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DIMENSIONAL PREDICTION OF BORDERLINE PERSONALITY DISORDER TRAITS: A CROSS-SAMPLE COMPARISON

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ABSTRACT

Borderline Personality Disorder (BPD) presents a significant challenge in clinical diagnosis and treatment due to its pervasive pattern of instability in interpersonal relationships, self-image, affects, and impulsivity, often manifesting in early adulthood. Despite its prevalence, issues with categorical personality disorder (PD) diagnosis have been highlighted, leading to the introduction of the Alternative Model of Personality Disorders (AMPD) in Section III of the DSM-5. This doctoral project seeks to address the current mapping of AMPD traits for BPD by evaluating the comprehensive assessment of traits relevant to BPD to determine whether these traits accurately measure the construct or if supplemental characteristics should be considered.

The study examined the predictive validity enhancement achieved by integrating additional Computerized Adaptive Test of Personality Disorders (CAT-PD) traits alongside conventional measures of BPD. I systematically manipulated CAT-PD traits to augment existing scales by employing established BPD measures such as the Personality Assessment Inventory borderline scale (PAI BPD), Zanarini (ZAN), and Personality Diagnostic Questionnaire – Version 4 borderline scale (PDQ-4 BPD) alongside a composite score. The study assessed the predictive value of CAT-PD traits through comprehensive zero-order correlation and linear regression analyses, revealing their substantial contribution beyond DSM-5 Section III traits. The findings highlight the interconnectedness and complexity of personality pathology and suggest that integrating CAT-PD traits enhances the accuracy of predictive models, informing personalized treatment strategies tailored to address the unique needs of individuals with BPD.

TABLE OF CONTENTS

Section I: Introduction

Introduction of Topic

The landscape of mental health diagnosis has long been dominated by the categorical model, offering a structured framework for classifying disorders but often failing to capture the nuanced complexities of personality pathology (Friedel, 2021). Within this framework, borderline personality disorder (BPD) has emerged as a particularly challenging diagnosis, characterized by pervasive instability in interpersonal relationships, self-image, and affect, coupled with marked impulsivity. Historically, BPD has carried a heavy burden of stigma, earning a reputation as a "hard to treat" condition due to its multifaceted symptomatology and intricate interplay of emotional dysregulation (Friedel, 2021).

Attempting to understand and define BPD has been marked by significant milestones. Adolph Stern's seminal work in 1938 provided early insights into the disorder, laying the groundwork for subsequent research efforts by pioneers like Gunderson and Spitz (National Collaborating Centre for Mental Health, 2009; Stern, 1938). Their collective endeavors led to delineating diagnostic criteria for BPD, ultimately culminating in its official recognition and inclusion in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III) in 1980 (APA, 1980). This pivotal moment in psychiatric history marked a critical step forward in acknowledging and addressing the unique challenges posed by BPD.

While our understanding of BPD has evolved since the twentieth century, questions persist regarding its etiology and diagnostic framework. Current research suggests a multifactorial etiology, with genetics and biological factors accounting for a

significant portion of the risk, while environmental influences also play a substantial role (Bozzatello, 2021). Despite progress, the categorical model's limitations have become increasingly apparent, prompting a paradigm shift towards a dimensional approach (Cain & Mulay, 2022). The DSM-5 introduced a two-dimensional framework emphasizing symptomatology and the underlying personality traits contributing to disorder manifestation (APA, 2013).

Considering these developments, the current project seeks to bridge the gap between traditional diagnostic practices and emerging dimensional models. By examining the proposed traits associated with BPD and exploring the potential integration of additional traits from the CAT-PD (Simms et al., 2011), this research aims to enhance our understanding of the disorder and improve diagnostic accuracy. Through a comprehensive analysis of predictive validity within a dimensional framework, this study endeavors to advance our knowledge of BPD and inform more effective assessment and treatment strategies, reflecting the evolving landscape of psychiatric diagnosis.

Purpose

A series of significant challenges have marked the adoption of the Alternative Model of Personality Disorders (AMPD) since its introduction in 2013 (APA, 2013). The primary aim of this doctoral project is to contribute substantively to the ongoing discourse concerning the vital shift toward the AMPD framework. In particular, the current project endeavors to reconcile traditional diagnostic methodologies with emerging dimensional models. Through a thorough examination of the proposed traits linked to borderline personality disorder (BPD) and investigation into the potential

integration of supplementary traits from the CAT-PD, this research endeavors to advance our comprehension of the disorder and enhance diagnostic precision.

Statement of Significance

Individuals diagnosed with BPD often exhibit self-sabotaging behaviors just as they approach achieving their goals, and some may experience symptoms resembling psychosis during periods of heightened stress (APA, 2022). For many, a sense of security is found in transitional objects, such as pets, rather than interpersonal relationships (Hooley & Wilson-Murphy, 2012). Suicide is a significant risk, particularly for those with co-occurring depressive or substance use disorders, often resulting from self-harm or failed suicide attempts (Oldham, 2006). Moreover, the disorder can manifest physical handicaps stemming from self-inflicted injuries (APA, 2022). Recurrent job losses, educational interruptions, and relationship turmoil are frequent challenges faced by individuals with this disorder, often stemming from a history of childhood trauma, including abuse, neglect, or parental loss (APA, 2022).

While clinical data suggests a higher prevalence of borderline personality disorder among women, community studies reveal no significant gender disparity, hinting at potential biases in help-seeking behaviors (APA, 2022). This highlights the need for a more nuanced understanding of gender influences diagnostic patterns.

However, the current categorical approach to diagnosing mental health disorders allows for 256 potential combinations of symptoms for BPD diagnosis alone, indicating the complexity and heterogeneity of the disorder (Oladottir, 2022). As Krueger (2019) aptly noted, human personality is too multifaceted to fit neatly into predefined categories.

In response to these challenges, the literature review presented in this project critically examines the limitations of the categorical model in defining personality, particularly concerning BPD. It also evaluates the emerging Alternative Model of Personality Disorder (AMPD), which offers a dimensional approach to diagnosis. This doctoral project aims to contribute to ongoing discussions surrounding the transition to the AMPD framework, seeking to reconcile traditional diagnostic approaches with more quantitative-based dimensional models. By exploring current research on the AMPD and its implications for BPD diagnosis, this project aims to enhance our understanding of personality disorders and improve diagnostic accuracy and treatment outcomes.

Section II: Literature Review

Personality Disorder

Personality disorders have a rich historical backdrop, with roots tracing ancient times. As early as 400 B.C., Hippocrates delineated four fundamental personality types: choleric, melancholic, sanguine, and phlegmatic, each characterized by distinct emotional dispositions (Millon, 2012). The term "persona," originating from the Greek, initially referred to the theatrical masks worn by actors, implying a facade or pretense of identity beyond one's true nature (Millon, 2016). Over time, this concept evolved to connote the outward expression of an individual's inherent traits rather than a superficial guise (Million, 2016).

The concept of personality disorders began to take shape more formally in the 18th century, with Pinel's characterization of "Manie sans delire," or mania without delusion (Crocq, 2013). Pinel observed individuals exhibiting irrational behavior while maintaining a grasp on reality, thus laying the groundwork for what would later be recognized as personality disorders (Crocq, 2013). These individuals displayed seemingly normal cognitive functions but manifested inexplicable anger, violence, and even homicidal tendencies (Crocq, 2013).

Contemporary classifications organize personality disorders into three clusters based on shared descriptive characteristics (APA, 2022). Cluster A encompasses paranoid, schizoid, and schizotypal personality disorders typified by eccentric or odd behaviors. Cluster B comprises antisocial, borderline, histrionic, and narcissistic personality disorders characterized by dramatic, emotional, or erratic tendencies. Cluster C includes avoidant, dependent, and obsessive-compulsive personality disorders marked

by anxiety or fearfulness. However, it's important to note that while this clustering system serves as a helpful framework in specific contexts, it has notable limitations and lacks consistent validation. Often, individuals may exhibit traits from multiple clusters or disorders simultaneously, complicating diagnosis and treatment.

Epidemiological studies from various countries indicate varying prevalence rates across different clusters, with a median prevalence of 3.6% for Cluster A, 4.5% for Cluster B, 2.8% for Cluster C, and 10.5% for any personality disorder (APA, 2022). However, these figures are subject to cultural and ethnic variations and differences in diagnostic criteria and assessment tools, highlighting the need for a nuanced understanding of cross-cultural factors in personality disorder prevalence.

Cluster A

Paranoid Personality Disorder is characterized by an enduring and ingrained distrust and suspicion of others, leading individuals to interpret the motives of those around them as malevolent (APA, 2022). This pattern typically emerges in early adulthood and permeates various aspects of the individual's life.

Schizoid Personality Disorder is defined by a pervasive tendency to detach from social relationships, coupled with a limited range of emotional expression in interpersonal interactions. This detachment and emotional restriction typically manifest early in adulthood and persist across different situations (APA, 2022).

Schizotypal Personality Disorder is characterized by a pervasive pattern of social and interpersonal deficits, including discomfort with close relationships and cognitive or perceptual distortions. Additionally, individuals may exhibit eccentric behaviors. These

characteristics typically emerge in early adulthood and are present across various contexts (APA, 2022).

Cluster B

Antisocial Personality Disorder is characterized by a pervasive disregard for and violation of the rights of others. It typically originates in childhood or early adolescence and persists into adulthood (APA, 2022). This pattern is often associated with traits such as deceit and manipulation, prompting the need for a comprehensive assessment incorporating information from multiple sources.

Borderline Personality Disorder is marked by a pervasive instability in interpersonal relationships, self-image, and emotions, alongside pronounced impulsivity. These features typically emerge in early adulthood and manifest across diverse settings (APA, 2022).

Histrionic Personality Disorder is defined by pervasive and excessive emotionality and a compelling need for attention. These behaviors typically manifest in early adulthood and are evident across various contexts (APA, 2022).

Narcissistic Personality Disorder is characterized by a pervasive sense of grandiosity, an insatiable need for admiration, and a lack of empathy. These traits typically become apparent in early adulthood and persist across different situations (APA, 2022).

Cluster C

Avoidant Personality Disorder is characterized by a pervasive pattern of social inhibition, feelings of inadequacy, and an intense sensitivity to negative evaluation. These traits typically manifest in early adulthood across diverse situations (APA, 2022).

Dependent Personality Disorder entails a profound and excessive need to be cared for, resulting in submissive and clingy behavior and a fear of separation. This pattern typically begins in early adulthood and persists across various contexts. Such behaviors aim to solicit caregiving and stem from a self-perception of the inability to function autonomously (APA, 2022).

Obsessive-Compulsive Personality Disorder is defined by an overwhelming preoccupation with orderliness, perfectionism, and a desire for mental and interpersonal control, often at the expense of flexibility and efficiency. This pattern typically arises in early adulthood and permeates various aspects of life (APA, 2022).

Borderline Personality Disorder

History of Borderline Personality Disorder

A diagnosis of BPD often instills fear and uncertainty in individuals, leading to numerous questions and concerns. As clinicians, it is paramount that we grasp the intricacies of this diagnosis and its profound impact on both the field of psychology and the lives of those affected. The term "borderline" has undergone significant evolution over the past eight decades, yet the symptoms associated with BPD have historical roots dating back over three millennia (Stern, 1938). Early references by renowned figures such as Homer, Hippocrates, and Aretaeus hinted at manifestations akin to present-day BPD symptoms, setting the stage for further exploration in subsequent centuries (Stern, 1938).

In the early twentieth century, pivotal contributions from German psychiatrists Emil Kraepelin and Kurt Schneider provided initial frameworks for understanding BPD (Friedel, 2012). Meanwhile, psychoanalysts of the era encountered a subset of patients

who defied conventional diagnostic categories and presented perplexing challenges in therapeutic settings (Friedel, 2012). These individuals exhibited symptoms not easily ameliorated through psychoanalytic techniques, prompting clinicians to coin terms such as "borderline psychosis" and "latent schizophrenia" (Cavelti, 2021). However, a consensus on diagnostic criteria remained elusive, leading to BPD being relegated to the realm of the "wastebasket diagnosis" (Friedel, 2012).

A seminal moment in BPD history occurred in 1938 when Adolph Stern published a seminal article delineating the characteristics of his "borderline group" (Stein, 1938). Stern's pioneering work identified ten core traits, several of which align closely with contemporary diagnostic criteria (Stein, 1938). Notably, Stern emphasized the profound emotional deprivation experienced by individuals with BPD, attributing it to inherent predispositions rather than solely environmental factors (Stein, 1938).

Subsequent decades witnessed significant advancements in understanding BPD, with scholars like Robert Knight integrating ego psychology into psychoanalytic frameworks and Otto Kernberg proposing distinct personality organizations within BPD (Kernberg, 1975). Empirical research by Roy Grinker and colleagues in 1968 provided empirical validation for BPD traits, further solidifying its recognition as a distinct clinical entity (Friedel, 2012).

The groundbreaking efforts of John Gunderson and Margaret Singer in the 1970s culminated in the development of the Diagnostic Interview for Borderline Patients (DIB). This structured research instrument facilitated standardized diagnosis and enhanced the disorder's validity (Friedel, 2012). This landmark achievement paved the way for BPD's

inclusion in the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III) in 1980, cementing its status as a recognized psychiatric disorder.

Moreover, pioneering work by John Brinkley, Bernard Beitman, and Robert Friedel in 1979 shed light on the potential efficacy of pharmacological interventions, particularly low-dose antipsychotics, in alleviating BPD symptoms (Friedel, 2012). This multifaceted approach to treatment underscored the complexity of BPD management and highlighted the importance of a comprehensive, interdisciplinary approach to care (Friedel, 2012).

The historical trajectory of BPD elucidates the evolving understanding of this complex disorder and underscores the interdisciplinary efforts required to address its multifaceted manifestations effectively. Through continued research and collaboration, clinicians and researchers strive to enhance diagnostic precision, refine treatment modalities, and ultimately improve outcomes for individuals living with BPD.

Diagnostic Criteria for BPD According to Section II Categorical Model

In the current DSM (APA, 2022), BPD is described under the categorical model as 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. To receive a diagnosis of BPD, five or more of the following criteria need to be met. The criterion include frantic efforts to avoid real or imagined abandonment, a pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation, identity disturbance: markedly and persistently unstable self-image or sense of self, impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge

eating), recurrent suicidal behavior, gestures, threats, or self-mutilating behavior, affective instability due to a 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), chronic feelings of emptiness, inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights), transient, stress-related paranoid ideation or severe dissociative symptoms (APA, 2022).

Theoretical Models of Borderline Personality Disorder

Biological Perspectives

In addition to historical and clinical perspectives, contemporary research sheds light on the biological underpinnings of BPD. Family and twin studies have underscored a significant genetic predisposition, estimating biological/genetic vulnerability at approximately 40% (Amad et al., 2014).

Neurologically, dysregulation in BPD implicates the sympathetic nervous system (SNS), which is responsible for mobilizing our bodies in response to perceived threats (Cavazzi & Becerra, 2014). The biosocial theory posits that individuals with BPD exhibit baseline hyperarousal, heightened responsiveness to stimuli, and impaired habituation to arousing stimuli (Cavazzi & Becerra, 2014). While self-report data support the baseline hyperarousal hypothesis, physiological findings have been inconsistent, suggesting heterogeneity within BPD presentations (Cavazzi & Becerra, 2014). Moreover, BPD often intersects with trauma, further complicating the understanding of its neurobiological underpinnings (Cavazzi & Becerra, 2014).

Neuroimaging studies offer insights into structural and functional abnormalities associated with BPD. Reduced volume in brain regions such as the amygdala (involved in

emotion processing) and hippocampus (related to memory and emotion) has been observed in individuals with BPD (McClure et al., 2016). Additionally, abnormalities in the anterior cingulate cortex (linked to decision-making and impulse control), orbitofrontal cortex (implicated in emotion and decision-making), and dorsolateral prefrontal cortex (associated with executive function, planning, and inhibition) have been documented (McClure et al., 2016). However, these findings are not conclusive, as BPD often co-occurs with other disorders such as PTSD and depression, which themselves are associated with brain structural and functional alterations (McClure et al., 2016).

