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# DIFFICULTIES IN TREATMENT OF BORDERLINE PERSONALITY DISORDER (BPD) – A REVIEW OF VARIOUS FORMS OF THERAPY AND PHARMACOLOGICAL METHODS

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## ABSTRACT

**Objective:** The primary objective of this comprehensive review is to systematically evaluate and synthesize the latest scientific knowledge regarding the pathophysiology, diagnostic complexities, and the clinical effectiveness of various therapeutic interventions for borderline personality disorder (BPD).

**Methods:** A narrative literature review methodology was employed, involving a rigorous search of leading scientific databases, including PubMed, Scopus, Web of Science, and Google Scholar. The selection process prioritized randomized clinical trials, extensive meta-analyses, and current treatment guidelines, with a particular emphasis on peer-reviewed publications from the last decade to ensure the utmost relevance.

**Findings:** A review of the literature indicates that integrated evidence-based psychotherapy, particularly dialectical behavior therapy (DBT) and mentalization-based treatment (MBT), remains the gold standard for treating BPD. Furthermore, intensive short-term forms (5–6 months) have been shown to be more clinically effective than traditional long-term programs. Pharmacotherapy plays exclusively a supportive role and is utilized for the temporary relief of acute symptoms. Second-generation antipsychotics (SGAs) are highly effective in mitigating suicidal behavior in severe cases of BPD. New biological interventions, such as intravenous ketamine infusions or the modulation of the newly studied gut-brain axis, represent highly promising areas of future research.

**Conclusions:** Effective treatment of BPD requires a highly personalized, holistic approach, with psychotherapy serving as its undeniable foundation. Pharmacotherapy must be introduced with extreme caution, placing particular emphasis on the absolute avoidance of polypharmacy.

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## KEYWORDS

Borderline Personality Disorder, Psychotherapy, Pharmacotherapy, MBT, DBT, Gut-Brain Axis

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## Introduction

Behavioral disorders are currently the second most common group of mental disorders among young people (Polanczyk et al., 2015). Borderline personality disorder (BPD) is a heterogeneous clinical condition strongly associated with various dimensions of an individual's functioning. It is characterized by a multitude of symptoms that significantly impair daily functioning and are associated with a high risk of suicide. The core symptoms of BPD primarily include profound difficulties in the area of emotional regulation, encompassing inappropriate outbursts of anger, irritability, guilt, episodic dysphoria, and chronic feelings of emptiness. Affective instability manifests itself in sudden mood swings, which can occur repeatedly throughout the day. In addition, high levels of impulsivity predispose patients to destructive self-harming behaviors, including self-mutilation and suicide attempts, and contribute to substance abuse as well as verbal and physical aggression (American Psychiatric Association, 2013).

The term borderline personality disorder was introduced into the scientific literature in the mid-20th century by Robert Knight (1953), who utilized it to describe patients exhibiting symptoms that fell between neurotic and psychotic disorders. Currently, it is estimated that the prevalence of BPD in the general adult population ranges from 0.7% to 3.5%, while among patients receiving psychiatric treatment, this rate rises significantly to 9–18% (Doering, 2019). Epidemiological studies also indicate that BPD occurs in approximately 3% of the general adolescent population. However, this percentage increases dramatically in clinical groups affecting 11% of adolescents receiving outpatient psychiatric care and as many as 78% of adolescents reporting to emergency departments due to suicidal behavior and ideation (Guilé et al., 2018).

## Methodology

This article is a narrative review aimed at synthesizing current knowledge regarding the difficulties and innovations in the treatment of borderline personality disorder. To ensure high scientific and substantive quality and minimize the risk of systematic bias, the literature collection process was based on rigorous search criteria within leading medical and psychological databases. The literature review was conducted using the following electronic databases: PubMed/MEDLINE, Scopus, Web of Science, and Google Scholar. The search process covered articles published from the date of creation of the databases until the beginning of 2026. However, in order to ensure that the pharmacological and psychotherapeutic data presented were as up-to-date as possible, particular emphasis was placed on publications from the last 10 years (2016–2026). Older literature (e.g., Knight's works from the 1950s or Linehan's fundamental textbooks) was included in the review solely in a historical and definitional context.

