients and another two mental health clinicians who focus their treatment on MDMA-AT and who also received MDMA-AT treatment as a patient. The perspectives of all four providers were used to capture the perspectives on BPD treatment and the potential impact, safety, and tolerability of MDMA-AT on the BPD population.

METHODS

The study’s overall research question was: “What is the phenomenology of MDMA-AT for treating patients with BPD?” The general questions explored were:

1. What is each psychologist’s experience of treating BPD patients?
2. What is the experience of two psychologists whose treatment modality is MDMA-AT?
3. What is the experience of two psychologists who have received treatment in MDMA-AT?
4. What is the perception of efficacy in current treatment modalities for BPD patients?
5. What does the process of MDMA-AT look like over time?
6. How does the experience of two MDMA-AT psychologists inform treatment for BPD using MDMA-AT?

Interviewing two BPD-specialized treatment providers and two MDMA-AT-specialized clinicians was one way to examine the phenomenology of MDMA-AT with BPD individuals in a thoughtful manner. By capturing four clinicians’ perspectives of MDMA-AT and BPD, we increased our understanding of underlying therapeutic mechanisms and processes and examined the role of pharmacological factors in these treatment modalities, optimizing treatment context, and leading to improved clinical responses and patient recovery.

The study team included a clinical psychology doctoral student and consultation from faculty members with academic and clinical backgrounds. The study PI, Ann Inouye, met regularly with the study team to discuss the study design, data collection, and data analysis. Participants were involved in various stages of the study (design, data collection, data analysis, and interpretation) to ensure that their emic perspectives accurately reflected the interpretation of the data.

This study hoped to share experiences on what potential impact MDMA-AT has upon the BPD population, as perceived by clinicians, and how the current treatment modalities compare. The participants were drawn from two primary groups, DBT and MDMA-AT clinics. One group was contacted by experts in DBT via consultation. The other group was contacted by experts in MDMA-AT via consultation with MAPS-affiliated clinicians. This qualitative research aimed to focus on a difference in conceptualization and potentially identify different mechanisms of change and interventions from current theories of BPD and its treatment. The research is therefore designed to support future generations of more provisional models and potential grounded theories for working with BPD patients.

This study attempts to describe clinicians’ experiences and perceptions of working with individuals diagnosed with BPD, using the perspective of two clinicians who specialize in treating patients diagnosed with BPD and two clinicians who specialize in treating patients using MDMA-AT case study research. The results were presented as a discussion of themes and patterns. At this stage in the research, the central concept being studied was defined as clinicians’ perspectives on using MDMA-AT as a potential treatment for patients with BPD.

RESULTS

This qualitative study addresses the overall research question: “What is the phenomenology of MDMA-AT for treating patients with BPD?” The analysis of this research question yields four core domains. The results are organized first by core domain, second by core idea, and lastly by category. Data is grouped first by core domain. The core ideas attempt to categorize smaller nuances of information within the domains. The categories highlight unique components of participant experience within each domain. The frequency at which these categories occur in the sample was taken into account. In this study of four participants and eight interviews, categories that occur between one and five times are considered rare, between 6 and 10 times are considered moderate, and between 11 and 100 times are considered significant.

DBT/MDMA-AT OVERLAP

This study’s results emphasize overlapping codes that create narratives to make sense of the phenomenology of MDMA-AT for treatment of BPD individuals. The codes generated unique perspectives of the participants that revealed their emic experiences. These were then organized by the PI into a chronological narrative, which includes an overlap of both treatments.

Conceptualization and etiology

Both the DBT and MDMA-AT clinicians shared aspects of BPD conceptualization and etiology. They conceptualized BPD individuals as emotionally dysregulated; exhibiting externalizing behaviors; and having a higher intensity/sensitivity of emotions, a fragmented sense of self (incoherence), distress intolerance, and interpersonal ineffectiveness. Direct interview quotes are used to highlight and personalize the data. The quotes have been edited for grammatical clarity, and all identifying information has been omitted to protect participants’ identities.
Core of BPD issues stem from emotional dysregulation:
From a DBT perspective, they would say that the core issue is problems with emotion dysregulation. That it is actually the core, and every behavior you see, it's about solving that dysregulation.

-DBT clinician

Trauma stemming from an emotionally invalidating environment:
And that person who is a little more vulnerable, that little kid was put in an environment—which in DBT we call the invalidating environment—and it's an environment that invalidated their experiences chronically over and over again.

-DBT clinician

BPD/PD rooted in attachment traumatic events:
A lot of early childhood is about calming the alarm system. And that's what Eriksson's trust versus mistrust is. You know, have I been responded to in a way that makes me feel calmer and that this life has a rhythm and a reliability that I can count on? Or is it chaotic and I never know what's going to happen? And so, I never know how to trust my caregivers; trust my own, you know, internal experiences, and signals.