Affective Perspectives

The hallmark feature of BPD revolves around difficulties in emotion regulation, constituting a central theme in its clinical presentation. As outlined in the DSM-5 criteria, manifestations of BPD predominantly manifest in emotional terms, including intense fear of abandonment, erratic mood fluctuations, inappropriate anger outbursts, stress-induced paranoia, feelings of profound emptiness, suicidal ideation or threats, impulsive behaviors, and tumultuous interpersonal relationships (APA, 2022).

Studies by Baer et al., (2012) and Grzegorzewski and Kucharska (2018) corroborate these observations, highlighting that individuals with BPD habitually gravitate toward harmful stimuli, have heightened recall of negative memories, tend to harbor negative self-perceptions and interpretations of situations, expend significant effort in suppressing negative thoughts, and often ruminate excessively. Additionally, Grzegorzewski and Kucharska (2018) emphasize that individuals with BPD frequently experience intense feelings of shame, further exacerbating their emotional distress.

Crucially, individuals with BPD possess a keen awareness of their emotional dysregulation, fueling desperate attempts to regain control, often through maladaptive strategies such as self-harm or suicidal behavior. Paradoxically, this heightened awareness can also prompt emotional shutdown as a coping mechanism to mitigate the overwhelming pain associated with the inability to regulate emotions (Neacsiu & Linehan, 2014). Thus, the profound struggle to manage emotions underscores the profound and debilitating impact of BPD on individuals' lives.

Developmental Perspectives

BPD frequently co-occurs with trauma, particularly childhood trauma, as evidenced by extensive research findings (Ibrahim et al., 2018). Ibrahim, Cosgrave, and Woolgar (2018) conducted a comprehensive review of developmental literature, revealing a consistent association between childhood maltreatment and borderline features across various mistreatment definitions and methodological approaches. Winsper's (2016) meta-analysis further corroborates these findings, identifying significant links between BPD and multiple forms of abuse and neglect, such as sexual abuse, physical abuse, maternal hostility/verbal abuse, and neglect, across both adult and youth populations. Additionally, many behaviors characteristic of adult BPD, including self-harm, have been observed in youth with BPD as well (Winsper et al., 2016).

However, models attributing BPD solely to trauma face several challenges, as outlined in Boucher et al. (2017) review. Notably, not all individuals who experience abuse or trauma develop BPD, and conversely, some individuals with BPD have no history of abuse or trauma (Boucher et al., 2017). This discrepancy underscores the complexity of the relationship between trauma and BPD, with psychologists expressing

differing views on the matter (Boucher et al., 2017). Some advocate for labeling BPD as "Complex Posttraumatic Stress Disorder" (CPTSD), emphasizing prolonged or repeated exposure to trauma, while others argue for distinct categorization (Resick et al., 2012). Currently, the DSM does not recognize CPTSD as a separate diagnostic category.

Moreover, disorganized attachment styles have been linked to BPD, with individuals reporting retrospective experiences of parental negatives, particularly maternal factors such as abuse, neglect, emotional coldness, rejection, and inconsistency (Fonagy, 2000). Parents of individuals with BPD often describe them as having difficult temperaments and exhibiting verbally abusive behavior compared to non-BPD siblings (Boucher et al., 2017).

Neacsiu and Linehan (2014) underscore the profound impact of such adverse environments on emotional regulation and self-concept formation, positing that individuals raised in such circumstances struggle to develop practical emotion regulation skills and a coherent sense of self. Consequently, they may resort to dysfunctional coping mechanisms such as self-harm in attempts to manage emotional distress, perpetuating a cycle of self-invalidation and emotional dysregulation (Neacsiu & Linehan, 2014). Overall, the interplay between childhood trauma, attachment styles, and emotional regulation deficits contributes significantly to the complex etiology of BPD.

Risk Factors for Borderline Personality Disorder

Genetic Influence

While advancements in neuroscience have provided valuable insights into brain functioning, the etiology and treatment of mental illnesses, including BPD, remain elusive. The direct links to specific disorders remain limited despite identifying genetic

markers, neurotransmitter abnormalities, and functional brain imaging changes (Ni et al., 2007). It is increasingly recognized that biological measures are more closely associated with trait dimensions than categorical diagnoses (Ni et al., 2007). In the case of BPD, individual genetic markers account for only a tiny fraction of the variance, highlighting the multifaceted nature of the disorder (Ni et al., 2007).

Further complicating our understanding, Bassir Nia et al. (2018) underscored the complexity of BPD, emphasizing its multifactorial etiology arising from the intricate interplay between genetic and environmental factors. Twin and family studies suggest a moderate to high heritability of BPD, yet ecological influences also play a significant role in its development and expression (Bassir Nia et al., 2018).

Moreover, emerging research suggests that epigenetic mechanisms may contribute to the pathogenesis of BPD (Grant et al., 2008). Epigenetic modifications, which influence gene expression without altering the underlying DNA sequence, can be influenced by environmental factors such as childhood trauma, stress, and interpersonal experiences (Turecki & Meaney, 2016). These epigenetic changes may contribute to the dysregulation of neural circuits implicated in emotion regulation and interpersonal functioning, further elucidating the complex interplay between genetic predisposition and environmental influences in the development of BPD (Turecki & Meaney, 2016).

Additionally, emerging evidence points to alterations in the neurobiological systems implicated in stress response and emotion regulation in individuals with BPD (Carvalho Fernando et al., 2013). Dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis, which governs the body's stress response, has been observed in BPD, contributing to heightened emotional reactivity and difficulties in emotion regulation

(Carvalho Fernando et al., 2013). Moreover, abnormalities in oxytocin, a neuropeptide involved in social bonding and trust, have also been implicated in BPD, suggesting disruptions in interpersonal functioning and attachment processes (Ebert et al., 2013).

In summary, while significant progress has been made in elucidating the neurobiological underpinnings of BPD, a comprehensive understanding of its etiology and treatment requires consideration of the complex interplay between genetic vulnerabilities, environmental influences, epigenetic mechanisms, and neurobiological dysregulation. Integrating findings from multiple levels of analysis holds promise for advancing our understanding and improving interventions for individuals with BPD.

Gender differences in diagnosis rates

Current research highlights notable gender differences in the presentation and comorbidity patterns of BPD. As outlined in the Diagnostic and Statistical Manual Fifth Edition Text-Revision (DSM-5-TR), BPD appears more prevalent among women in clinical samples. In contrast, community-based studies demonstrate no significant gender discrepancy in prevalence (APA, 2022). This gender difference is attributed, in part, to a higher tendency among women to seek help from clinical settings (APA, 2013).

Sansone and Sansone (2011) elucidated distinct gender-specific features of BPD, noting that men with BPD often exhibit an explosive temperament and higher levels of novelty seeking compared to their female counterparts. Moreover, men with BPD are more likely to present with comorbid substance use disorders, reflecting a unique aspect of their clinical profile (Sansone & Sansone, 2011).

Conversely, women with BPD commonly experience comorbid conditions such as eating disorders, mood disorders, anxiety disorders, and posttraumatic stress disorder

(PTSD), reflecting a broader spectrum of emotional dysregulation and psychopathology (Dehlbom et al., 2022). Additionally, Axis II comorbidity patterns reveal that men with BPD are more likely than women to exhibit antisocial personality disorder, further underscoring gender-specific variations in clinical presentation and symptomatology (Dehlbom et al., 2022).

Treatment utilization patterns also differ between genders, with men with BPD more inclined toward treatment histories related to substance abuse interventions, aligning with their higher rates of substance use disorders (Sansone & Sansone, 2011). In contrast, women with BPD are more likely to have treatment histories characterized by a combination of pharmacotherapy and psychotherapy, indicating a multifaceted approach to addressing their complex clinical needs (Sansone & Sansone, 2011).

Overall, understanding these gender-specific differences in BPD presentation and comorbidity patterns is crucial for tailoring interventions and treatment approaches that effectively address the unique clinical needs of individuals with BPD, irrespective of gender.

Relationship with Suicide and Self-harm

Suicidal ideation, while relatively common in the general population, poses significant challenges in predicting actual suicide attempts, especially in individuals with BPD (Paris, 2020). One characteristic often associated with BPD is repetitive self-harm, such as wrist-cutting, which, for many individuals, serves as a coping mechanism to alleviate intense negative emotions rather than a direct suicidal intent (Linehan, 1993b; Paris, 2020). This distinction highlights the complexity of assessing suicide risk in

individuals with BPD, as self-harming behaviors may not always align with suicidal intentions (Linehan, 1993b; Paris, 2020).

Research indicates that a substantial portion of individuals with BPD engage in self-harm from an early age, with a significant proportion initiating self-harm during adolescence or adulthood (Zanarini, 2006). However, the transition from suicidal ideation to suicide attempts and completions is multifaceted and challenging to predict accurately (Maris et al., 2000). Maris et al. (2000) noted that while a subset of individuals who attempt suicide may eventually complete suicide, the predictive factors for such outcomes remain elusive, particularly in individuals with BPD.

Studies focusing on the prediction of continued suicidal behavior in individuals with BPD emphasize the role of affective instability as a key diagnostic criterion associated with the persistence of suicidality (Yen et al., 2004). Despite the lack of extensive research specifically on completed suicides in individuals with BPD, it is estimated that a significant proportion—approximately 10%—eventually die by suicide (Paris, 2020). For individuals with chronic suicidality, the desire for an open exit door may serve as a coping mechanism to endure emotional distress, highlighting the paradoxical nature of treating suicidality in individuals with BPD (Fine & Sasone, 1990; Paris, 2020).

In understanding the complex interplay between nonsuicidal self-injury (NSSI) and suicidality in individuals with BPD, Evans and Simms (2019) propose a comprehensive theoretical framework that integrates shared and unique variance. Joiner's Interpersonal Theory of Suicide provides valuable insights into the development of suicidality, suggesting that perceived burdensomeness and thwarted belongingness are

crucial factors contributing to suicidal ideation and behavior (Joiner, 2005). Anhedonia, uniquely associated with suicidality, may serve as a marker for these underlying interpersonal dynamics, highlighting the importance of targeted therapeutic interventions aimed at increasing hedonic activity (Evans & Simms, 2019).

In clinical practice, a thorough assessment of NSSI function and underlying motivations is essential for evaluating suicide risk in individuals with BPD. Interventions such as Behavioral Activation Therapy and Acceptance and Commitment Therapy, targeting anhedonia and enhancing hedonic experiences, hold promise in mitigating suicidality in this population (Dimidjian et al., 2001; Hayes, Strosahl, & Wilson, 2016). Overall, addressing suicidality in individuals with BPD requires a nuanced understanding of the complex interplay between emotional dysregulation, self-harming behaviors, and underlying interpersonal dynamics, coupled with targeted interventions tailored to individual needs.

Hospitalization

In simple terms, hospitalization is not recommended for individuals with BPD (Linehan, 2014). Despite previous guidelines suggesting hospitalization for those deemed "suicidal," there's little evidence supporting its effectiveness (Linehan, 2014). Hospitalization is typically considered for three main reasons: to prevent harm to oneself or others, to remove individuals from harmful environments, and to focus on health in a supportive environment (Friedman, 2008).

However, research suggests that hospitalization may not address the root causes of BPD and could even exacerbate symptoms (Linehan, 2014). Nurses often face

challenges dealing with problematic behaviors such as stalking, threats, and manipulation among patients with BPD (Laskowski, 2001).

Maintaining social networks and skills is crucial for individuals with BPD, and hospitalization may disrupt these connections, potentially worsening their condition (Paris, 2020). Dialectical Behavioral Therapy (DBT) is a preferred treatment for BPD, and overnight holds are the maximum recommended duration for hospital stays during DBT (Linehan, 2014).

While hospitalization may provide temporary relief in a controlled environment, it doesn't equip individuals with BPD with the necessary tools to manage stressors in everyday life (Friedman, 2008). Ultimately, interventions like DBT offer more sustainable solutions for individuals with BPD to develop resilience and coping mechanisms outside of hospital settings (Linehan, 2014).

Co-occurring disorders

BPD often co-occurs with various other mental health conditions, including substance-related and addictive disorders, mood disorders, ADHD, anxiety disorders, PTSD, eating disorders, and other personality disorders (APA, 2022). Among these, bipolar disorder stands out as one of the most common misdiagnoses or co-occurring disorders (Bayes et al., 2014, 2019). Research indicates that a significant portion of individuals clinically diagnosed with bipolar disorder would meet the criteria for BPD but not bipolarity itself (Zimmerman et al., 2010).

Affective instability is a core trait underlying BPD, exacerbated by failures of psychological validation (Linehan, 1993a). In contrast, mood swings in bipolar disorder tend to be more spontaneous and less influenced by environmental factors (Koenigsberg,

2010). While impulsive behaviors, including self-harm and suicide attempts, are prevalent in both disorders, they are typically more episodic in bipolar disorder compared to the pervasive nature seen in BPD (Koenigsberg, 2010).

Misdiagnosis of BPD often occurs due to several mistaken beliefs, including the notion that the disorder is poorly defined, has a poor prognosis, and does not respond to treatment (Parker, 2011). However, specific features can help differentiate between BPD and bipolar disorder, such as the absence of a family history of bipolarity, onset in childhood or adolescence, a higher prevalence of women in clinical settings, distinct personality patterns, emotion dysregulation rather than mood episodes, a low threshold of response to stressors, the absence of melancholia or hypomania, and a non-specific response to mood stabilizers (Bayes et al., 2014, 2019).

Psychotic Symptoms

Throughout history, the characterization of BPD has been intertwined with the realm of psychosis, although often misunderstood or dismissed (Cavelti et al., 2021). The acknowledgment of psychotic symptoms within the diagnostic criteria of BPD in the fourth revision of the DSM marked a pivotal moment in understanding the complexity of this disorder (APA, 1994). However, the classification of psychotic symptoms within BPD remains an area of ongoing debate and refinement, particularly in the context of the alternative model of personality disorders presented in the DSM-5 (APA, 2013).

Auditory verbal hallucinations (AVH) stand out as a prominent manifestation of psychosis among individuals with BPD (Cavelti et al., 2019). These hallucinations, often perceived as critical, controlling, and distressing voices, exert significant influence over the individual's thoughts, emotions, and behaviors (Kingdon et al., 2010; Pearse et al.,

2014; Tschoeke et al., 2014). Studies comparing the characteristics of AVH in individuals with BPD and schizophrenia have revealed similarities in the frequency, duration, and location of the hallucinations (Kingdon et al., 2010; Tschoeke et al., 2014; Slotema et al., 2012). However, nuanced differences emerge in the subjective experience of these symptoms, with individuals with BPD often reporting greater distress and perceived control by the voices (Kingdon et al., 2010; Tschoeke et al., 2014; Slotema et al., 2012).

Beyond AVH, individuals with BPD may also experience a spectrum of other psychotic symptoms, including visual hallucinations, delusions, thought disturbances, and ideas of reference (Pearse et al., 2014; Niemantsverdriet et al., 2017). While these symptoms may share commonalities with psychotic disorders such as schizophrenia, they often present within the context of BPD-specific features, such as affective instability, identity disturbance, and interpersonal difficulties (Pearse et al., 2014; Niemantsverdriet et al., 2017).

The presence of psychotic symptoms in BPD is associated with a myriad of clinical challenges and adverse outcomes. Individuals experiencing these symptoms may exhibit heightened levels of depressive and anxious symptoms, increased feelings of loneliness and schizotypy, and a higher propensity for suicidal ideation and behavior (Niemantsverdriet et al., 2017). Furthermore, psychotic symptoms in BPD have been linked to more frequent hospital admissions and poorer treatment outcomes, underscoring the need for specialized interventions tailored to address both the core features of BPD and the accompanying psychotic manifestations (Furnes et al., 2021).

Recognizing the significance of psychotic symptoms in BPD requires a nuanced and holistic approach to diagnosis and treatment (Belohradova et al., 2022). Clinicians must conduct thorough assessments to differentiate between primary psychotic disorders and psychotic symptoms occurring within the context of BPD (Belohradova et al., 2022). Furthermore, treatment planning should integrate evidence-based interventions targeting both the core features of BPD, such as dialectical behavior therapy (DBT), and psychotic symptoms, potentially including antipsychotic medications and cognitive-behavioral interventions (Choi-Kain et al., 2017; Belohradova et al., 2022).