Keyword combinations were systematically applied during the search process. The main search strings included a combination of the term "borderline personality disorder" (or the abbreviation "BPD") with terms describing forms of treatment ("treatment", "psychotherapy", "pharmacotherapy", "management"). These initial results were then refined by adding keywords referring to specific therapeutic interventions ("mentalization-based treatment", "MBT", "dialectical behavior therapy", "DBT", "iconic therapy") and concepts related to the biological basis of the disorder ("pathophysiology", "neurobiology", "gut-brain axis"). The review included articles in English and Polish that met rigorous scientific criteria: peer-reviewed original works (including randomized clinical trials – RCTs), broad meta-analyses, systematic reviews, and current guidelines from recognized psychiatric societies. Case reports, articles from non-peer-reviewed journals, and publications not directly related to therapeutic interventions or the pathophysiology of BPD were strictly excluded from the analysis. The sources selected in this manner formed the robust foundation for the construction of the individual subsections of this work.

## Results

### *Diagnostic criteria and clinical presentation of BPD*

Understanding the pathophysiology and selecting appropriate therapeutic strategies for borderline personality disorder requires, first and foremost, a precise definition of its clinical presentation. BPD is a highly polymorphic entity, which means that it can manifest itself in completely different ways across different patients. According to the American Psychiatric Association's classification (DSM-5), the diagnosis of borderline personality disorder is based on the presence of a persistent pattern of instability in interpersonal relationships, self-image, and affect, accompanied by marked impulsivity. This pattern characteristically appears in early adulthood and manifests itself across various situational contexts.

For a definitive diagnosis, at least five of the nine diagnostic criteria must be met (American Psychiatric Association, 2013). These include desperate efforts to avoid real or imagined rejection. Patients exhibit an extreme fear of abandonment, which often triggers inappropriate emotional reactions and dramatic attempts to keep loved ones close. Another core criterion is the presence of unstable and intense interpersonal relationships characterized by fluctuations between extremes: from idealization, which involves perceiving someone as a savior, to complete devaluation, where the same individual is deemed cruel and worthless. In addition, individuals with BPD exhibit marked identity disturbances, manifested by a persistently unstable self-image that can result in sudden shifts in life goals, core values, or career orientation. Impulsivity in at least two potentially self-destructive areas is also characteristic, encompassing substance abuse, risky sexual behavior, dangerous driving, compulsive shopping, or binge eating.

The clinical picture is further complicated by recurrent suicidal behavior, gestures, or threats, alongside non-suicidal self-injury (NSSI). These actions often constitute a maladaptive mechanism for coping with overwhelming psychological tension or serve as a specific way of communicating profound suffering. Patients additionally exhibit affective instability caused by marked mood reactivity, including episodic dysphoria, irritability, or anxiety, which usually lasts from several hours to several days. Individuals with BPD also struggle with a chronic sense of emptiness, often described as a physical feeling of lack or existential boredom, which they attempt to suppress through impulsive actions. This is frequently accompanied by inappropriate, intense anger and difficulty controlling it, manifesting in severe outbursts of rage or physical altercations. In situations of extreme tension and stress, patients may also experience transient paranoid thoughts or heightened dissociative symptoms (such as depersonalization or derealization), leading to a loss of contact with reality and increased suspicion regarding the intentions of others.

It is also vital to note that in the latest, eleventh revision of the International Classification of Diseases (ICD-11), published by the World Health Organization (WHO), the categorical division into specific types of personality disorders has been abandoned in favor of a dimensional model. Instead of diagnosing a specific type of BPD, the ICD-11 classification allows for the diagnosis of a general personality disorder (mild, moderate, or severe) utilizing an additional specifier called the "borderline pattern". This approach more accurately reflects the fluidity of symptoms and the highly individualized nature of this condition (World Health Organization, 2019/2022).

#### *Pathophysiology*

The pathogenesis and pathophysiology of borderline personality disorder (BPD) are based on complex interactions between genetic, neurobiological, and environmental factors. Dysfunctions within the limbic system and prefrontal cortex are believed to play a particular role in the neurobiology of this disorder. Neuroimaging studies, including meta-analyses utilizing magnetic resonance imaging, demonstrate significant structural and functional alterations within these structures in patients with BPD (Ruocco et al., 2012; Schulze et al., 2016).