-MDMA-AT clinician

Different areas of conceptualization and etiology were also described. DBT clinicians conceptualized the BPD individual as struggling with trauma stemming from traumatic emotional invalidation involving the inability to understand and validate their own emotions, lack of mentalization skills, high amounts of shame and guilt, chronic sense of emptiness, low sense of self-worth, the inability to assert themselves, lack of self-validation, and a negative social-cognitive bias. They described the etiology of a mixture of a hyper-emotional individual in a chronically emotionally invalidating environment, which results in traumatic emotional invalidation.

Emotionally sensitive individual with a non-emotionally sensitive caretaker:
There are some people who are just born more emotionally sensitive than the average human being. And then they are raised in an invalidating environment, which people will often say [is] abusive, but it doesn't have to be abusive. Just invalidating or neglecting.

-DBT clinician

Chronic invalidation effects on self-identity:
Chronic invalidation really damages their ability to know what they want.

-DBT clinician

Avoidance of self-awareness, self-understanding, and self-judgment resulting in emotional dysregulation:
They avoid the normal uncomfortable conversations that the average person would have because they've been invalidated. So, they don't trust their own judgment, they don't trust their emotions, but then their needs aren't getting met. So, beyond the unhappiness the negative emotions begin to build, and then they explode about something usually unrelated.

-DBT clinician

MDMA-AT clinicians differ in how they express a subconscious/unconscious mind that causes a mind-body disconnection resulting in various somatic experiences. They shared that BPD etiology stems from attachment and/or developmental trauma.

Trauma from formative years resulting in a shattered self:
In severe injuries to the self, to the formation of the self, that then end up being, you know, various forms of personality disorder. And the medicine actually opens those up. It opens those compromises up, and opens up, you know, [pause] there are regressed aspects of people with developmental trauma that have not had attention. And that then needs attention to, to catch up developmentally. In attachment trauma, that's particularly under the age of three. There's not a coherent self that the trauma happens to. So, it's really the self is a traumatized entity. It's a shattered self.

-MDMA-AT clinician

Strengths and limitations of DBT and MDMA-AT
DBT and MDMA-AT treatment are very different and resolve different BPD symptoms. Clinicians expressed concern that the patient must be able to regulate, understand their emotions, and not respond in a hyper-reactive way to trauma processing in order to ensure that MDMA-AT will be safely executed. To ensure safety and efficacy for the patient, suicidality and self-harming behaviors were concerns that all therapists highlighted. MDMA-AT does not attend to BPD's high-risk externalizing behaviors, distorted sense of reality, lack of self-coherence, severe distress intolerance, and severe emotional dysregulation that DBT is able to address.

Concern over MDMA-AT treatment without DBT skills related to understanding emotions and emotional regulation:
It's not going to teach you how DBT teaches them skills. There's a whole section in DBT where you just teach them the name of emotions and explain what emotions are. So, if they don't even know what an emotion is, or what emotion they're feeling, they won't be able to process it and come up with solutions. That's like asking them to process in French, right? They only speak English, but we're going to speak French in the session. I just don't think they could do it.

-DBT clinician

Avoidance of negative emotions via self-harm; DBT teaches skills to manage emotions:
Well, a lot of times they're escaping painful experiences by doing something else. For example, they might have had a situation where they were rejected or perceived rejection from a lot of pain, but rather than sitting with that pain which is sort of the natural emotion that goes with that experience, it jumps to something like cutting to cut off that pain, right? Or jumps to something like rage and blaming someone else, and getting into fights, which is a, you know, a secondary
expression that's trying to regulate that initial expression or that initial experience. But it's escape, and it never really lets them deal with that actual emotion and know that actually that emotion isn't going to kill them, they can handle it, that actually there are skills and strategies to manage it.

-DBT clinician

MDMA-AT as potentially helpful during stage 2 (trauma processing) and able to practice stage 1 skills effectively:

I mean at my first thought is that if a client was ready to work on trauma. So, that is often stage two work in DBT, meaning they are not actively engaging in behaviors that could lead to them dying, they are committed to the treatment, they're committed fully. We’re not dealing with any behaviors that we call "treatment interfering behaviors," behaviors that tend to really get in the way of treatment working. If those things are in order, I think it could be tremendously useful for trauma work.

-DBT clinician

Able to maintain boundaries:

Being able to set and maintain and hold those boundaries. If I’m holding the boundary but the patient doesn’t want that boundary to be held, then to know how to deal with what may be perceived as my rejection. And to manage what’s going on inside, like they don’t need to have to cross my boundaries in order to deal with this. For the ability to really be respectful and mindful of boundaries.