In conclusion, the co-occurrence of psychotic symptoms in individuals with BPD represents a complex clinical phenomenon with profound implications for diagnosis, treatment, and outcomes. By elucidating the unique characteristics and impact of psychotic symptoms within the context of BPD, clinicians can enhance their ability to provide comprehensive and effective care for these individuals, ultimately fostering improved quality of life and recovery (Cavelti et al., 2021).

Attachment

Attachment theory posits that the quality of early caregiver-child relationships shapes the individual's internal working model of themselves and others, influencing their subsequent interpersonal functioning and emotional regulation (Bowlby, 1969). A secure attachment fosters a sense of safety and trust, allowing the child to explore their environment confidently and develop healthy self-esteem and interpersonal skills (Ainsworth et al., 1978). However, insecure attachment patterns, characterized by inconsistency, neglect, or abuse in caregiving, can lay the groundwork for the

development of maladaptive personality traits, including those associated with BPD (Ainsworth et al., 1978).

A comprehensive review conducted by Agrawal et al., (2004) examined 13 studies investigating the relationship between BPD and attachment patterns. The findings consistently indicated a strong association between BPD diagnosis and insecure attachment styles (Agrawal et al., 2004). Specifically, individuals diagnosed with BPD frequently exhibited unresolved and fearful attachment patterns, reflecting unresolved trauma or unresolved mourning regarding past relationships (Main & Solomon, 1990). Remarkably, between 50% to 80% of individuals with BPD were classified as having unresolved attachment, underscoring the pervasive impact of early attachment experiences on personality development (Agrawal et al., 2004).

The prevalence of unresolved and fearful attachment patterns among individuals with BPD aligns with theoretical frameworks emphasizing interpersonal instability as a central feature of BPD psychopathology (Linehan, 1993a). Unresolved attachment may manifest in BPD through patterns of intense, unstable relationships, fear of abandonment, and difficulties in emotion regulation and self-identity (Main & Hesse, 1990). These findings underscore the critical role of early attachment experiences in shaping the core features of BPD and highlight the importance of attachment-informed interventions in clinical practice (Maine & Hesse, 1990).

In summary, the link between insecure attachment patterns and BPD underscores the profound influence of early relational experiences on personality development (Agrawal et al., 2004). Recognizing and addressing unresolved attachment issues may be essential in understanding and treating individuals with BPD, offering opportunities for

therapeutic interventions aimed at promoting more adaptive interpersonal functioning and emotional well-being (Linehan, 1993a).

Adolescence and Life Cycle

The emerging understanding of BPD suggests that its roots often trace back to childhood and adolescence, with identifiable precursors that may signal the development of the disorder later in life (Zanarini et al. 2001). Importantly, the precursors of BPD tend to manifest as enduring traits rather than transient symptoms (Depue & Lenzenweger, 2001). Adults diagnosed with BPD often exhibit a combination of externalizing behaviors and internalizing symptoms, reflecting both impulsivity and emotional dysregulation, which may have origins in childhood traits (Linehan, 2014).

Despite the accumulating evidence, there persists a misconception among clinicians that personality disorders, including BPD, cannot be diagnosed in adolescents (Sharp. 2014). Sharp (2014) delineates common misconceptions contributing to this belief, including concerns about nomenclature, the developmental nature of personality, and the stigma associated with personality disorder diagnoses. However, the current edition of the DSM permits the diagnosis of personality disorders in adolescents if symptoms persist for at least one year, challenging these misconceptions and underscoring the importance of early recognition and intervention (APA, 2022).

Paris (2020) emphasizes the potential consequences of overlooking BPD in adolescents, particularly the misattribution of symptoms to other conditions such as bipolar disorder. Failure to identify BPD in adolescence may result in inadequate treatment and poorer long-term outcomes (Paris, 2020). Early intervention offers the prospect of improved treatment efficacy and prognosis for individuals with BPD (Paris,

2020). However, the lack of research and clinical awareness in diagnosing BPD in adolescents hampers efforts to identify warning signs and implement timely interventions (Sharp, 2014).

Moving forward, research efforts are needed to explain the early indicators and trajectories of BPD development in adolescents (Paris, 2020). By identifying potential risk factors and early signs, clinicians can enhance their ability to recognize and intervene in the early stages of BPD, thereby mitigating the adverse outcomes associated with the disorder in adulthood (Sharp, 2014; Paris, 2020). Moreover, destigmatizing discussions surrounding BPD diagnosis in adolescents may facilitate earlier identification and access to appropriate interventions, ultimately improving the long-term prognosis and quality of life for individuals affected by this challenging disorder (Sharp, 2014; Paris, 2020).

Treatments for Borderline Personality Disorder

Dialectical Behavioral Therapy

In 1993, Marsha Linehan introduced Dialectical Behavior Therapy (DBT), a groundbreaking psychotherapeutic approach tailored specifically for individuals with borderline personality disorder (BPD) characterized by heightened anger and self-injurious tendencies, often necessitating frequent and brief hospitalizations (Lynch et al., 2007). DBT integrates various components, including individual psychotherapy, group skills training, telephone coaching, and therapist consultation teams, providing a comprehensive framework for addressing the complex needs of individuals with BPD (Linehan, 2014).

Notably, DBT marked a significant milestone as the first psychotherapy validated through controlled trials to effectively treat BPD, offering hope and tangible outcomes

for patients struggling with this challenging condition (Lynch et al., 2007). Subsequent clinical trials have further substantiated the efficacy of DBT, not only for BPD but also for addressing a broad spectrum of emotional dysregulation and associated cognitive and behavioral patterns, encompassing both under-control and over-control of emotions (Linehan, 2014).

Central to the theoretical underpinnings of DBT is a dialectical and biosocial perspective of psychological disorders, emphasizing the intricate interplay between biological predispositions and environmental factors in shaping emotion regulation difficulties and maladaptive behaviors (Linehan, 2014). Emotion dysregulation, a core feature of BPD and various other mental health issues, is conceptualized as stemming from instability in emotion regulation, impulse control, interpersonal relationships, and self-image (Linehan, 2014).

The overarching objective of DBT skills training is to empower individuals to effectuate meaningful change in their behavioral, emotional, cognitive, and interpersonal patterns that contribute to their distress and functional impairment (Linehan, 2014). Table 1 provides a concise overview of the skills imparted through DBT across different modules, encompassing crucial domains such as mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness (Linehan, 2014).

Through its multifaceted approach and evidence-based strategies, DBT offers individuals with BPD and related conditions a structured framework for cultivating adaptive coping skills, enhancing emotional resilience, fostering healthier relationships, and ultimately promoting a higher quality of life (Linehan, 2014). As DBT continues to evolve and garner empirical support, it remains a cornerstone in the treatment landscape

for individuals grappling with complex emotional and behavioral challenges (Lynch et al., 2007).

Mentalization-Based Therapy

Mentalization-Based Treatment (MBT) emerged in the 1990s through the collaborative efforts of Anthony Bateman and Peter Fonagy as a therapeutic approach rooted in the concept of mentalization (Bateman & Fonagy, 2016). Mentalization refers to the process through which individuals comprehend both themselves and others in terms of subjective states and mental processes, implicitly and explicitly (Bateman & Fonagy, 2010). Given that most mental disorders entail some degree of difficulty with mentalization, the mentalizing theory underlying MBT has broad applicability across various conditions and settings (Bateman & Fonagy, 2016).

While mentalization theory finds application in diverse clinical contexts, MBT is particularly well-established as a therapy for BPD, supported by robust empirical evidence from randomized controlled trials (Bateman & Fonagy, 2010). Drawing from Bowlby's attachment theory (Bowlby, 1969) and contemporary developmental psychology, MBT integrates insights into constitutional vulnerabilities to formulate an approach that addresses the core challenges faced by individuals with BPD (Bateman & Fonagy, 2010).

A key aspect of MBT involves stabilizing emotional expression as a precursor to enhancing mentalizing capacities (Bateman & Fonagy, 2010). Without effective regulation of affect, individuals may struggle to reflect meaningfully on their internal experiences (Bateman & Fonagy, 2016). Therefore, interventions within MBT aim to

restore or preserve mentalizing abilities, enabling individuals to navigate interpersonal interactions and internal states more effectively (Bateman & Fonagy, 2010).

One distinguishing feature of MBT is its permissive approach to interventions, which allows practitioners flexibility in selecting therapeutic strategies tailored to individual needs and circumstances (Bateman & Fonagy, 2016). This flexibility, coupled with the relatively minimal training requirements, contributes to the widespread adoption of MBT across different therapeutic modalities and practitioner backgrounds (Bateman & Fonagy, 2010).

Overall, MBT represents a versatile and empirically supported therapeutic approach that emphasizes the cultivation of mentalizing capacities to promote psychological well-being and relational functioning, particularly among individuals with complex and challenging clinical presentations such as BPD (Bateman & Fonagy, 2010). As research and clinical practice evolve, MBT remains an asset for addressing various mental health concerns.

Transference-focused Psychotherapy

Transference-Focused Psychotherapy (TFP) is a therapeutic approach that centers on the problematic interpersonal dynamics and intense emotional states experienced by patients, particularly those with borderline personality organization (Yeomans et al., 2019). At the core of TFP lies the exploration of the patient's inherent interpersonal patterns, which manifest in the therapeutic relationship through transference (Yeomans et al., 2019). By jointly examining these dynamics, therapists aim to resolve the splits between positive and negative representations that underlie affective instability and relational difficulties (Choi-Kain et al., 2017).

The change process in TFP revolves around helping patients develop more balanced, integrated, and coherent ways of understanding themselves and their relationships (Yeomans et al., 2019). This is achieved through a carefully structured therapeutic environment to reenact and observe the patient's split-off internalized object relations, often characterized by idealization and persecution (Stern & Yeomans, 2018). The treatment conditions in TFP include session frequency, patient instruction to engage in modified free association, and the therapist's stance, which emphasizes interpretation rather than guidance and support (Stern & Yeomans, 2018).

In TFP, the primary strategy involves facilitating the reactivation of split-off internalized object relations within the transference (Yeomans et al., 2019). This is accomplished through face-to-face sessions held at least twice weekly, where specific tactics are employed to address the evolving transference dynamics (Yeomans et al., 2019). These tactics include establishing a treatment contract, selecting priority themes for each session, balancing exploration of incompatible realities, and regulating the intensity of affective involvement (Kernberg, 2016).

The distinction between strategies, tactics, and techniques in TFP is crucial for understanding the overarching goals of treatment, the specific interventions employed during sessions, and the consistent application of technical instruments derived from psychoanalytic principles (Yeomans et al., 2019). By adhering to these principles and employing tailored interventions, TFP aims to foster meaningful change in individuals with borderline personality organization, ultimately promoting greater self-awareness and more adaptive interpersonal functioning (Kernberg, 2016).

Cognitive Behavioral Therapy

Cognitive Behavioral Therapy (CBT), a pivotal approach in contemporary psychotherapy, traces its origins to the work of Aaron T. Beck, in the 1960s. Beck's journey towards the development of CBT began with his investigation into depression (Beck et al., 1979). Through his clinical observations and research, he discerned a consistent pattern among individuals grappling with depression: a pervasive tendency towards negative self-perception, distorted interpretations of experiences, and bleak outlooks for the future (Beck et al., 1979).

Driven by a desire to alleviate the suffering of those afflicted by depression, Beck devised cognitive therapy, a structured therapeutic modality designed to pinpoint and repair dysfunctional cognitive patterns (Beck et al., 1979). Central to cognitive therapy was the notion that by identifying and challenging maladaptive thoughts, individuals could experience profound shifts in their emotional well-being and behavioral responses (Beck et al., 1979).

As Beck's work expanded, so did the scope of CBT. Over the ensuing decades, CBT evolved into a multifaceted therapeutic framework that seamlessly integrates cognitive restructuring techniques with behavioral interventions (Davidson et al., 2006). This holistic approach underscores the intricate interplay between thoughts, emotions, and behaviors, positing that modifying any one component can catalyze transformative changes across the others (Beck et al., 1979).

The core tenets of CBT emphasize collaboration and empowerment (Beck et al., 1979). Therapists and clients collaborate to cultivate practical skills for navigating life's challenges (Matusiewicz et al., 2010) Through targeted interventions, individuals learn to

identify cognitive distortions, challenge unhelpful beliefs, and cultivate adaptive coping strategies (Matusiewicz et al., 2010).

Beck's contributions revolutionized the landscape of psychotherapy, propelling CBT to the forefront of evidence-based practice. Today, CBT stands as a pillar of mental health treatment, offering effective solutions for a diverse array of psychological disorders, including anxiety disorders, mood disorders, personality disorders, and beyond. Beck's enduring legacy continues to inspire generations of clinicians and researchers, shaping the course of mental health care and fostering hope for millions worldwide (Matusiewicz et al., 2010).

Scheme-Focused Therapy

Schema-focused therapy (SFT) represents a comprehensive approach to addressing the deeply ingrained patterns of thought, emotion, and behavior characteristic of BPD (Kellogg & Young, 2006). Developed by Jeffrey E. Young in collaboration with other prominent clinicians, SFT combines elements of cognitive, behavioral, and experiential therapies to facilitate profound structural changes in a patient's personality (Choi-Kain et al., 2017).

Central to SFT is the cultivation of a therapeutic relationship characterized by trust, empathy, and attunement, which parallels the concept of "limited re-parenting," (Young et al., 2003). Through twice-weekly individual therapy sessions, clinicians employ an array of techniques designed to foster attachment and promote healing (Young et al., 2003). Key schema modes targeted in SFT include the detached protector, punitive parent, abandoned/abused child, and angry/impulsive child, each representing different facets of the patient's psychological makeup (Choi-Kain et al., 2017).

Cognitive techniques form a cornerstone of schema therapy, serving dual purposes of education and cognitive restructuring (Young et al., 2003). Patients receive education about their fundamental needs and emotions, learning to recognize and address core emotional vulnerabilities (Young et al., 2003). By challenging maladaptive beliefs and replacing them with healthier alternatives, patients gradually dismantle dysfunctional schemas that have long dictated their lives (Choi-Kain et al., 2017).

The therapeutic process unfolds across three distinct phases, each targeting specific goals and interventions tailored to the patient's evolving needs (Kellogg & Young, 2006). In the bonding and emotional regulation phase, the focus is on establishing a secure therapeutic alliance and cultivating emotional resilience (Young et al., 2003). Techniques for processing anger, such as ventilation, empathic validation, reality testing, and assertiveness rehearsal, empower patients to navigate interpersonal conflicts constructively (Kellogg & Young, 2006).

As therapy progresses into the schema mode change phase, attention shifts towards addressing entrenched schema modes and promoting internal transformation (Young et al., 2003). Through a combination of experiential exercises, imagery work, and dialogue, patients confront and challenge deeply ingrained patterns of thinking and behaving, paving the way for profound psychological shifts (Kellogg & Young, 2006).

In the final phase of treatment, the emphasis expands to fostering autonomy and self-reliance beyond the therapy setting (Young et al., 2003). Patients are encouraged to apply newfound insights and skills to real-world scenarios, particularly in the realms of interpersonal relationships and identity development (Young et al., 2003). This phase

marks the culmination of the therapeutic journey, as patients emerge with enhanced resilience and a strengthened sense of self (Kellogg & Young, 2006).

In essence, schema-focused therapy offers a comprehensive roadmap for individuals with BPD to embark on a journey of self-discovery, healing, and personal growth (Kellogg & Young, 2006). By addressing the root causes of their distress and empowering them to cultivate healthier ways of relating to themselves and others, SFT holds the promise of lasting transformation and renewed hope for those grappling with BPD (Kellogg & Young, 2006).

Psychopharmacology

The use of psychotropic drugs in the treatment of borderline personality disorder (BPD) remains a subject of debate and scrutiny within the mental health community (Friedel, 2012). While psychotropics such as antidepressants, antipsychotics, and mood stabilizers are often employed as adjunctive therapies, their efficacy in addressing core BPD psychopathology remains uncertain (Friedel, 2012). Compounding this uncertainty is the absence of any approved drug specifically for BPD in Europe and the United States, leading to inconsistent clinical guidelines and recommendations (Timäus et al., 2019).