The amygdala in individuals with BPD is hyperactive—it reacts to stimuli (especially those carrying negative emotional connotations, such as facial expressions of anger or signals of rejection) much faster and more intensely than in the healthy population. This phenomenon underlies the severe emotional instability and heightened anxiety characteristic of this disorder. Conversely, the prefrontal cortex exhibits reduced activity (hypofrontality), leading to impaired descending inhibition mechanisms. As a result, the cortex is unable to adequately modulate and extinguish the excessive arousal generated by the amygdala. Clinically, this manifests as extreme outbursts of anger and pronounced deficits in impulse control (Schulze et al., 2016).

Disorders within neurotransmitter systems represent another crucial element of the pathophysiology of BPD. Reduced activity of the serotonergic system in specific regions of the brain is strongly correlated with the occurrence of impulsive behavior, aggression, and suicidal tendencies (Gunderson et al., 2018). Another key mechanism is the dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis, which governs the body's physiological response to stress. Many patients with BPD exhibit profound disturbances in the functioning of this axis, resulting in abnormal cortisol secretion patterns. These changes are theorized to most frequently stem from early childhood trauma or chronic stress experienced during critical developmental periods (Crowell et al., 2009).

In recent years, an increasing amount of attention has been directed toward the role of the gut-brain axis and the gut microbiome in the context of psychiatric disorders. This axis represents a bidirectional communication pathway between the central nervous system and the gastrointestinal tract, meticulously integrating nervous (predominantly via the vagus nerve), endocrine, and immune signals. Studies indicate that patients with BPD demonstrate alterations in the composition of the intestinal bacterial flora (dysbiosis), which promotes increased intestinal barrier permeability. This permeability allows bacterial metabolites to penetrate the bloodstream, inducing chronic inflammation (neuroinflammation). Such systemic inflammation directly impairs the optimal functioning of the amygdala and prefrontal cortex, heavily exacerbating emotional dysregulation (Anderson, 2020). Furthermore, the microbiome is actively involved in the synthesis of key neurotransmitters. The observed reduction in the abundance of short-chain fatty acid (SCFA)-producing bacterial strains in patients with BPD may further impair serotonergic pathways and intensify psychopathological symptoms (Pless et al., 2022).

Regardless of neurobiological and environmental variables, there is a distinct genetic component in the pathogenesis of BPD. It is estimated that the heritability of this disorder ranges from 40% to 60%. However, it is essential to emphasize that it is not the disorder itself that is directly inherited, but rather specific temperamental traits, such as emotional hypersensitivity and impulsivity. When these traits develop within an unfavorable, invalidating, or traumatic environment, they can culminate in the development of full-blown borderline personality disorder (Amad et al., 2014; Crowell et al., 2009).

#### *Treatment approaches and psychotherapy*

For many decades, borderline personality disorder was widely considered by the psychiatric community to be a condition with an extremely poor prognosis. Patients carrying this diagnosis frequently faced heavy stigmatization and a profound lack of appropriate, targeted therapeutic tools. Fortunately, the contemporary paradigm for treating BPD has undergone a radical transformation. It is now universally recognized that in order to effectively counteract the serious consequences of this disorder, including its high suicide mortality rate, it is imperative to implement a comprehensive and long-term treatment plan. According to the current clinical guidelines issued by international psychiatric societies, the absolute treatment of choice involves

integrated methods based strictly on various forms of evidence-based psychotherapy. This directive stems from the fact that psychological interventions have proven to be the most effective in modifying rigid behavior patterns and yielding lasting therapeutic effects. Pharmacological treatment, on the other hand, although sometimes necessary in acute crises, plays strictly a supportive and symptomatic role in managing this complex disorder (Bateman et al., 2015).

The most thoroughly researched and effective forms of psychotherapy for BPD, which have been the subject of numerous rigorous randomized clinical trials, include dialectical behavior therapy (DBT), mentalization-based treatment (MBT), and cognitive analytic therapy (CAT). In extensive meta-analyses, both DBT and MBT have consistently demonstrated the highest proven clinical effectiveness, most objectively measured by a significant decrease in psychiatric hospitalizations and self-harming behaviors (Cristea et al., 2017).