-MDMA-AT clinician

Self-regulation:

Knowing how to breathe, how to self-regulate, knowing how to have an observing mind as opposed to a reactive mind, right?

-MDMA-AT clinician

Clinicians also described persistent BPD symptoms remaining following DBT treatment that could be treated through MDMA-AT: a chronic sense of emptiness, emotions derived from guilt and shame, mind-body detachment, healing subconscious trauma entities, somatic distress, internal exploration to enhance self-identity, interpersonal relationships (closeness), and their relationship with the world that promotes spiritual fulfillment.

Lingering emptiness not resolved through DBT:

It's this agony, this loneliness, this feeling of nothing is going to fix it. And so other theories are that you get people moving towards your life's worth living goal, and they get these goals that they want, and then they're less likely to feel empty. But I would say that DBT indirectly deals with it, but doesn't do a great job of directly doing it.

-BPD clinician

Problematic behaviors stemming from guilt and shame which DBT treatment addresses, but not completely:

If we had a plot like how much emotion they feel at the beginning and how often and how intense, guilt and shame would be the tallest bar for sure. At the end of therapy, I would say it's probably in the mid-range...And that is really what drives a lot of their problematic behaviors, the guilt and shame. Because they feel shame for asking for things, or they feel guilt for asking for things.

-BPD clinician

Resolving coherence:

MDMA seems to restore coherence of the self miraculously, compared to you know, other trauma treatments that I've employed or been witness to in complex trauma or developmental trauma.

-MDMA-AT clinician

Catharsis in MDMA-AT:

I would say 90% of the time, one of the first things out of their mouth would be, I've never felt so at peace in my whole life. I've never felt so comfortable in my own skin. I've never seen how hard I've been on myself. And you know, having a bit of a catharsis during that time. There was this melting away of the defenses of anger, and of blame and shame.

-MDMA-AT clinician

Systemic considerations

Clinicians also expressed that it is important for BPD individuals to have a supportive network that creates an environment for the individual to return to that is conducive to treatment goals. They expressed that treatment (either MDMA-AT or DBT) has a washout period if the individual returns to a trauma-inducing environment that is not conducive to their treatment goals.

Systemic treatment barriers:

Yes, families are trying really hard to teach a patient to self-validate or to have self-compassion. All the while, everyone is calling [them] lazy, or saying all these awful things to them, and it's really hard. Or [they are] trying to stay away from substances, but all the while everybody around them is engaging in it. Or financial, you know, like, they just can't take the time to do therapy, or they can't afford therapy, or they have too much stuff. Like I have, you know, some of my clients who have more like the unrelenting crisis kind of presentation; it's like they have one crisis after the other, after the other, and a lot of it is in their life, like, you know, housing stuff, and sometimes it's just like wow, like there's a limit to what skills and treatment can do for that; like, these are big life circumstances.

-DBT clinician

After-care is timely and critical:

The structures to provide time and care. You know, it is basically like taking someone under your complete care like you would a small child to help them recover.

-MDMA-AT clinician

Modification for the MDMA-AT treatment manual would include a support system:

I think just making sure that the support system for the patient is really well informed. That's one kind of modification that I would make is that I would definitely have the support system
for that patient on board with the very big picture. So, you know, both pre-medicine visits and [a] post-medicine visit.

-MDMA-AT clinician

DISCUSSION

This study intended to explore the phenomenology of MDMA-AT in treating patients with BPD. To date, there is no literature on MDMA-AT or any psychedelic assisted therapy for BPD treatment. The main themes identified by the participants were an overlap in conceptualization, treatment outcomes, and etiology.

The findings from eight interviews with four mental health clinicians resulted in themes regarding individuals diagnosed with BPD who experienced great difficulties in emotion dysregulation stemming from traumatic emotional invalidation; unstable relationship patterns; feelings of emptiness, shame, and guilt; distress tolerance; mind-body connection; and a shattered sense of self. The theme of these similarities and differences highlights how DBT and MDMA-AT clinicians conceptualize and experience BPD patients within therapy. By exploring these therapeutic perspectives and interactions, it becomes possible to enhance the recovery processes for individuals with BPD.

Clinical recovery in DBT focuses on helping people with BPD with self and interpersonal safety, mindfulness, emotional regulation in social contexts, and building toward a life worth living. Clinical recovery in MDMA-AT is finding peace, fulfillment, and purpose in life while applying mind-body practices. These therapeutic traditions mirror the subjective experiences of BPD individuals, which is a struggle toward connectedness, as discussed interpersonally (DBT clinicians) and within the self through mind-body connections (MDMA-AT clinicians). It emphasizes that individuals diagnosed with BPD often cope with severe trauma stemming from emotional invalidation and/or attachment trauma.