A study conducted by Timäus et al., (2019) shed light on the patterns of psychotropic drug use among individuals with BPD over two distinct time periods. Their findings revealed a significant increase in psychotropic drug utilization between 2008 and 2012 compared to an earlier cohort treated from 1996 to 2004 (Timäus et al., 2019). Notably, nearly every BPD inpatient in the 2008-2012 cohort received at least one

psychotropic drug upon discharge, reflecting a pervasive reliance on pharmacological interventions within clinical settings (Timäus et al., 2019).

Despite the widespread use of psychotropics, the study also highlighted shifts in prescription patterns over time. There was a noticeable decline in the prescription rates of tricyclic/tetracyclic antidepressants and low-potency antipsychotics, possibly reflecting evolving treatment practices and preferences (Timäus et al., 2019). Conversely, there was a sustained high usage of second-generation antidepressants, including selective serotonin reuptake inhibitors (SSRIs) and atypical antidepressants like mirtazapine, indicating their continued relevance in BPD management (Timäus et al., 2019).

Second-generation antipsychotics emerged as a growing area of interest in both research studies and clinical practice, reflecting efforts to explore alternative pharmacological approaches for BPD treatment (Timäus et al., 2019). However, the evidence supporting their efficacy in BPD remains limited and warrants further investigation (Timäus et al., 2019). Similarly, the declining use of mood stabilizers aligns with the tenuous evidence base for their effectiveness in addressing BPD symptoms, highlighting the need for more targeted and evidence-based pharmacological interventions (Timäus et al., 2019).

Overall, while psychotropic drugs play a role in the comprehensive treatment approach for BPD, their use should be carefully considered in conjunction with other therapeutic modalities (Friedel, 2012). As ongoing research seeks to elucidate the optimal pharmacological strategies for BPD management, clinicians must remain vigilant in evaluating the risks and benefits of psychotropic interventions and tailor treatment plans to individual patient needs (Friedel, 2012).

DSM-5 Alternative Model of Personality Disorders

Development of the Alternative Model

As empirical scrutiny has increased, it has become increasingly evident that the categorical model of personality disorder (PD) diagnosis poses several problematic issues (Kruger, 2019). These issues include high rates of diagnostic comorbidity, arbitrary diagnostic thresholds, and the frequent use of the "not otherwise specified" (NOS) label, which fails to specify a particular personality dysfunction (Krueger, 2019).

Recognizing these limitations, the DSM-5 Personality and Personality Disorder Work Group initially proposed a comprehensive revision of the personality disorder diagnostic system (Kruger, 2019). This revised system would incorporate two-dimensional aspects: a severity continuum assessing deficits in self and interpersonal functioning (referred to as "criterion A") and pathological personality traits comprising 25 facets across five trait domains (referred to as "criterion B"; Widiger & Hines, 2022). Six specific personality disorder categories were proposed to be retained, including Antisocial, Borderline, Avoidant, Narcissistic, Obsessive-Compulsive, Schizotypal, and Personality Disorder-Trait Specified (PD-TS) to replace PD-NOS (APA, 2013).

Under this proposed system, diagnosis using the Alternative Model for Personality Disorders (AMPD) requires meeting seven general criteria for PD (APA, 2012. Criterion A assesses disturbances in self-functioning (identity and self-direction) and interpersonal functioning (empathy and intimacy with others), while Criterion B evaluates 25 pathological personality trait facets organized into five trait domains (APA, 2013). Additional criteria include inflexibility (Criterion C), stability across time (Criterion D), absence of better explanation by another mental disorder (Criterion E),

absence of explanation by substance or medical conditions (Criterion F), and non-normativeness for the person's developmental stage or sociocultural environment (Criterion G; APA, 2013).

The AMPD offers several advantages over the traditional categorical model. It underscores self- and interpersonal impairment as core features of PD, distinguishes PD from other psychopathologies like depression and anxiety, and provides opportunities for theoretical and treatment integration (Krueger, 2019).

However, ongoing discussions involve modifications to this model. Herpertz et al. (2017) and Waugh et al. (2017) discussed a modified version of the AMPD currently under consideration for the Personality Disorders and Related Traits section of the International Classification of Diseases, Eleventh Revision (ICD-11). This modified model removes the self and interpersonal dimensions altogether, replacing them with a unitary severity rating (mild/moderate/severe; Mulay et al., 2019). This shift reflects ongoing efforts to refine and improve the diagnostic criteria for personality disorders, aiming for greater clarity and effectiveness in clinical practice (Mulay et al., 2019).

Breakdown of the Model

Criterion A, as defined in the DSM-5 Levels of Personality Functioning Scale (LPFS), serves as a comprehensive framework for understanding personality disorder (PD) by delineating dysfunction across two fundamental areas: intrapersonal (self) and interpersonal (other) functioning (Waugh et al., 2017). These domains, encompassing constructs of identity, self-directedness, empathy, and intimacy, are crucial components of an individual's psychological makeup and interpersonal relationships (Bender et al., 2011). The LPFS, through its structured assessment of manifestations across levels of

impairment, facilitates the characterization of PD severity in individual patients (APA, 2013). Importantly, Criterion A integrates key structural elements, developmental processes, and personality dynamics derived from contemporary psychodynamic, attachment, interpersonal, and social-cognitive theories of personality and psychopathology (Waugh et al., 2017).

Further reviewing the dysfunction fundamental areas, self and interpersonal, it is important to understand the constructs that fall within these domains (Morey et al., 2022). Under the domain of self, identity is defined as the experience of oneself as unique, with clear boundaries between self and others, stability of self-esteem and accuracy of self-appraisal, and capacity for and ability to regulate a range of emotional experiences (Hummelen et al., 2020). Self-direction is defined as pursuing coherent and meaningful short-term and life goals, utilizing constructive and prosocial internal standards of behavior, and being able to self-reflect productively (Hummelen et al., 2020). The interpersonal domain is broken up into empathy and intimacy (Morey et al., 2022). Empathy is defined as comprehension and appreciation of others' experiences and motivations, tolerance of differing perspectives, and understanding of the effects of one's own behavior on others (Hummelen et al., 2020). Intimacy is the depth and duration of positive connections with others, desire and capacity for closeness, and mutuality of regard reflected in interpersonal behavior (Hummelen et al., 2020).

Criterion A, operationalized through five levels of impairment ranging from minimal to extreme, plays a pivotal role in the diagnosis and understanding of PDs (Bender et al., 2011). Research has indicated acceptable interrater reliability in applying the LPFS, with improvements observed with targeted training and precise assessment of

information relevant to Criterion A (Zimmermann et al., 2019). Additionally, Criterion A demonstrates criterion validity by reliably predicting the presence and number of PD diagnoses across diverse samples (Few et al., 2013; Morey et al., 2013). Notably, an LPFS score indicating at least moderate impairment has shown high sensitivity and specificity in identifying patients meeting PD diagnostic criteria and predicting functional impairment (Morey et al., 2014).

In contrast, Criterion B focuses on assessing maladaptive personality traits, drawing primarily from Five Factor personality models and Personality Psychopathology Five (PSY-5) scales of the MMPI (Waugh et al., 2017). These traits, which are organized into domains such as Negative Affectivity, Detachment, Antagonism, Disinhibition, and Psychoticism, represent dimensions of personality pathology that contribute to the overall presentation of PD (Thomas et al., 2013; Harkness et al., 2014).

The domain of Negative affectivity vs. Emotional lability consists of emotional lability, anxiousness, separation insecurity, submissiveness, hostility, perseveration, depressivity, suspiciousness, and restricted affectivity facets. Detachment vs Extraversion comprises withdrawal, intimacy avoidance, anhedonia, depressivity, restricted affectivity, and suspiciousness facets (APA, 2022). Antagonism vs Agreeableness contains the manipulativeness, deceitfulness, grandiosity, attention seeking, callousness, and hostility facets (APA, 2022). Irresponsibility, impulsivity, distractibility. risk-taking, and rigid perfectionism (lack of) are facets under the Disinhibition vs Conscientiousness domains (APA, 2022). While unusual beliefs and experiences, eccentricity, and cognitive and perceptual dysregulation are facets of the Psychoticism vs Lucidity domains (APA, 2022).

While Criteria A and B represent distinct facets of personality pathology, some scholars argue that they reflect socially undesirable traits from differing theoretical perspectives, leading to a high degree of correlation between their measures (Waugh et al., 2017). Despite these overlaps, AMPD Criterion B has been perceived as more clinically helpful than the categorical DSM-IV PD system, owing to its comprehensive nature and utility in treatment planning (Morey et al., 2013). Although initial concerns were raised about the complexity of a dimensional model, recent studies suggest that dimensional personality models, including AMPD criteria, are rated as more clinically useful than traditional PD categories (Bornstein & Natoli, 2019). Moreover, while Criterion A was initially perceived as less user-friendly, subsequent research demonstrates its feasibility and reliability with minimal training, supporting its integration into clinical practice (Few et al., 2013; Zimmermann et al., 2014).

The Model and BPD

Given the nuanced nature of borderline personality disorder (BPD) and the recognition that it exists along a continuum rather than as a discrete category, researchers have delved into identifying the underlying dimensions that underpin its symptoms and traits (Zimmermann et al., 2019). However, arriving at a consensus regarding the primary dimensions of BPD pathology has proven challenging due to methodological variations across studies and the complex interplay of symptoms and traits associated with the disorder (Trull et al., 2010).

Affective dysregulation/affective instability, impulsivity/behavioral dysregulation, and interpersonal hypersensitivity are among the dimensions that consistently emerge in investigations into BPD pathology (Trull et al., 2010). These dimensions are often

observed across various measures used to assess BPD, suggesting a gradient between normal personality traits and pathological manifestations (Trull et al., 2010). This gradient underscores disruptions in emotional stability, interpersonal interactions, and self-regulation or constraint, which are hallmark features of BPD (Trull et al., 2010).

The diagnostic criteria for BPD outlined in the DSM-5 involve a multi-step process aimed at capturing the heterogeneity and complexity of the disorder (Trull et al., 2010). The first step entails assigning a "type rating" based on how closely the patient matches the narrative description of BPD, with ratings ranging from 1 to 5 (Zimmermann et al., 2019). However, guidelines for using this scale are minimal, and differentiating between "prominent features" and "significantly resembles" remains unclear (Zimmermann et al., 2019). The second step involves rating 10 primary traits across four domains, with negative emotionality carrying more weight (Widiger & Trull, 2007). The third step rates self- and interpersonal functioning using a five-point scale across several areas, aiming to assess long-term functioning while considering other mental or physical conditions and cultural norms (Widiger & Trull, 2007).

Putting the model into practice with BPD, a possible diagnostic path could look like Criterion A, impairment in the self, would look like a poor self-image, excessive self-criticism, and empty feeling (APA, 2022). While impairment in interpersonal would look like low empathy and intense/unstable close relationships (APA, 2022). A personality profile for BPD with needing 4 out of 7 traits to be met, with at least one being impulsivity, risk-taking, or hostility, would have traits within three domains (APA, 2022). The domain of Negative Affectivity for a BPD diagnosis would have emotional lability, anxiousness, separation insecurity, and depressivity traits. Antagonism would

have the hostility trait represented in this population, and the domain disinhibition would have impulsivity and risk-taking traits represented (APA, 2022).

While the DSM-5 proposal provides a structured approach to diagnosis, several concerns persist (Monaghan & Bizumic, 2023). The dense definitions of self- and interpersonal dysfunction, often steeped in psychodynamic language, may pose challenges for clinicians, particularly those with biological or cognitive-behavioral orientations (Monaghan & Bizumic, 2023). Moreover, the prototype matching approach has flaws, including subjectivity in ratings and an unclear hierarchy of features (Monaghan & Bizumic, 2023). Additionally, the threshold for impairment appears low, and the feasibility of making reliable ratings based on a single intake session is uncertain (Monaghan & Bizumic, 2023).

Research comparing Section II and Section III operationalizations of BPD has yielded valuable insights into their construct validity and clinical utility (Anderson et al., 2016). Studies have demonstrated that both Section II and Section III BPD operationalizations exhibit similar associations with external criteria, supporting the potential superiority of the dimensional trait model over the categorical diagnostic method (Anderson et al., 2016). Furthermore, substantial overlap exists between the latent representations of Section II and Section III BPD constructs, suggesting that the trait-based Section III model effectively captures the variance in traditional BPD concepts (Sellbom et al., 2014).

Further research has explored the relationship between categorical BPD criteria and trait dimensions in DSM-5 Section III, finding coherence between most categorical criteria and related trait dimensions (Bach & Sellbom, 2016). Notably, Suspiciousness

emerged as a strong predictor of BPD, alongside other trait dimensions such as Emotional Lability and Impulsivity (Bach & Sellbom, 2016).

In summary, the dimensional approach to understanding BPD offers a nuanced perspective that aligns with the disorder's complex nature (Sellbom et al., 2014). While challenges remain in implementing dimensional assessments, ongoing research aims to refine and validate trait profiles for BPD diagnosis, potentially improving diagnostic accuracy and treatment planning for individuals with BPD pathology (Monaghan & Bizumic, 2023). This evolving understanding of BPD underscores the importance of considering its multidimensional nature in clinical practice and research endeavors.

Assessment Development for the AMPD

In the attempt to comprehensively understand personality pathology, particularly within the framework of the AMPD in DSM-5, researchers have developed various assessment tools aimed at capturing the multifaceted nature of maladaptive personality traits (APA, 2022). Among these tools, the Level of Personality Functioning Scale (LPFS) was created to represent Criterion A (APA, 2013; Morey et al., 2022)). The Personality Inventory for DSM-5 (PID-5; Krueger et al., 2012) and the Comprehensive Assessment of Traits Relevant to Personality Disorders (CAT-PD; Simms et al., 2011) were created to represent Criterion B.

To evaluate Criterion A, the DSM–5 AMPD introduces the Level of Personality Functioning Scale (LPFS; APA, 2013), a crucial tool for assessing the severity of impairment in capacities related to self and interpersonal functioning. The LPFS (APA, 2013) serves as a versatile instrument intended for clinical use, facilitating a comprehensive assessment of core impairments in self-other functioning and yielding a

single-item composite rating. This clinician-rated single-item severity rating ranges from 0 (indicating little to no impairment) to 4 (indicating extreme impairment), providing a dimensional model that covers the entire spectrum of adaptive and maladaptive personality traits (APA, 2013). Consequently, the LPFS is not restricted to individuals with disorders but can be applied to all individuals, offering valuable insights into both healthy and unhealthy personality functioning (Morey et al., 2015).

In a study utilizing case vignettes to assess reliability, Morey (2019) found an intraclass correlation coefficient (ICC) of .503 for the clinician-rated LPFS rating, which exceeded the ICC value obtained for the DSM-IV categorical diagnosis of borderline PD (.392). Similarly, Few et al. (2013) conducted a study where trained graduate students provided double-entry ICC values for the four component scores of the LPFS: Identity (.49), Self-Direction (.47), Empathy (.49), and Intimacy (.47). Additionally, Garcia et al. (2018) had advanced clinical psychology doctoral students rate case vignettes using the LPFS, revealing a single-rater ICC value of .81 for the global LPFS rating. These findings indicate that clinicians can reliably rate the LPFS, even without significant prior exposure to the alternative diagnostic model (Morey et al., 202).

The inaugural examination of the validity of the published DSM–5 AMPD LPFS was undertaken by Morey et al. (2013). In this study, a large national sample of mental health clinicians provided DSM-IV and proposed DSM–5 (i.e., AMPD) diagnostic information for one of their clients, along with other clinical assessments (Morey et al., 2013). An LPFS global rating indicating "moderate" impairment or higher (Level 2þ) exhibited 84.6% sensitivity and 72.7% specificity in identifying clients meeting the criteria for a specific DSM-IV PD (Morey et al., 2013). Moreover, the single-item LPFS

correlated significantly with other indicators of personality pathology, as well as clinical judgments concerning functioning, risk of self-harm or violence, prognosis, and optimal treatment intensity (Morey et al., 2013). Additionally, the LPFS emerged as a superior predictor of clinician-rated general psychosocial functioning compared to the collective 10 DSM-IV categories.