Mentalization-based treatment (MBT) was initially developed in the 1990s by Anthony Bateman and Peter Fonagy as a targeted response to the acute needs of patients with BPD being treated in day-care units. Over time, it has evolved into a comprehensive psychological approach that is also utilized in treating other conditions, such as antisocial personality disorder (ASPD). The foundation of this approach relies on the concept of 'mentalization', which can be most simply described as the cognitive ability to reflect on mental states-both one's own and those of other individuals. This encompasses interpreting behaviors exclusively in terms of hidden thoughts, feelings, desires, and underlying intentions. Mentalization is a fundamental human skill that dictates proper social interactions. In patients with BPD, especially during situations of strong emotional arousal and psychosocial stress, the ability to mentalize becomes severely impaired. It is precisely these deficits, deeply combined with attachment style disorders, that serve as the primary catalyst for impulsive, aggressive behaviors and profound crises in interpersonal relationships (Bateman & Fonagy, 2016). MBT focuses heavily on rebuilding this ability, thus allowing patients to gain insight into how their volatile emotions dictate their behavior and how they are ultimately perceived by those around them.

The current scientific literature provides convincing evidence regarding the effectiveness of this method, particularly in cohorts of adolescents and young adults. Studies conducted on a group of 80 adolescents convincingly demonstrated that MBT is significantly more effective in reducing self-harming behaviors and depressive symptoms when directly compared to treatment as usual (TAU) (Rossouw & Fonagy, 2012). An extremely interesting and highly innovative direction in the continued development of MBT involves the inclusion of entire family systems within the therapeutic process. Recent studies have shown that the active participation of parents of children diagnosed with BPD yields highly positive clinical results. Patients gained an essential sense of understanding and validation from their loved ones, while parents were granted the opportunity to explore and comprehend their children's highly complex emotional states. This highlights the vital, undeniable role of family support in the recovery process and provides a solid basis for further research into systemic MBT interventions (Hauschild et al., 2023).

#### *Dialectical behavior therapy (DBT) and the duration of treatment*

Dialectical behavior therapy, meticulously developed by Marsha Linehan, is an intensive therapeutic program that uniquely combines elements of classical cognitive-behavioral therapy with Eastern philosophy, particularly the practice of mindfulness. It was explicitly designed for chronically suicidal patients. In both MBT and DBT, one of the primary clinical challenges remains the exceptionally time-consuming and intensive nature of the treatment protocols. Classic variants of these therapies strictly require participation in numerous sessions, encompassing both individual psychotherapy and group skills training, for an extended period ranging from one year to several years. Given the severe mood instability, overall lack of life stability, and profound difficulties in maintaining motivation characteristic of BPD, the extended duration of treatment often becomes a major obstacle, frequently leading to the premature abandonment of therapy.

In direct response to this high dropout rate, clinical researchers began to analyze the effectiveness of shortened therapeutic formats. The results of recent randomized clinical trials have yielded surprising, paradigm-shifting conclusions. In a landmark study evaluating the effectiveness of MBT, Juul (2023) designed a rigorous clinical trial involving a substantial cohort of 166 adult patients diagnosed with BPD. The researchers systematically compared the outcomes of a shortened, five-month MBT program with the traditional fourteen-month long-term therapy. To ensure high methodological quality, the primary outcomes were measured using standardized psychiatric severity indices alongside comprehensive assessments of general psychological distress at multiple follow-up intervals. The results clearly indicated that short-term therapy was not only non-inferior but overall more clinically effective in facilitating rapid symptom remission. Moreover, the longitudinal data revealed that long-term MBT was unexpectedly associated with a higher rate

of adverse clinical events, including significantly more frequent psychiatric hospitalizations. Researchers hypothesize that this extended duration may inadvertently foster the patient's excessive psychological dependence on the primary therapist and the protective institutional structure, thereby diminishing their self-efficacy in independently managing acute stressors.