LIMITATIONS OF THE STUDY

Although this exploratory study provided rich data, the study builds on a relatively homogenous and small group of participants. Results should consider the context of a small study size of four participants, all of whom have had at least ten years of mental health experience. It would be beneficial to increase the study size to consider an emic understanding of MDMA-AT and BPD patients within therapy. By exploring these therapeutic perspectives and interactions, it becomes possible to enhance the recovery processes for individuals with BPD.

Clinical recovery in DBT focuses on helping people with BPD with self and interpersonal safety, mindfulness, emotional regulation in social contexts, and building toward a life worth living. Clinical recovery in MDMA-AT is finding peace, fulfillment, and purpose in life while applying mind-body practices. These therapeutic traditions mirror the subjective experiences of BPD individuals, which is a struggle toward connectedness, as discussed interpersonally (DBT clinicians) and within the self through mind-body connections (MDMA-AT clinicians). It emphasizes that individuals diagnosed with BPD often cope with severe trauma stemming from emotional invalidation and/or attachment trauma.

LIMITATIONS OF THE STUDY

Although this exploratory study provided rich data, the study builds on a relatively homogenous and small group of participants. Results should consider the context of a small study size of four participants, all of whom have had at least ten years of mental health experience. It would be beneficial to increase the study size and include a more diverse population in further research to increase generalizability. More studies with larger and more heterogeneous patient samples are needed to appraise the real impact and ecological validity of the phenomenology of MDMA-AT for the treatment of individuals diagnosed with BPD.

Participants were self-selected, meaning that they may not represent the larger population in seeking out these novel treatment modalities for research with a vulnerable population. The stigma and lack of treatment surrounding BPD can create a bias to push treatment forward without carefully examining the potential costs, such as safety and tolerability, that can occur. All participants in the present study were mental health clinicians providing potential hypotheses on the impact of MDMA-AT for working with BPD individuals. There is a need for more knowledge on lived experiences to address this, while also considering safety issues that may arise with a not-yet-FDA-approved treatment with a vulnerable population.

It is also vital to understand when, by whom, and how data collection and analysis were performed. Variations in the timing of interviews varied considerably. Two interviews were conducted within a one-month timeframe and the rest over a two-month timeframe. Also, within studies, participants did not always have enough time or distance to gain a broader perspective on their experiences. As some participants suggested, insights were not always gained during the one-hour interviews themselves, but rather occurred between interviews or following the interview sessions. Lastly, only having eight interviews limited the depth of the research. It would be beneficial for future studies to discuss an appropriate interview length, appropriate length of time between interviews, and an appropriate number of interviews.

CONCLUSION

There are no studies regarding the safety and tolerability of MDMA-AT for BPD individuals, as past MDMA-AT trials have excluded BPD individuals due to their high-risk behavior (Palhano-Fontes et al., 2019). This study explored four clinicians’ perspectives on BPD etiology and conceptualization. Patients with BPD also may benefit from increased exploration into new or current potential treatments. As more psychologists, health professionals, and researchers gain an emic understanding of MDMA-AT and the BPD population, they may be more inclined to focus on exploring and creating more effective treatment techniques.

This study reinforced the need for further research on MDMA-AT treatment for BPD individuals. Both MDMA-AT and BPD can be sensitive topics, but it is vital to explore them with vigilance. Such exploration demands ethical reflection, a consideration of relationships and suffering, and discussion surrounding treatment limitations. Interviewing two DBT clinicians and two MDMA-AT clinicians was one way to examine the phenomenology BPD individuals in a thoughtful manner.

Conflicts of Interest and source of funding: No competing interests. No funding agency had a role in study design or conduct; data collection, management, analysis, or interpretation; manuscript preparation, review, or approval; and decision to submit the manuscript for publication.

Disclaimer: The views expressed herein are those of the authors and do not reflect the official policy or position of Alpert Medical School of Brown University, Chaminade University of Honolulu Hawaii School of Professional Psychology, Yale School of Medicine, Walter Reed National Military Medical Center, Uniformed Services University, Department of Defense, or the U.S. Government.
ACKNOWLEDGEMENTS

We thank committee member, Vilmarie Baez, PsyD, for her thoughtful comments and support. Thank you to the four study participants, each of whom was an honor to learn from. Thank you for your trust, openness, and profound perspectives.

REFERENCES


Arntz, A., & ten Haaf, J. (2012). Social cognition in borderline perspectives. From. Thank you for your trust, openness, and profound study participants, each of whom was an honor to learn from. We thank committee member, Vilmarie Baez, PsyD. for her contribution.