Few et al. (2013) investigated correlations between component ratings of the LPFS, completed by trained graduate students, and measures of emotional distress (anxiety, depression, and global symptom severity) and personality impairment (such as the sum of DSM-IV PD symptoms and individual DSM-IV PD diagnoses). All four component ratings showed significant correlations (*r* values) with measures of emotional distress (Few et al., 2013). The correlations ranged from .27 (Empathy) to .56 (Identity) for anxiety, .36 (Empathy) to .61 (Identity) for depression, and .42 (Empathy) to .72 (Identity) for global symptom severity (Few et al., 2013). Busmann et al. (2019) also found several significant correlations between the LPFS component ratings and individual DSM-IV PD diagnoses, as well as multiple indicators of psychiatric severity. Additionally, higher scores on the Identity and Self-Direction component ratings were significantly predictive of inpatient treatment dropout (Busmann et al., 2019).

In response to concerns regarding the potential complexity of the LPFS for clinician use, as previously highlighted (Clarkin & Huprich, 2011; Pilkonis et al., 2011), researchers have sought feedback from clinicians regarding its comprehensiveness, usefulness, and ease of use in case conceptualization, treatment planning, and communication (Garcia et al., 2018; Morey et al., 2014). Morey et al. (2014) surveyed a large national sample of mental health professionals, asking them to assess the clinical

utility of both DSM-IV-TR and DSM–5 AMPD LPFS diagnostic criteria. Despite limited exposure to the DSM–5 AMPD, clinicians rated the DSM–5 LPFS as equally comprehensive and useful for treatment planning and describing an individual's global personality as the DSM-IV-TR categorical diagnostic system (Morey et al., 2014). Garcia et al. (2018) extended these findings to a sample of advanced psychology doctoral students, also with limited exposure to the DSM–5 AMPD, who perceived strong clinical utility in the model, particularly for formulating interventions, characterizing clients' global personalities, and communicating with other mental health providers. Both studies provide evidence supporting the clinical utility of the DSM–5 AMPD LPFS, indicating that it is easily learned by relatively inexperienced raters and offers practical and useful information for clinical practice (Morey et al., 2013; Garcia et al., 2018). Taken together, reliability studies (Zimmermann et al., 2014; Preti et al., 2018; Morey, 2018; Roche et al., 2018) suggest that untrained raters with limited clinical experience can provide ratings on the LPFS with a considerable degree of reliability. This finding counters notions regarding the model's complexity and difficulty of use (Morey et al., 2022).

In addition to assessing reliability among laypersons, several studies (Preti et al., 2018; Morey, 2018; Roche et al., 2018) have explored the relationships between lay ratings of the LPFS and various relevant external criteria. For example, Zimmermann et al. (2014) discovered that LPFS ratings by undergraduate students significantly distinguished between target clients with and without PD diagnosis. Additionally, these ratings were positively correlated with the number of PD diagnoses (Zimmermann et al., 2014).

The LPFS has exhibited reliability across a broad spectrum of raters, from seasoned professionals to novices, and has displayed robust validity through its correlations with pertinent criterion variables (Morey et al., 2022). Furthermore, its predictive and clinical utility have been established, reinforcing its credibility and value in personality assessment (Morey et al., 2022).

The PID-5 emerged from the collaborative efforts of the DSM-5 Work Group, which sought to identify clinically relevant constructs prevalent in individuals with personality dysfunctions (Krueger et al., 2012). Initially consisting of 37 facets, subsequent analyses refined the PID-5 to 25 facets, encompassing a broad array of maladaptive traits such as Anhedonia, Anxiousness, and Hostility (Krueger et al., 2012). These traits are organized into five overarching trait domains: Negative Affectivity, Antagonism, Disinhibition, Psychoticism, and Detachment (Krueger et al., 2012).

Recognizing the importance of detecting response inconsistencies and symptom overreporting, researchers have augmented the PID-5 with additional scales (Keely et al., 2016; Sellbom et al., 2018). Keely et al. (2016) devised an inconsistency scale to identify pairs of items with similar content but non-redundant correlations. Sellbom et al. (2018) developed an overreporting scale using PID-5 items, demonstrating its utility in distinguishing genuine symptomatology from exaggerated responses.

While the PID-5 represents a significant advancement in trait assessment, limitations persist, particularly in delineating the lower-order structure of personality pathology. In response, the CAT-PD was developed (Simms et al., 2011). Accumulating evidence has exposed significant flaws within the current categorical framework underpinning PD description in DSM-IV.

Adopting a dimensional model of the traits underlying personality pathology has been proposed as a means to mitigate many of these issues. In response, Simms et al. (2011) initiated the CAT-PD project with two intertwined objectives: (a) to identify a comprehensive and cohesive set of higher- and lower-order personality traits relevant to personality pathology, and (b) to develop a computerized system, employing adaptive testing principles, to efficiently measure these resultant traits. Alongside these primary aims, Simms et al. (2011) sought for the CAT-PD model and measure to potentially enhance PD research and clinical practice in several ways, including (a) furnishing a foundation for more elaborate etiological and treatment models of PD, (b) refining our comprehension of the higher- and lower-order structure of PD-relevant personality traits, and (c) furnishing a flexible and all-encompassing basis for clinical personality profile analyses.

The creation of the CAT-PD encompassed five distinct phases. Firstly, Phase 1 involved the identification of all conceivable candidate traits for assessment and the subsequent development of the initial item pool (Simms et al., 2011). Following this, Phase 2 comprised data collection from community members and patients, followed by the iterative process of scale development and refinement (Simms et al., 2011). Phase 3 saw the calibration of the final item sets utilizing item response theory (IRT) and computerized adaptive testing (CAT) simulation studies, aiming to optimize the organization and administration of the CAT-PD (Simms et al., 2011). Subsequently, Phase 4 entailed the development of the CAT-PD software (Simms et al., 2011). Finally, Phase 5 focused on the construct validation of the finalized CAT-PD test and software (Simms et al., 2011).

Widiger and Simonsen (2005; 2006) laid the groundwork by creating a comprehensive summary of 18-dimensional models of PD-relevant traits. Building upon this foundation, Simms et al. (2011) decided to structure their construct development efforts around tapping into each of these lower-order dimensions. Initially, they streamlined their approach by sorting and merging traits to eliminate redundancies within the list. Subsequently, they conducted an extensive review of literature pertinent to each candidate trait dimension and existing models and PD measures to refine the list further and formulate operational definitions for each trait (Simms et al., 2011). Their aim was to craft operational definitions that captured all central aspects of each trait, thereby embedding content validity into the definitions (Simms et al., 2011). This meticulous process yielded an initial list of 53 candidate traits, organized into five broad domains resembling those proposed by Widiger and Simonsen (2005; 2006): (a) Negative Emotionality, (b) Positive Emotionality, (c) Antagonism, (d) (Dis)constraint, and (e) Oddity (Simms et al., 2011).

Simms et al. (2011) initiated the CAT-PD project by leveraging the International Personality Item Pool (IPIP), a comprehensive and publicly available repository of 2,413 personality items established by Goldberg (1999) and expanded upon by Goldberg et al. (2006). Through an iterative selection process, 1,570 IPIP items were chosen, supplemented by 1,019 items created by the research team, to form the initial item pool for the CAT-PD. Consequently, the CAT-PD initial item pool comprised a total of 2,589 items earmarked for employment in the first phase of data collection and scale development. To ensure consistency with prior research employing the IPIP, Simms et al.

(2011) opted for a modified five-point response format for the CAT-PD, ranging from "very untrue of me" to "very true of me."

Following the culmination of the developmental phases, Simms (2013) introduced the most prevalent iteration of the CAT-PD: the 216-item static form. This version assesses 33 traits and has garnered substantial evidence of reliability and validity. Additionally, an expanded form comprising 246 items was developed, featuring three validity scales tailored to evaluate inconsistent responding, over-reporting, and under-reporting (Simms, 2013).

The CAT-PD offers flexibility in administration, and its comprehensive coverage of various models of personality pathology, including those with a five-factor structure and Anankastia as a separate domain, enhances its utility in clinical practice and research settings (Ringwald et al., 2023). Moreover, studies have demonstrated the CAT-PD's predictive validity for clinical outcomes and interpersonal problems, surpassing that of the PID-5 (Yalch & Hopwood, 2016; Williams & Simms, 2016).

Of note, research indicates that the CAT-PD exhibits better discriminant validity at the domain level compared to the PID-5, with its domain structures remaining invariant across demographic groups (Yalch & Hopwood, 2016). This suggests that the CAT-PD may offer a more nuanced understanding of personality pathology while minimizing biases associated with demographic factors (Ringwald et al., 2023).

In summary, the PID-5 and CAT-PD represent significant strides in personality trait assessment, providing clinicians and researchers with valuable tools for evaluating maladaptive traits within the AMPD framework (Ringwald et al., 2023). As research in this area continues to evolve, ongoing efforts to refine and validate these assessment

instruments will contribute to a deeper understanding of personality pathology and inform more effective interventions (Keely et al., 2016; Sellbom et al., 2018).

Clinical Utility

Clinical utility, a vital aspect of any diagnostic framework, encompasses its practical application in clinical settings and effectiveness in guiding treatment decisions (Bach & Tracy, 2022). This utility is evaluated across multiple dimensions, including communication value, ease of implementation, and usefulness in treatment planning and intervention (First et al., 2004; Reed, 2010; Mullins-Sweatt et al., 2016).

A systematic review by Milinkovic and Tiliopoulos (2020) assessed the clinical utility of the AMPD across various populations and clinician levels. Findings from 20 relevant studies indicated favorable communication value among clinicians and patients, high diagnostic accuracy, and facilitation of appropriate intervention selection and clinical decision-making (Milinkovic & Tiliopoulos, 2020). Clinical case examples provided by Skodol et al. (2014) and Pincus et al. (2016) demonstrated how the AMPD profile can differentiate personality pathology from mood disorders and inform treatment planning, particularly in the initial phases of psychotherapy.

However, while the AMPD shows promise in guiding treatment planning, its utility throughout treatment remains less understood (Bliton et al., 2022). Changes in AMPD diagnostic profiles and personality expression during treatment present challenges, especially in individuals diagnosed with BPD, who often cycle through multiple therapists (Bliton et al., 2022).

Criterion A severity and Criterion B style within the AMPD framework have significant implications for treatment planning and intervention implementation (Bliton et

al., 2022). Understanding a patient's overall severity informs clinical decision-making regarding session structure, identification of relational patterns, and flexibility in responding to acute distress, while the patient's style directs intervention adaptation and delivery (Bliton et al., 2022).

Gamache et al. (2021) identified four AMPD profiles for BPD, ranging from borderline traits to severe pathology, with variations in Criterion A identity and Criterion B depressivity, impulsivity, and risk-taking distinguishing profiles. Investigating BPD through the AMPD lens offers important insights into case conceptualization and treatment planning, given the substantial treatment resource utilization by individuals with BPD (Ansell et al., 2007).

Bliton et al. (2022) highlighted the utility of the AMPD framework in clinical practice through two clinical cases. By assessing patients' diagnostic profiles with the AMPD framework over the course of psychodynamic psychotherapy, they demonstrated its effectiveness in understanding improvements, guiding treatment planning, and accounting for distinct presentations of BPD pathology (Bliton et al., 2022). The AMPD facilitated easy implementation, allowing clinicians to create rich clinical profiles with minimal time and cost, thus aiding the transition between therapists for patients cycling through treatment (Bliton et al., 2022).

In conclusion, the AMPD shows promise in enhancing clinical utility by providing a comprehensive framework for understanding personality pathology, guiding treatment planning, and facilitating communication among clinicians and patients (Bach & Tracy, 2022). Further research is needed to explore its longitudinal utility and

effectiveness across various treatment modalities and clinical populations (Bach & Tracy, 2022).

Issues & Controversies

The Alternative Model for Personality Disorders (AMPD) faced challenges in gaining approval due to several unresolved questions and issues, as discussed by Widiger and Hines (2022). While they presented eight questions for research focus, six key ones are highlighted here (Widiger & Hines, 2022).

First, research has predominantly focused on the convergence between the DSM-5 AMPD and the DSM-IV, neglecting to explore potential improvements in construct validity and clinical utility (Widiger & Hines, 2022). For instance, while Wygant et al. (2016) demonstrated improved coverage of psychopathy by the DSM-5 Section III AMPD, McCabe and Widiger (2020) suggested no discernible improvement in discriminant validity.

Secondly, although Milinkovic and Tiliopoulos (2020) found overall support for the AMPD's clinical utility, further research is needed, especially regarding communication with patients' families, the feasibility of the application, and treatment planning.

Another critical question is regarding the treatment implications of the AMPD. While clinicians indicate a preference for dimensional trait models over categorical syndromes, empirically validated therapies are lacking for most components of the AMPD, including four of the five trait domains and the Level of Personality Functioning (LPF; Widiger & Hines, 2022).

Research is also exploring whether the LPF constitutes a unitary construct, given its four components: identity, self-directedness, intimacy, and empathy (Widiger & Hines, 2022). However, existing studies indicate a need for more discriminant validity for these components (Widiger & Hines, 2022).

Furthermore, there's debate over whether the LPF defines the core of personality disorder and whether LPF deficits are evident across all syndromes (Widiger & Hines, 2022). While some studies suggest LPF impairments define the core, others find inconsistencies, particularly in the case of BPD criteria (Widiger & Hines, 2022).

Additionally, there's uncertainty regarding the necessity of the LPF within the AMPD (Widiger & Hines, 2022). While it represents an intrapsychic system distinct from traits or behaviors, many LPF components overlap with personality traits or DSM-IV diagnostic criteria (Sharp & Wall, 2021).

Despite these challenges, research suggests the AMPD's positive reception and trainability (Skodol et al., 2014). Studies show the ability of untrained individuals to reliably differentiate between levels of severity and rate personality functioning (Skodol et al., 2014). However, further training and familiarity with the model among clinicians are needed to assess its full utility in clinical practice (Skodol et al., 2014).

In conclusion, addressing these unresolved questions and issues is crucial for the successful transition to an empirically based, pantheoretical model of personality disorder classification, aligning with the long-standing goal of psychiatric nomenclature (Widiger & Hines, 2022).

Future Directions

Criteria A and B of the AMPD have emerged as a psychometrically robust and clinically beneficial alternative to the traditional categorical diagnosis of personality disorders (PD; Waugh et al., 2017). Clinical experience and empirical evidence have highlighted the limitations of the categorical approach, including diagnostic comorbidity, arbitrary thresholds, heterogeneity within PD categories, and overreliance on the NOS label (Widiger & Hines, 2022). Despite these challenges, the AMPD offers a promising solution, providing a comprehensive framework for understanding personality pathology (Waugh et al., 2017).

Future research should continue to assess the psychometric properties of Criteria A and B across various settings to encourage the adoption of this emerging diagnostic model (Morey et al., 2022). Additionally, examining the real-time use of the AMPD in healthcare settings and clinicians' reactions to its implementation would provide valuable insights into its feasibility and effectiveness in clinical practice (Vanwoerden & Stepp, 2022). Furthermore, the development of validity scales for Criteria A and B measures would enhance their utility in broader contexts, such as forensic evaluations (Nysaeter et al., 2022).

The hierarchical nature of the AMPD allows for a flexible and adaptive approach to assessment based on situational demands (Waugh et al., 2017). For instance, in acute settings, assessing PD severity may be sufficient, while a more comprehensive trait-level analysis may be needed to fully understand the nature of the patient's issues (Bliton et al., 2022). This stepped approach guides treatment toward addressing specific traits or facets

rather than relying on categorical labels, thereby promoting personalized interventions tailored to individual needs (Skodol et al., 2015).

An important area for future research is matching clinician-based ratings with real-world impairment estimates and linking dimensional PD severity to prognosis, support requirements, and treatment responsiveness (Skodol et al., 2015). Additionally, understanding the management of individuals on the border of two severity categories and investigating the potential benefits of dimensional approaches in reducing stigma and promoting more inclusive attitudes toward PD are essential avenues for further exploration (Monaghan & Bizumic, 2023).