Similar profound conclusions can be drawn from extensive empirical analyses of DBT. In a non-inferiority randomized clinical trial comparing six-month and twelve-month DBT cycles, (McMain et al., 2022) meticulously evaluated an extensive sample of patients exhibiting chronic suicidal ideation and frequent self-harming behaviors. The main differentiating criterion evaluated was the precise number of self-harm acts and the rate of psychiatric emergency department visits. Participants randomly assigned to the condensed six-month program demonstrated a noticeably faster trajectory of reduction in core BPD symptoms. Furthermore, these individuals attempted self-harm far less frequently during the immediate post-treatment observation period. Consequently, a shorter, more concentrated duration of intensive therapy appears to catalyze a heightened sense of urgency. This psychological mechanism effectively motivates patients to work more proactively and encourages them to independently apply newly acquired emotional regulation skills much more rapidly in their daily lives.

Advances in clinical psychology also drive the continual search for new, unconventional methods of support. Great hopes are currently being placed in the developing framework of Iconic therapy (IT). This visual approach is based on the assumption that patients with BPD experience profound cognitive difficulty processing verbal and abstract information during states of high physiological stress. IT utilizes visualizations, images, and specific icons to teach patients how to effectively recognize detrimental patterns of behavior and emotions in themselves and others. Although this is a relatively nascent method, preliminary pilot studies in adolescent populations suggest that it may be more effective in preventing immediate suicide attempts during acute crisis situations than traditional psychological interventions. Nonetheless, it unquestionably requires further, large-scale, and long-term research to definitively validate these initial findings (Hurtado-Santiago et al., 2022).

#### *Schema therapy (ST)*

Schema therapy, developed by Jeffrey Young, represents another highly effective, evidence-based psychotherapeutic approach for patients with BPD. Originally designed to treat chronic characterological aspects of disorders that did not respond adequately to standard cognitive-behavioral therapy, ST seamlessly integrates elements of CBT, psychoanalysis, attachment theory, and Gestalt therapy. The core theoretical concept of ST revolves around early maladaptive schemas, which are deeply ingrained, self-defeating patterns of perception and behavior formed during childhood in response to unmet core emotional needs. In the context of BPD, patients frequently and abruptly switch between extreme emotional states, clinically referred to as "schema modes." These typically include the vulnerable or angry child modes, the punitive or demanding parent modes, and the detached protector mode, which serves as a dysfunctional coping mechanism. The primary therapeutic goal of ST is to actively help the patient strengthen their "Healthy Adult" mode. This enables the individual to appropriately nurture the vulnerable child modes, safely process deeply rooted childhood trauma, and firmly set limits on the punitive internal voices. Extensive randomized controlled trials have demonstrated that schema therapy not only significantly reduces core BPD symptoms, including suicidal ideation and severe mood fluctuations, but also facilitates profound, long-lasting changes in the patient's underlying personality structure. Clinical follow-ups indicate that patients undergoing ST often achieve a higher rate of full clinical recovery and a lower dropout rate compared to conventional treatment as usual (Farrell et al., 2009; Giesen-Bloo et al., 2006).

#### *Transference-focused psychotherapy (TFP)*

Another cornerstone of comprehensive, evidence-based BPD treatment is transference-focused psychotherapy, a highly structured, twice-weekly psychodynamic intervention meticulously developed by Otto Kernberg and his colleagues. TFP is fundamentally rooted in psychoanalytic object relations theory and specifically addresses the psychological mechanism of "splitting," which is heavily prevalent in individuals with borderline personality organization. Splitting involves an overwhelming inability to integrate positive and negative qualities of the self and others into a cohesive, realistic whole. This profound cognitive and emotional division leads to severe identity diffusion and the chaotic, highly unstable interpersonal relationships characteristic of the disorder. Unlike DBT or ST, which strongly incorporate skills training or cognitive restructuring exercises, TFP primarily utilizes the immediate, unfolding relationship between the patient and the therapist—the transference (therapist—the transference) as the principal vehicle for therapeutic change. By carefully observing, interpreting, and confronting the patient's distorted perceptions as they emerge in the

therapeutic session in real-time, the therapist helps the patient integrate these fragmented internal representations. Empirical research consistently supports the high efficacy of TFP, demonstrating its distinct capacity to not only decrease impulsive behaviors and suicidality but also significantly improve the patient's reflective functioning, secure attachment capabilities, and overall psychosocial integration (Clarkin et al., 2007; Doering et al., 2010).