In terms of nomenclature, there is a proposal within the community to rename PD as "Interpersonal Disorders," shifting the focus from the individual to their difficulties and reducing the likelihood of stigma and self-identification with the disorder (Widiger & Hines, 2022). However, ongoing research is needed to determine how symptoms not directly related to interpersonal distress fit within broader psychopathological frameworks (Widiger & Hines, 2022).

Overall, the dimensional model offers an evidence-based framework for understanding personality pathology and provides the potential for effective personalized treatment. With growing evidence supporting its utility and effectiveness, research efforts should focus on bridging the gap between research and practice and ensuring that future developments are consumer-led or consumer-informed (Hopwood et al., 2017).

Section III: Original Contribution to Research

Introduction to Research

With the field discussing the transition towards dimensional models, the significance of the Computerized Adapted Test of Personality Disorder **(**CAT-PD) emerges, offering a robust psychometric approach through item response theory and computerized adaptive testing (Simms et al., 2011). In this study, the author analyzed the CAT-PD proposed seven traits representing borderline personality disorder (BPD) on the AMPD to explore whether additional traits from the CAT-PD could enhance the model's incremental validity. The CAT-PD encompasses most DSM Section III AMPD traits and adds 10 more to capture a broader personality trait spectrum (Simms et al., 2011). Moreover, the CAT-PD conceptually aligns with other major dimensional models of personality disorder, such as the Personality Inventory for DSM-5 (PID-5), as noted by Wright and Simms (2014).

To achieve this objective, the study utilized 3 measures of BPD symptoms, including the Personality Assessment Inventory Borderline scale (PAI BOR; Morey, 1991), Zanarini Rating Scale for Borderline Personality Disorder (ZAN; Zanarini et al., 2015), and Personality Diagnostic Questionnaire-4 borderline personality disorder scale (PDQ-4 BPD; Hyper, 1994), alongside a composite score of all three measures. The CAT-PD trait scales were utilized as the measure of the AMPD. The current AMPD traits selected for BPD were examined, along with additional traits, including manipulativeness, mistrust, emotional detachment, anger, self-harm, exhibitionism, and fantasy proneness, to capture additional elements of the construct.

A thorough review of CAT-PD scales was conducted to select those that could supplement the existing seven in capturing the specified BPD criteria. Subsequently, zero-order correlation analyses were performed between the original seven CAT-PD scales (and selected supplementary scales) and the four criterion variables noted above (Simms et al., 2011). Furthermore, linear regression analyses were carried out, entering the original seven CAT-PD scales into the regression equation to predict each BPD criterion. The additional CAT-PD scales were then introduced to assess incremental validity. Finally, beta weights for the CAT-PD scales in the regression equation with all variables entered were examined to determine the unique variance captured by each variable.

Additionally, the additional CAT-PD traits were rigorously selected based on their direct relevance to clinical constructs, with Pearson's *r* correlation matrix examined to understand the interrelationships among these traits. Employing a hierarchical format, the regression models first integrated DSM-5 Section III traits associated with BPD, forming the initial block of analysis. Subsequently, the additional CAT-PD traits were introduced to assess their incremental predictive value. Beta weights for the CAT-PD scales in the regression equation with all variables entered were presented, allowing for the assessment of each trait's contribution to the predictive model. The determination of whether these supplementary traits contributed significantly to the predictive capacity was gauged through calculating an F-statistic, assessing whether subsequent blocks in the regression model yielded a substantial increase in explained variance.

Building upon previous research discussions presented earlier, this study's hypothesis was incorporating additional CAT-PD traits into the regression model,

following the inclusion of DSM-5 Section III traits, would notably improve the model's ability to predict BPD criteria. This hypothesis aligns with prior findings and aims to enhance the accuracy of predicting BPD by considering a broader range of personality traits.

Methods

Participants

The current study utilized data on female inmates recruited from the Kentucky Correctional Institution for Women (KCIW), a multiple-security prison approximately 95 miles from Eastern Kentucky University. It also utilized data collected at Eastern Kentucky University. Another research team collected both samples independently under the supervision/direction of this project's doctoral advisor and combined them for analysis, resulting in a total sample size of 387.

Correctional Sample (*N* = 200). Participants included 200 correctional female offenders from a multilevel correctional facility. The sample consisted of Caucasian (87%) and African American (6.5%) individuals, as well as other ethnicities (6.5%). The mean age of participants was 34.3 years (SD = 8.6), with a mean education of 11.4 years (SD = 2.0). The predominant reason for incarceration was drug offenses (56%), followed by probation violations (28.5%), violent offenses (26.5%), and property-related (e.g., burglary, theft) (24.5%). In line with the Department of Corrections guidelines, participants were not compensated for their participation in the study, which was completely voluntary. Ethnicity demographics are represented in Table 2, and offenses demographics are represented in Table 4.

University Sample (*N* = 187). Participants were recruited from a southeast state university (EKU) in exchange for course credit. For the purpose of this study, the female population within this sample was only used. Among the 345 university participants, 71% were female (186). The sample consisted of primarily Caucasian students (89.3%), African American students comprising 4.8% of the sample, and those with other ethnicities comprising 5.9%. The participants were mostly in their first year of college (44.4%), followed by third year (20.9%), fourth year (20.9%), and second year (14.4%). Ethnicity demographics are represented in Table 2, and academic standing is represented in Table 3.

Measures

Computerized Adapted Test of Personality Disorder Static Form (CAT-PD-SF)

The CAT-PD-SF (Simms et al., 2011) is a 216-item measure of dimensional pathological personality traits that pulls items from the full CAT-PD item pool. Similar to the full CAT-PD, the static form continues to use 33 scales and exhibited moderate to good internal consistency in the current sample, ranging from .61 (Manipulativeness) to .89 (Self-harm), with a median of .80. To date, several studies have demonstrated a strong convergence between the CAT-PD and the Personality Inventory for DSM-5 (PID-5; Krueger et al., 2012) as well as the NEO Personality Inventory-3 First Half (NEO-PI-3FH; McCrae & Costa, 2007; Wright & Simms, 2014). In addition to demonstrating content validity, the CAT-PD traits have been shown to provide some degree of incremental validity beyond those assessed by the PID-5 for various clinical outcomes (e.g., suicide risk, nonsuicidal self-injury, physical aggression, social aggression, rule-breaking, and antisocial behavior; Yalch & Hopwood, 2016).

Personality Assessment Inventory (PAI)

The PAI-BOR (Morey, 1991) consists of four subscales (each with six items), which reflect four characteristics of BPD: Affective Instability (AI), Identity Problems (IP), Negative Relationships (NR), and Self-Harm (SH). For the purpose of this study, only the BPD scale was used. The BPD scale has 24 items, which are summed into a total score.

Personality Diagnostic Questionnaire-4 (PDQ-4)

The PDQ-4 (Hyler, 1994) is a self-report questionnaire with 99 true/false items designed to measure the 10 PDs included in *DSM-IV* Axis II and the 2 PDs (passive-aggressive and depressive) proposed for further research. The PDQ-4 lists one item for each *DSM-IV* PD criterion; there are no reverse-scored items, and the item responses are summed to give the PD scale total score; the higher the total score, the higher the number of criteria for a given PD reported by a given participant. In the current study, only the Borderline scale was used.

Zanarini Rating Scale for Borderline Personality Disorder: Self-report Version (ZAN-BPD: SRV)

This nine-item self-report measure assesses the severity of BPD symptoms over the past week. It consists of a five-level set of anchored rating points for each of the nine criteria for BPD found in the DSM-5. Previous research has demonstrated that this measure adequately captures the severity of borderline symptoms (Zanarini et al., 2015). In the current study, the total score was used.

Composite Score

A composite score was developed utilizing the aforementioned measures of BPD (PAI BOR, ZAN, PDQ-4 BPD). This composite score not only amalgamates diverse assessment tools but also furnishes a comprehensive evaluation of BPD traits.

Manipulated CAT-PD Traits: Selection Rationale and Application

The rationale for selecting Manipulativeness as one of the traits for this research study stems from its relevance in assessing a behavioral pattern of taking advantage of others to achieve self-serving goals, including tendencies towards dishonesty and exploitation. This trait encompasses various dimensions of interpersonal manipulation and deceit, evident in behaviors such as exploiting others for personal gain and engaging in deceptive practices. Correspondingly, this trait aligns with several criteria outlined in Section 2 of the DSM-5 for BPD, particularly criteria (2) concerning unstable and intense interpersonal relationships characterized by idealization and devaluation, and (4) reflecting impulsivity in potentially self-damaging behaviors, which also resonates with the criteria outlined in the DSM-5-TR (APA, 2022).

Mistrust is another crucial trait selected for evaluation due to its assessment of a pervasive skepticism towards the motives and integrity of others, alongside a general attitude of negativity and disbelief. This trait encompasses suspicions of hidden agendas and expectations of betrayal, aligning with BPD criteria such as (1) frantic efforts to avoid abandonment, (2) instability in interpersonal relationships marked by idealization and devaluation, and (9) transient paranoid ideation or severe dissociative symptoms, as outlined in the DSM-5-TR (APA, 2022).

The inclusion of Emotional Detachment in the study is warranted as it captures tendencies towards emotional reserve and difficulty in expressing feelings, which are characteristic features of BPD. Individuals scoring high on this trait may struggle with emotional intimacy and exhibit a marked inability to describe or experience their emotions openly. This trait corresponds with BPD criteria (1) frantic efforts to avoid abandonment, (2) unstable interpersonal relationships, (6) affective instability, and (7) chronic feelings of emptiness, as described in the DSM-5-TR (APA, 2022).

Anger, as a trait, is significant in assessing the propensity to experience and express intense emotions, particularly anger and irritability. This trait reflects the emotional dysregulation observed in individuals with BPD, aligning with criteria (6) concerning affective instability and (8) reflecting inappropriate, intense anger or difficulty in anger management, as outlined in the DSM-5-TR (APA, 2022).

The inclusion of Self-harm as a trait for evaluation is essential due to its direct association with self-injurious behaviors, including suicidal ideation and non-lethal self-harming acts. This trait corresponds closely with BPD criteria (5), which outlines recurrent self-harming behaviors or suicidal tendencies, as described in the DSM-5-TR (APA, 2022).

Exhibitionism is selected for evaluation to capture tendencies towards attention-seeking behaviors, flamboyance, and provocative displays, which are indicative of identity disturbances and impulsivity seen in BPD. This trait aligns with criteria (2) concerning unstable interpersonal relationships, (3) identity disturbance, and (4) reflecting impulsivity in potentially self-damaging areas, as outlined in the DSM-5-TR (APA, 2022).

Finally, Fantasy Proneness is included in the study to assess the propensity towards immersive daydreaming and dissociative experiences, which may reflect underlying identity disturbances and transient paranoid ideation observed in BPD. This trait corresponds with several BPD criteria, including (1) frantic efforts to avoid abandonment, (3) identity disturbance, and (9) transient paranoid ideation or severe dissociative symptoms, as described in the DSM-5-TR (APA, 2022).

The selection of these traits for evaluation in this research study offers a comprehensive exploration of the CAT-PD and its alignment with the diagnostic criteria outlined in Section II and Section III of the DSM-5-TR (APA, 2022). All of the AMPD BPD Traits and the proposed AMPD BPD Traits are listed with their accompanying questions are presented in Table 5. By examining key dimensions such as manipulativeness, mistrust, emotional detachment, anger, self-harm, exhibitionism, and fantasy proneness, this study aims to contribute to the refinement of diagnostic tools and enhance our understanding of BPD and its underlying traits through the AMPD lens.

Results

Using the CAT-PD, this study examined the associations between the seven proposed Section III BPD traits and the seven traits the examiner predicted would add incremental validity by using two samples: university and incarcerated women. I calculated zero-order correlations among the standard Section III BPD traits and the seven additional traits deemed conceptually or empirically relevant to the BPD construct. The results for the correctional sample are shown in Table 6, and the results of the university sample are shown in Table 7.

To examine the unique and additive associations for Section III traits with BPD total and domain scores, I also utilized hierarchical regression for each BPD criterion score in which the seven standard Section III traits were entered as predictors in the first step, and the seven additional candidate traits were added in the second step. The results for each step of each regression equation are shown in Tables 8 through 23.

Correctional Sample

Correlation and Regression Analyses. All analyses discussed below are represented in Table 6 in the Appendix. Due to numerous significant results, only ones significant at the .001 level are discussed. These are identified by a single asterisk in the table.

BPD Total Composite. The BPD Total composite score was correlated at the .001 level with all the AMPD BPD traits and AMPD BPD proposed traits but exhibitionism. The multiple regression analysis revealed that Relationship Insecurity significantly predicted BPD Total at the .001 level, $\beta = .202$, $t = 3.445$, $p = .001$. The multiple regression analysis revealed that Anger was a significant predictor of BPD Total at the .001 level, $\beta = .236$, $t = 3.738$, $p = .000$. The multiple regression analysis revealed that Self-harm was a significant predictor of BPD Total at the .001 level, $\beta = .191$, $t = 3.977$, $p = .000$.

PDQ-4 BPD. Notably, the results stated above for the BPD composite were similar to what was found when the correlations were reviewed on the PDQ-4. All traits except for exhibitionism were found to be correlated at the .001 level. The multiple regression analysis revealed that Anger was a significant predictor of BPD at the .001 level using the PDQ-4, $\beta = .259$, $t = 3.458$, $p = .001$.

Zanarini BPD. Similarly, Zanarini had the same results. All of the AMPD BPD Traits and the proposed AMPD BPD Traits, but exhibitionism was found to be significantly correlated at the .001 level. The multiple regression analysis revealed that Self-harm was a significant predictor of BPD at the .001 level using the Zanarini, β = .248, t = 3.557, p = .000.

PAI BPD Total. Particularly, the PAI BPD Total measure was significantly correlated with all the AMPD BPD Traits and all the proposed AMPD BPD Traits at the .001 level. The multiple regression analysis revealed that Non-planfulness was a significant predictor of BPD at the .001 level using the PAI BPD Total, β = .203, t = 3.886, p = .000.

PAI Affective Instability. Similar to the BPD Total, PDQ4, and Zanarini, all traits but exhibitionism were found to be significantly correlated at the .001 level with PAI's subscale Affective Instability. The multiple regression analysis revealed that Anger was a significant predictor of BPD at the .001 level using the PAI subscale Affective Instability, β = .418, t = 5.560, p = .000.

PAI Identity Disturbances. The PAI subscale Identity Disturbance was significantly correlated at the .001 level with all AMPD BPD traits and proposed traits except exhibitionism. The multiple regression analysis revealed that Anxiety was a significant predictor of BPD at the .001 level using the PAI subscale Identity Disturbances, β = .249, t = 3.917, p = .000. The multiple regression analysis revealed that Relationship Insecurity was a significant predictor of BPD at the .001 level using the PAI subscale Identity Disturbances, β = .327, t = 4.916, p = .000. The multiple regression

analysis revealed that Fantasy Proneness was a significant predictor of BPD at the .001 level using the PAI Subscale Identity Disturbances, $\beta = .208$, $t = 3.909$, $p = .000$.

PAI Negative Relationships. Notably, PAI subscale Negative Relationships was not significantly correlated at the .001 level with Exhibitionism or Manipulativeness but was with the seven AMPD BPD Traits and the five proposed AMPD BPD Traits. The multiple regression analysis revealed that Relationship Insecurity was a significant predictor of BPD at the .001 level using the PAI subscale Negative Relationships, $\beta = .353$, $t = 4.152$, $p = .000$.

PAI Self-Harm. The PAI subscale Self-harm was not significantly correlated at the .001 level with Depressiveness and Emotional Detachment. It was significantly correlated with six of the AMPD BPD Traits and six of the proposed AMPD BPD Traits. The multiple regression analysis revealed that Non-Planfulness was a significant predictor of BPD at the .001 level using the PAI subscale Self-harm, $\beta = .393$, $t = 5.798$, $p = .000$.

Incremental Validity. All the results reported below were evaluated with a p-value of < .001 to observe whether results were the observed effect is statistically significant at a very stringent level.

BPD Total Composite. Table 8 illustrates a hierarchical regression analysis exploring the predictive power of additional traits beyond DSM-5 BPD traits in a correctional sample's total borderline traits. The model initially accounted for a substantial variance ($R = .81$, $R^2 = .66$, $p < .001$), with subsequent introduction of additional traits significantly enhancing predictive power ($\Delta R^2 = .08$, $p < .001$).