#### *Challenges in pharmacological treatment*

Pharmacotherapy in the clinical course of BPD remains one of the most controversial and insufficiently regulated areas within modern psychiatry. Currently, no single drug is officially registered by the US Food and Drug Administration (FDA) or the European Medicines Agency (EMA) as a targeted preparation for the treatment of borderline personality disorder. Therefore, all pharmacological interventions undertaken by physicians are strictly off-label. Medications do not treat the underlying personality disorder itself; rather, they serve solely as a preventive measure utilized in emergencies to temporarily suppress the most destructive or acute symptoms.

The use of pharmacological agents in this vulnerable patient population carries significant risks. Due to the high variability of symptoms, patients with BPD are particularly susceptible to polypharmacy, which drastically increases the statistical risk of dangerous drug interactions. Furthermore, the inherent impulsivity woven into the clinical picture of BPD means that these patients often fail to follow strict medical advice or, critically, may use prescribed medications to execute suicide attempts via deliberate overdose.

According to clinical reports, if pharmacotherapy is deemed absolutely necessary for instance, to rapidly control acute agitation, severe aggression, or pseudopsychotic symptoms, physicians should strictly limit themselves to second-generation antipsychotics (SGAs). This safer class of medications includes olanzapine, risperidone, quetiapine, ziprasidone, and aripiprazole. The primary mechanism of action for SGAs involves not only antagonism at dopaminergic D2 receptors but also the simultaneous, crucial blockade of serotonergic 5HT-2A receptors (Rybakowski, 2023). Neuropharmacological data indicates that these drugs are characterized by a substantially faster dissociation rate from D2 receptors, making their inhibitory effect on the dopaminergic system in the striatum more transient and physiological in nature (Kapur & Seeman, 2001). In everyday clinical practice, this translates to a significantly lower risk of troublesome and physically dangerous extrapyramidal symptoms (EPS), such as severe muscle stiffness, tremors, or tardive dyskinesia, which are heavily associated with classic, first-generation neuroleptics (Divac et al., 2014; Weiden, 2007). Consequently, the overarching safety profile of SGAs is much more favorable for this high-risk group.

The clinical presentation of BPD is frequently complicated by numerous comorbidities, the most common being severe depressive disorders. Effectively treating a depressed mood is essential to improve the patient's overall cognitive functioning and enabling their active, productive participation in psychotherapy (enable their active, productive participation in psychotherapy). For this specific purpose, selective serotonin reuptake inhibitors (SSRIs), such as sertraline or fluoxetine, are the most commonly and safely prescribed pharmacological agents. However, understanding which drugs to avoid is equally as critical as knowing which to prescribe. Clinical evidence conclusively demonstrates that the use of tricyclic antidepressants (TCAs) and reboxetine in patients with BPD can produce severe adverse effects completely counterproductive to therapeutic goals. By strongly inhibiting the reuptake of noradrenaline, these drugs cause a dangerous, excessive accumulation of this neurotransmitter within the synaptic cleft. Instead of successfully elevating mood, this mechanism can trigger a drastic, unmanageable increase in irritability, aggression, internal anxiety, and impulsivity, posing a direct threat to the patient's immediate safety. Additionally, TCAs are highly toxic in overdose scenarios, a pharmacological fact that completely disqualifies them as a viable therapeutic option for a population exhibiting high suicidal tendencies.

#### *Psychopharmacological innovations: The role of ketamine*

Given the distinctly limited effectiveness of classic antidepressants in patients with borderline personality disorder, clinical researchers are constantly exploring novel, fast-acting pharmacological solutions. In recent years, the intravenous administration of ketamine (NMDA receptor antagonist) has generated considerable, evidence-based optimism. This substance, historically known primarily for its diverse applications in anesthesiology, has demonstrated a proven ability to almost immediately, often within a few short hours, alleviate severe depressive symptoms and intrusive suicidal ideation. This rapid onset of action is particularly vital in the context of BPD, a condition distinctly characterized by an exceptionally high incidence of impulsive self-harming behavior.