PDQ-4 BPD. Table 10 presents findings from a hierarchical regression analysis assessing additional traits' incremental validity in predicting borderline traits using the PDQ-4. DSM-5 BPD traits showed significant predictive power (R = .73, R^2 = .53, p < .001), with the inclusion of extra traits further enhancing predictive capability (ΔR^2 = .08, p < .001).

Zanarini BPD. Table 12 outlines results from a hierarchical regression analysis predicting borderline traits using the Zanarini instrument. Initial DSM-5 BPD traits displayed notable predictive power (R = .60, R^2 = .36, p < .001), with additional traits significantly improving predictive capability (ΔR^2 = .07, p < .001).

PAI BPD Total. Table 14 demonstrates the outcomes of a hierarchical regression analysis predicting borderline traits using the PAI BPD Total score. Initial DSM-5 BPD traits exhibited robust predictive power (R = .80, R^2 = .64, p < .001), with additional traits further enhancing predictive capability (ΔR^2 = .05, p < .001).

PAI Affective Instability. Table 16 showcases results from a hierarchical regression analysis assessing additional traits' incremental validity in predicting borderline traits using the PAI Affective Instability Scale. Initial DSM-5 BPD traits displayed substantial predictive power (R = .70, R^2 = .49, p < .001).

PAI Identity Problems. Table 18 presents findings from a hierarchical regression analysis predicting borderline traits using the PAI Identity Problems Scale. Initial DSM-5 BPD traits exhibited considerable predictive power (R = .78, R^2 = .60, p < .001), with additional traits significantly enhancing predictive capability (ΔR^2 = .05, p < .001).

PAI Negative Relationships. Table 20 showcases the role of additional traits in predicting borderline traits using the PAI Negative Relationships Scale within a

correctional sample. Initially, the model, comprising DSM-5 BPD traits, was significantly associated with borderline traits (R = .62, R^2 = .38). However, introducing additional traits did not result in a statistically significant enhancement (ΔR^2 = .04, p = ns).

PAI Self-Harm. Table 22 demonstrates results from a hierarchical regression analysis assessing additional traits' incremental validity in predicting borderline traits using the PAI Self-Harm Scale. Initial DSM-5 BPD traits displayed notable predictive power (R = .66, R^2 = .43, p < .001), with additional traits leading to a discernible increase in predictive capability (ΔR^2 = .05, p < .001).

University Sample

Correlation and Regression Analyses. All analyses discussed below are represented in Table 7 in the Appendix. Due to numerous significant results, only ones significant at the .001 level are discussed. These are identified by a single asterisk in the table.

BPD Total Composite. The BPD Total composite score was correlated at the .001 level with all the AMPD BPD traits and AMPD BPD proposed traits. The multiple regression analysis revealed that Non-Planfulness was a significant predictor of BPD at the .001 level using the BPD Total Composite, β = .113, t = 2.648, p = .009. The multiple regression analysis revealed that Relationship Insecurity was a significant predictor of BPD at the .001 level using the BPD Total Composite, β = .199, t = 3.536, p = .001. The multiple regression analysis revealed that Self-Harm was a significant predictor of BPD at the .001 level using the BPD Total Composite, β = .151, t = 3.096, p = .002.

PDQ-4 BPD. The PDQ-4 BPD score was correlated at the .001 level with all the AMPD BPD traits and AMPD BPD proposed traits. The multiple regression analysis

revealed that Relationship Insecurity was a significant predictor of BPD at the .001 level using the PDQ-4 BPD score, $\beta = .201$, $t = 2.634$, $p = .009$.

Zanarini BPD. The Zanarini BPD score was correlated at the .001 level with all the AMPD BPD traits and AMPD BPD proposed traits. The multiple regression analysis revealed that Affective Lability was a significant predictor of BPD at the .001 level using the Zanarini BPD score, $\beta = .184$, $t = 2.203$, $p = .029$. The multiple regression analysis revealed that Depressiveness was a significant predictor of BPD at the .001 level using the Zanarini BPD score, $\beta = .175$, $t = 2.254$, $p = .025$. The multiple regression analysis revealed that Non-Planfulness was a significant predictor of BPD at the .001 level using the Zanarini BPD score, $\beta = .160$, $t = 2.874$, $p = .005$. The multiple regression analysis revealed that Self-Harm was a significant predictor of BPD at the .001 level using the Zanarini BPD score, $\beta = .213$, $t = 3.383$, $p = .001$.

PAI BPD Total. The PAI BPD Total score was correlated at the .001 level with all the AMPD BPD traits and AMPD BPD proposed traits. The multiple regression analysis revealed that Non-Planfulness was a significant predictor of BPD at the .001 level using the PAI BPD Total, $\beta = .091$, $t = 2.062$, $p = .041$. The multiple regression analysis revealed that Relationship Security was a significant predictor of BPD at the .001 level using the PAI BPD Total, $\beta = .203$, $t = 3.499$, $p = .001$. The multiple regression analysis revealed that Anger was a significant predictor of BPD at the .001 level using the PAI BPD Total, $\beta = .127$, $t = 2.269$, $p = .024$. The multiple regression analysis revealed that Exhibitionism was a significant predictor of BPD at the .001 level using the PAI BPD Total, $\beta = .100$, $t = 2.201$, $p = .029$.

PAI Affective Instability. The PAI subscale Affective Instability score was correlated at the .001 level with all the AMPD BPD traits and AMPD BPD proposed traits. The multiple regression analysis revealed that Depressiveness was a significant predictor of BPD at the .001 level using the PAI subscale Affective Instability, $\beta = .187$, $t = 2.922$, p = .004. The multiple regression analysis revealed that Hostile Aggression was a significant predictor of BPD at the .001 level using the PAI subscale Affective Instability, $\beta = .170$, $t = 2.718$, $p = .007$. The multiple regression analysis revealed that Anger was a significant predictor of BPD at the .001 level using the PAI subscale Affective Instability, $\beta = .288$, $t = 5.002$, $p = .000$.

PAI Identity Disturbances. The PAI subscale Identity Disturbances score was correlated at the .001 level with all the AMPD BPD traits and AMPD BPD proposed traits. The multiple regression analysis revealed that Relationship Insecurity was a significant predictor of BPD at the .001 level using the PAI subscale Identity, $\beta = .340$, $t = 4.707$, $p = .000$. The multiple regression analysis revealed that Fantasy Proneness was a significant predictor of BPD at the .001 level using the PAI subscale Identity Disturbances, $\beta = .135$, $t = 2.252$, $p = .026$.

PAI Negative Relationships. The PAI subscale Negative Relationships score was correlated at the .001 level with all the AMPD BPD traits and AMPD BPD proposed traits. The multiple regression analysis revealed that Relationship Insecurity was a significant predictor of BPD at the .001 level using the PAI subscale Negative Relationships, $\beta = .223$, $t = 2.623$, $p = .010$. The multiple regression analysis revealed that Mistrust was a significant predictor of BPD at the .001 level using the PAI subscale Negative Relationships, $\beta = .190$, $t = 2.167$, $p = .032$.

PAI Self-Harm. The PAI subscale Affective Instability score was correlated at the .001 level with all the AMPD BPD traits and AMPD BPD proposed traits but exhibitionism. The multiple regression analysis revealed that Depressiveness was a significant predictor of BPD at the .001 level using the PAI subscale Self-harm, β = -.226, t = -2.422, p = .016. The multiple regression analysis revealed that Non-Planfulness was a significant predictor of BPD at the .001 level using the PAI subscale Self-harm, β = .283, t = 4.253, p = .000. The multiple regression analysis revealed that Risk-Taking was a significant predictor of BPD at the .001 level using the PAI subscale Self-harm, β = .243, t = 3.292, p = .001. The multiple regression analysis revealed that Exhibitionism was a significant predictor of BPD at the .001 level using the PAI subscale Self-harm, β = .167, t = 2.444, p = .016.

Incremental Validity. All the results reported below were evaluated with a p-value of < .001 to observe whether results were the observed effect is statistically significant at a very stringent level.

BPD Total Composite. Table 9 demonstrates the progression of a hierarchical regression analysis assessing the added value of extra traits alongside DSM-5 BPD traits in forecasting total borderline traits within a university sample. Initially, the model, incorporating DSM-5 BPD traits, substantially explained variance in borderline traits (R = .87, R^2 = .75). Upon introducing additional traits, the model's predictive capacity did not significantly improve (ΔR^2 = .03, p = ns).

PDQ-4 BPD. Table 11 portrays a hierarchical regression analysis exploring the contribution of supplementary traits in predicting borderline traits using the PDQ-4 within a university sample. Initially, the model, consisting of DSM-5 BPD traits,

displayed a significant relationship with borderline traits (R = .75, R^2 = .57). However, incorporating additional traits did not notably enhance the model's predictive ability (ΔR^2 = .02, p = ns).

Zanarini BPD. Table 13 presents the findings of a hierarchical regression analysis examining the predictive utility of additional traits in borderline traits using the Zanarini instrument within a university sample. Initially, the model, comprising DSM-5 BPD traits, was significantly associated with borderline traits (R = .76, R^2 = .57). Upon introducing additional traits, there was a considerable improvement in the model's predictive power (ΔR^2 = .05, p < .001).

PAI BPD Total. Table 15 displays the results of a hierarchical regression analysis evaluating the role of extra traits in predicting borderline traits using the PAI BPD Total score within a university sample. Initially, incorporating DSM-5 BPD traits, the model significantly explained variance in borderline traits (R = .86, R^2 = .74). However, adding extra traits did not yield a statistically significant improvement (ΔR^2 = .03, p = ns).

PAI Affective Instability. Table 17 presents a hierarchical regression analysis exploring the predictive strength of additional traits in borderline traits using the PAI Affective Instability Scale within a university sample. Initially, the model, including DSM-5 BPD traits, significantly predicted borderline traits (R = .84, R^2 = .70). Upon introducing additional traits, there was a noticeable improvement in predictive capability (ΔR^2 = .04, p < .001).

PAI Identity Problems. Table 19 showcases the role of additional traits in predicting borderline traits using the PAI Identity Problems Scale within a university sample. Initially, the model, comprising DSM-5 BPD traits, was significantly associated

with borderline traits (R = .78, R^2 = .61). However, introducing additional traits did not result in a statistically significant enhancement (ΔR^2 = .02, p = ns).

PAI Negative Relationships. Table 21 presents the contribution of extra traits in predicting borderline traits using the PAI Negative Relationship Scale within a university sample. Initially, the model, including DSM-5 BPD traits, significantly predicted borderline traits (R = .67, R^2 = .45). However, incorporating additional traits did not lead to a statistically significant improvement (ΔR^2 = .04, p = ns).

PAI Self-Harm. Table 23 illustrates the predictive capacity of additional traits in borderline traits using the PAI Self-Harm Scale within a university sample. Initially, incorporating DSM-5 BPD traits, the model was significantly associated with borderline traits (R = .66, R^2 = .43). However, including additional traits did not result in a statistically significant enhancement (ΔR^2 = .02, p = ns).

Section IV: Discussion

Interpreting Correlation and Regression Findings: Implications and Insights

The purpose of the current study was to examine the proposed seven traits associated with borderline personality disorder (BPD) and explore whether integrating additional traits from the Comprehensive Assessment of Traits relevant to BPD (CAT-PD) could significantly enhance the predictive validity of the model. Given the contemporary shift towards dimensional models, the CAT-PD stands out as a robust psychometric tool, encompassing most DSM Section III AMPD traits and aligning conceptually with major dimensional models of personality disorder. To comprehensively address this objective, the study utilized measures of BPD, including the PAI BOR Total, PAI BPD Subscales, ZAN, and PDQ-4 BPD, alongside a composite score. The CAT-PD traits were systematically manipulated to supplement the existing seven scales with additional traits. The study employed a combination of zero-order correlation analyses and linear regression analyses to meticulously assess the predictive value of the CAT-PD traits, with beta weights carefully examined to understand the unique contribution of each trait to the model.

Furthermore, the study selected CAT-PD traits based on their clinical relevance, leveraging Pearson's *r* correlation matrix to delve into their intricate interrelationships. The regression models were meticulously hierarchical, integrating DSM-5 Section III traits before introducing additional CAT-PD traits to evaluate their incremental predictive value.

Correctional Sample

The results of the present study, represented in Table 6, provide valuable insights into the complex interplay between BPD traits and a range of psychological constructs within correctional settings.

AMPD BPD Traits. Initially, the investigation focused on the seven standard Section III BPD traits (Affective Lability, Anxiousness, Depressiveness, Hostile Aggression, Non-Planfulness, Relationship Insecurity, and Risk-Taking).

Correlation Analyses. Results showed significant correlations at the .001 level between all seven traits and the BPD Total Composite, PDQ-4 BPD Total, Zanarini BPD, PAI BPD Total, PAI Affective Instability, PAI Identity Disturbance, and PAI Negative Relationships. Notably, Depressiveness was the only trait out of the seven that did not significantly correlate at the .001 level with the PAI subscale Self-Harm. This finding deviates from the anticipated outcome, challenging prior assumptions. A core trait in both Section II and Section III's BPD construct has criteria related to depressiveness. It is a common belief that self-harm and suicide are connected to depression and can be heightened in individuals diagnosed with BPD (Linehan, 1993b; Oumaya et al., 2008). When reviewing the questions that make up the PAI Self-Harm scale, it appeared the questions captured the construct of impulsivity rather than depressivity. For example, some of the questions are "I sometimes do things so impulsively that I get into trouble," "I'm too impulsive for my own good," "I spend money too easily," and "I'm a reckless person," (Morey, 1991). Regarding the CAT-PD trait, depressiveness, the questions put emphasis on common concepts related to depression. For example, "Tend to feel very hopeless," "Am sad most of the time," "Generally focus on the negative side of things,"

and “Dislike myself” (Simms et al., 2011). When comparing the questions, it comes to light that understanding the way a measure is asking questions and the construct it targets may differ from measure to measure plays a large role in understanding what construct or trait measures are highlighting. With this understanding, it is clear why depressiveness and the PAI subscale Self-Harm were not significantly correlated.

Regression Analyses. Reviewing the regression analyses, Relationship Insecurity was a significant contributor to the BPD construct at the .001 level when reviewing the BPD Total Composite Score. Unstable or insecure relationships are a core construct for BPD, making this finding expected.

With a beta weight of .20, Non-Planfulness was found to be a significant contributor to the BPD construct using the PAI BPD Total. As discussed before, it is noted that the PAI subscale Self-harm, encompassed within the PAI BPD Total, tended to have wording match closer to impulsivity rather than self-harm. Reviewing the CAT-PD’s Non-Planfulness trait, the definition and questions target the impulsivity nature of BPD. For example, “Do things without thinking of the consequences, “Act without planning,” “Jump into things without thinking,” and “Prefer to 'live in the moment' rather than plan things out” (Simms et al., 2011). Due to the connection between impulsivity and self-harm between the trait and measure, this expectation was expected.

Notably, the trait Relationship Insecurity was found to be a significant contributor to the BPD construct when reviewing the PAI’s subscales of Identity Disturbances (β = .33) and Negative Relationships (β = .35) at the .001 level. Some questions that encompass the relationship insecurity trait are, “Am always worried that my partner is going to leave me,” “Am usually convinced that my friends and romantic partners will

betray me," "Get jealous easily," "Usually believe that my friends will abandon me," and "Am paralyzed by a fear of rejection" (Simms et al., 2011). Questions on the PAI Negative Relationship subscale like, "My relationships have been stormy," "I want to let certain people know how much they've hurt me," "People once close to me have let me down," "I rarely feel very lonely," "I've made some real mistakes in people I've picked as friends," "Once someone is my friend, we stay friends" (Morey, 1991) have an overlapping theme with the relationship insecurity trait. When reviewing these questions, the finding that Relationship Insecurity was a significant predictor with the PAI subscale Negative Relationships was expected. Regarding the PAI subscale Identity Disturbances, there were two questions that would align with the CAT-PD relationship insecurity trait; "I worry a lot about other people leaving me" and "I can't handle separation from those close to me very well" (Morey, 1991). This finding was expected when reviewed alongside the CAT-PD Relationship Insecurity questions.