One of the latest and most groundbreaking pilot studies rigorously evaluated the therapeutic effect of a single intravenous infusion of ketamine exclusively in patients with severe BPD. In this double-blind,

randomized controlled trial, Fineberg et al. (2023) compared the clinical efficacy of ketamine against midazolam. Midazolam was specifically chosen as an active psychoactive placebo to effectively blind participants to their group assignment, ensuring the high reliability of the reported results. The researchers utilized a comprehensive battery of psychometric tools to meticulously track changes in affective instability, suicidal ideation, and general psychosocial impairment over a predetermined follow-up period. The experimental results proved highly promising and statistically robust. Data showed that fourteen days post-administration, the cohort receiving the subanesthetic ketamine infusion reported a significantly greater and far more stable improvement in daily social and occupational functioning compared to the midazolam control group. Furthermore, this profound functional improvement strongly correlated with a notable, sustained reduction in co-occurring depressive symptoms and a marked decrease in the intensity of acute self-injurious urges. Although the clinical use of ketamine still undoubtedly requires extensive, multi-center clinical trials to establish definitive long-term dosing protocols and comprehensive safety profiles, its unprecedented capacity to rapidly interrupt acute mental health crises opens an entirely new chapter in the acute management of severe BPD exacerbations.

### **Discussion**

Borderline personality disorder (BPD) remains one of the greatest clinical challenges facing modern psychiatry and clinical psychology today. For many years, this complex condition was heavily stigmatized and widely considered highly resistant to standard psychiatric treatment. However, as this literature review extensively details, the modern medical paradigm has undergone a radical, evidence-based change. A deeper scientific understanding of the complex, multifactorial pathophysiology of BPD, including documented amygdala hyperreactivity, prefrontal cortex hypofrontality, profound HPA axis dysregulation, and emerging disorders within the innovatively studied gut-brain axis has allowed researchers and clinicians to develop more precise and highly effective therapeutic strategies.

An analysis of the current literature clearly dictates that the first-line treatment for BPD remains integrated forms of evidence-based psychotherapy, in particular, dialectical behavior therapy (DBT) and mentalization-based treatment (MBT). These therapies provide patients with the necessary psychological tools to safely regulate their volatile emotions and accurately understand their own intentions as well as those of their surrounding environment. Crucially for optimizing the overall treatment process, short-term, intensive forms of psychotherapy (typically lasting 5 to 6 months) consistently demonstrate higher clinical efficacy in reducing self-harming behaviors and depressive symptoms than classic, extended long-term programs. Shorter intervention times inherently minimize the risk of patient burnout, prevent the premature discontinuation of treatment, and significantly reduce the rate of psychiatric hospitalizations. Furthermore, specifically in the case of adolescents, it is absolutely crucial to actively involve parents and guardians in the therapeutic process. This systemic involvement significantly increases the patient's critical sense of validation and security, directly translating into a notably better clinical prognosis.

In the overarching context of biological interventions, it must be strongly emphasized that the pharmacological treatment of BPD is exclusively off-label and should only be considered as a temporary, supportive measure aimed solely at providing immediate relief from the most severe, acute symptoms. Second-generation antipsychotics (SGAs) safely form the foundation of necessary pharmacotherapy, while innovative intravenous ketamine infusions stand as a highly promising method for quickly relieving sudden, life-threatening depressive episodes and suicidal thoughts. Above all else, clinicians must strictly avoid the dangers of polypharmacy.

### **Conclusion**

Further scientific research on borderline personality disorder should strategically focus on analyzing the long-term clinical effects of new psychological intervention methods, such as iconic therapy (IT). Simultaneously, there is a critical need to expand scientific knowledge in the emerging field of psychobiotics and targeted gut microbiome modulation as it relates to psychiatric health. Ultimately, a holistic, highly personalized approach, one combining modern evidence-based psychotherapy, strictly rational biological treatment, and active environmental support, is currently the only proven, effective way to sustainably improve the quality of life of patients carrying this diagnosis.

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