When reviewing the PAI's subscale Identity Disturbance, anxiousness, with a beta weight of .25, was found to be a significant contributor to the BPD construct. The Anxiousness trait is represented by questions like, "Feel my anxiety overwhelms me," "Am nervous or tense most of the time, "Panic easily," "Feel that my worry and anxiety is out of control," "Am generally a fearful person," and "Am easily startled" (Simms et al., 2011). Other questions within the Identity Disturbance subscale are, "I worry a lot about other people leaving me," "I wonder what I should do with my life," "I can't handle separation from those close to me very well," I don't get bored very easily" (Morey, 1991). Simms et al. (2011) describe the anxiousness trait as "the tendency to be generally tense, prone to worry, fearful, panicky, and to excessively anticipate or avoid

situations or stimuli that are perceived as dangerous." With this definition, it would be expected that the concept of anxiety would be rooted in the unknown of oneself that identity disturbance is capturing.

With a beta weight of .39, Non-Planfulness was found to be a significant contributor to the BPD construct using the PAI subscale Self-Harm Total. As discussed before, the PAI subscale Self-harm, encompassed within the PAI BPD Total, tended to have wording matching closer to impulsivity rather than self-harm. With the previous knowledge applied here, this finding was expected.

AMPD BPD Proposed Traits. Initially, the investigation focused on the seven standard Section III BPD traits (Emotional Lability, Anger, Exhibitionism, Fantasy Proneness, Manipulativeness, Mistrust, and Self-harm).

Correlation Analyses. Results showed significant correlations at the .001 level with Emotional Lability, Anger, Fantasy Proneness, Manipulativeness, Mistrust, and Self-harm and the BPD Total Composite, PDQ-4 BPD, Zanarini BPD, and the PAI subscale Identity Disturbance. These traits were chosen for having a definition and question rationale that may have fit with the AMPD BPD construct. These results support the relationship between different ways of measuring BPD and their correlation with the proposed added traits.

All seven proposed traits were significantly correlated at the .001 level with the PAI BPD Total. This is a significant finding, and it's hypothesized that all seven proposed traits were significantly correlated because the PAI BPD Total has four subscales that can capture more of the BPD construct. The increase in question number enhances the measure's internal consistency. The PAI BPD Total is more likely to cover a

broader range of topics or aspects related to BPD, allowing for the proposed traits to be better represented (Morey, 1991).

Emotional Detachment, Anger, Fantasy Proneness, Mistrust, and Self-harm were all significantly correlated at the .001 level with the PAI's subscale Negative Relationships. The subscale Negative Relationships encompasses the following questions, "My relationships have been stormy," "I want to let certain people know how much they've hurt me," "People once close to me have let me down," "I rarely feel very lonely," "I've made some real mistakes in people I've picked as friends," and "Once someone is my friend, we stay friends" (Morey, 1991). Each of these traits can be represented in one or more of the questions, whether it's the definition of the concept, the act or behavior, or the consequence implied from these actions. Exhibitionism and Manipulativeness were the two traits not significantly correlated at the .001 level. Manipulativeness was an interesting finding for this measure. However, when reviewing the questions noted above, it is clear that this subscale does not emphasize the actions that may happen due to these negative relationships, including the concept of manipulation.

Anger, Exhibitionism, Fantasy Proneness, Manipulativeness, Mistrust, and Self-Harm were all significantly correlated at the .001 level with the PAI subscale Self-harm. Interestingly, this subscales wording puts heavy emphasis on impulsivity. These questions are, "I sometimes do things so impulsively that I get into trouble," "When I'm upset, I typically do something to hurt myself," "I'm too impulsive for my own good," "I spend money too easily," and "I'm a reckless person" (Morey, 1991). The direct correlation between this subscale and all these traits is unclear. It can be hypothesized, as stated above, that some of the questions within each trait and the concept they are getting

at. Anger and self-harm behaviors can be seen in this subscale's questions directly. Exhibitionism, Fantasy Proneness, Manipulativeness, and Mistrust is not as clear. For example, the trait Exhibitionism is represented by questions like, "Love to be the center of attention," "Like to stand out in a crowd," "Am likely to show off if I get the chance," and "Use my looks to get what I want" (Simms et al., 2011). Self-harm behavior can often be seen as attention-seeking behavior for individuals diagnosed with BPD (Linehan, 1993b; Oumaya et al., 2008), which could possibly explain the correlation between this subscale and trait.

Exhibitionism was not significantly correlated at the .001 level with the BPD Total Composite, PDQ-4 BPD, Zanarini BPD, PAI BPD Total, PAI Affective Instability, PAI Identity Disturbance, and PAI Negative Relationships. The definition of the trait Exhibitionism, according to Simms et al. (2011) is "the tendency to engage in and derive pleasure from a range of overt attention-seeking behaviors, behave in an overly flamboyant and theatrical manner characterized by exaggerated displays of emotion, and act and dress in sexually provocative ways." Reviewing these measures and the questions that make them up, it is not obvious that they contain a direct question to measure what could be termed as "attention seeking" or "acting out" behaviors. Within Section II's BPD criteria, this behavior could be represented in Criterion One through Five and in Section III's BPD construct in Criterion B, Traits Three, Five, and Six. This raises the question, do the Section III traits that this behavior can be seen within capture the construct well enough and the added trait is not needed, or do the measures that were used not capture this concept to the full extent to see a significant correlation between them?

Regression Analyses. Reviewing the regression analyses, Anger was a significant contributor to the BPD Total composite score. This study wanted to review and see whether the CAT-PD trait Hostile Aggression or Anger captured Section II's "inappropriate intense anger" BPD criteria (APA, 2022). Section III labels this contrast as "hostility" in the BPD diagnostic criteria (APA, 2022). With a beta weight of .24, anger was shown to be a significant contributor to BPD at the .001 level using the BPD Total Composite. Self-harm, at a beta weight of .19, was found to be a significant contributor at the .001 level, as well. As stated above, self-harm often being seen as a prominent piece of the BPD construct, making this finding expected.

Using the PDQ-4 BPD measure, anger, with a beta weight of .26, was shown to be a significant contributor to the BPD construct at the .001 level. The PDQ-4 contains 9 questions out of 99 that specifically get at the BPD construct and contains a direct question relating to anger (e.g., I have difficulty controlling my anger or temper; Hyler, 1994). This finding was to be expected.

The trait, Self-harm, had a beta weight of .25, which was a significant contributor to the BPD construct at the .001 level using the Zanarini BPD. When reviewing Zanarini's BPD Version, it's noted that there is not a specific question titled self-harm. However, the measure labels a self-harm question as "Physically Self-destructive Acts" (Zanarini, 2008). The items on this measure are rated on a 0 to 4 scale. Regarding this question, a rating of 1 would indicate "I mentioned thinking of killing myself once, or scratched or punched myself once" (Zanarini, 2008). While a rating of 3 would be, "I have threatened suicide a number of times, or cut or burned myself once, or made one suicide attempt that was not very serious" (Zanarini, 2008). With Zanarini's question

regarding self-harm being direct at stating what the question is focusing on, this would make this finding expected.

Notably, Anger (β = .42) was the only trait that contributed significantly at the .001 level to the PAI subscale Affective Instability. This scale contains questions that put emphasis on affect related to primarily anger, such as, "My mood can shift quite suddenly," "My moods get quite intense," "I have little control over my anger," and "I've had times when I was too mad I couldn't do enough to express all my anger" (Morey, 1991). Anger as a trait was discussed above, and this finding was expected when compared to the PAI Affective Instability

When reviewing the PAI subscale Identity Disturbance, Fantasy Proneness (β = .21) and Manipulativeness (β = .03) were found to be significant predictors of the BPD construct at the .001 level. Simms et al. (2011) defined the trait fantasy proneness as "the tendency to fantasize, daydream, and become fully engrossed in one's thoughts and experiences, sometimes to the extent of becoming distracted and losing sight of reality." An example of a question on this subscale that may encompass this definition would be, "I wonder what I should do with my life" (Morey, 1991). Manipulativeness as a trait is defined as, "a behavioral pattern of taking advantage of and exploiting others in order to achieve self-serving goals, as well as the tendency to lie, cheat, and behave in overtly or covertly dishonest ways," (Simms et al., 2011). This finding was surprising, leading to a more thorough review of the PAI's Identity Disturbances subscale questions. When examining these questions, the ones that may be the cause of this significant contribution could be "I worry a lot about other people leaving me" and "I can't handle separation from those close to me very well" (Morey, 1991). Although these questions are discussed

in relation to negative relationships, it could be hypothesized the actions from these thoughts may result in possible manipulating actions to avoid these fears. This study cannot confirm this but is worthy of future research to better understand this finding.

Incremental Validity.

Moreover, incremental validity analyses revealed promising findings regarding the predictive value of additional traits beyond DSM-5 BPD traits. Hierarchical regression analyses demonstrated that the inclusion of additional traits significantly enhanced the predictive power of the models across various measures, including the BPD Total Composite score (ΔR^2 = .08), PDQ-4 BPD (ΔR^2 = .08), Zanarini BPD (ΔR^2 = .07), PAI BPD Total score (ΔR^2 = .05), PAI Affective Instability Scale (ΔR^2 = .12), and PAI Identity Problems Scale (ΔR^2 = .05), and PAI Self-Harm (ΔR^2 = .05). These results suggest that incorporating additional traits from the Comprehensive Assessment of Traits relevant to BPD (CAT-PD) could improve the accuracy of BPD assessment within correctional populations.

These findings emphasize the intricate and multifaceted characteristics of BPD traits, highlighting their diverse impacts on different facets of psychological well-being among female inmates. A comprehensive comprehension of these intricate connections is essential for crafting targeted interventions and support systems customized to the distinct requirements of female correctional individuals exhibiting BPD traits.

University Sample

The results of the present study, represented in Table 7, provide valuable insights into the complex interplay between BPD traits and a range of psychological constructs within a University setting.

AMPD BPD Traits. Initially, the investigation focused on the seven standard Section III BPD traits (Affective Lability, Anxiousness, Depressiveness, Hostile Aggression, Non-Planfulness, Relationship Insecurity, and Risk-Taking).

Correlation Analyses. Results showed significant correlations at the .001 level between all seven AMPD BPD traits and the BPD Total Composite, PDQ-4 BPD Total, Zanarini BPD, PAI BPD Total, PAI Affective Instability, PAI Identity Disturbance, PAI Negative Relationships, and PAI Self-Harm. This finding is significant and interesting due to the sample being reviewed. The question may be, does this mean that all female undergraduate students have significant traits that can be captured and seen through a BPD lens? That is more than likely not the case. Previously, the measures, their questions, and the AMPD BPD Traits have been defined. All although these traits taken together can lead to a diagnosis of BPD, this is where it would be important to ask the question, is this psychopathology related or current circumstances related? It can be hypothesized that many of these traits may be experienced by this specific population due to their surrounding circumstances (e.g., first-college experience, first-generation student, leaving family, making friends, etc.). These findings and proposed questions should be explored in future research.

Regression Analyses. Reviewing the regression analyses, Non-Planfulness (β = .05) and Relationship Insecurity (β = .20) are significant contributors to the BPD construct at the .001 level when reviewing the BPD Total Composite Score. Impulsivity and unstable or insecure relationships are core constructs of BPD, making this finding expected.

Relationship Insecurity (β = .20) was a significant contributor to the BPD construct at the .001 level when reviewing the PDQ-4 BPD Total. The PDQ-4's BPD consists of nine questions, one of which states, "I'll go to extremes to prevent those who I love from ever leaving me" (Hyler, 1994). With the low number of questions relating to the BPD construct on this measure, a question aimed directly at relationship concerns makes this finding expected.

The traits, Affective Lability (β = .18), Depressiveness (β = .18), and Non-Planfulness (β = .16), were significant contributors to the BPD construct at the .001 level using the Zanarini BPD. Two of the nine questions on the Zanarini focus on emptiness, angry feelings, and acts, which can relate to the Depressiveness and Non-Planfulness traits.

Using the PAI BPD Total, Non-Planfulness (β = .09) and Relationship Insecurity (β = .20) were found to be significant contributors to the BPD construct at the .001 level. The range of BPD constructs the PAI BPD Total is able to encompass makes this finding expected.

When reviewing the individual PAI subscale of Affective Instability, Depressiveness (β = .19) and Hostile Aggression (β = .17) were found to be significant contributors to the BPD construct. With affect encompassing concepts of depression and aggression, this finding was expected.

When viewing the PAI's subscale Identity Disturbance, Relationship Insecurity (β = .34) was found to be a significant contributor at the .001 level for the BD construct. This subscale contains questions like, "I worry a lot about other people leaving me" and

"I can't handle separation from those close to me very well" (Morey, 1991). When taking this into consideration, Relationship Insecurity being significant was expected.

Relationship Insecurity (β = .22) significantly contributed to the BPD construct at the .001 level when observing the PAI's subscale Negative Relationships. This finding was expected.

Using the PAI's subscale Self-Harm, Depressiveness (β = -.23), Non-Planfulness (β = .28), and Risk-Taking (β = .24) were found to significantly contribute to the BPD construct at the .001 level. Individuals diagnosed with BPD often partake in self-harming behaviors (Linehan, 1993b), and this can be a result of symptoms like depression, impulsivity, and risk-taking behaviors. Due to this, the findings were expected.

AMPD BPD Proposed Traits. Initially, the investigation focused on the seven standard Section III BPD traits (Emotional Lability, Anger, Exhibitionism, Fantasy Proneness, Manipulativeness, Mistrust, and Self-harm).

Correlational Analyses. Results showed significant correlations at the .001 level between all seven proposed AMPD BPD traits and the BPD Total Composite, PDQ-4 BPD Total, Zanarini BPD, PAI BPD Total, PAI Affective Instability, PAI Identity Disturbance, and PAI Negative Relationships. The questions associated with the AMPD BPD Traits can also be proposed for these traits.

Results showed significant correlations at the .001 level between the traits Emotional Detachment, Anger, Fantasy Proneness, Manipulativeness, Mistrust, and Self-Harm with PAI's subscale Self-Harm. The only trait that was not found to be significantly correlated was exhibitionism. Notably, this finding was not expected when reviewing the other correlations within this sample. The definition of the trait

Exhibitionism according to Simms et al. (2011) is "the tendency to engage in and derive pleasure from a range of overt attention-seeking behaviors, behave in an overly flamboyant and theatrical manner characterized by exaggerated displays of emotion, and act and dress in sexually provocative ways." This subscale's questions are, "I sometimes do things so impulsively that I get into trouble," "When I'm upset, I typically do something to hurt myself," "I'm too impulsive for my own good," "I spend money too easily," and "I'm a reckless person" (Morey, 1991). Self-harm, acting out behavior, and impulsivity are often discussed together (Linehan, 1993b; Oumaya et al., 2008). College students are often viewed as being impulsive or acting out behavior as they are developing their identities (Pearson et al., 2013). When reviewing the trait exhibitionism, the PAI subscale Self-Harm, and the community discussion about university students' behaviors, it is unclear why this trait would not be correlated significantly and should be investigated further.

Regression Analyses. Reviewing the regression analyses, Self-Harm (β = .15) was a significant contributor to the BPD construct at the .001 level when reviewing the BPD Total Composite Score. Self-harm behaviors are an important construct of the BPD diagnosis (Linehan, 1993b), so this finding was to be expected.

The Self-Harm (β = .21) trait was a significant contributor to the BPD construct at the .001 level using the Zanarini BPD. The Zanarini refers to their question about self-harm behaviors as "physically self-destructive acts" (Zanarini, 2008). A rating of three on this question, on a scale of zero to four, says, "I have threatened suicide a number of times, or cut or burned myself once, or made one suicide attempt that was not very serious" (Zanarini, 2008). Reviewing this made this finding expected.

Using the PAI BPD Total, Anger (β = .13) and Exhibitionism (β = .10) were found to be significant contributors to the BPD construct at the .001 level. The range of BPD constructs the PAI BPD Total can encompass makes this finding expected.

When reviewing the individual PAI subscale of Affective Instability, Anger (β = .29) was found to be a significant contributor to the BPD construct. With affect encompassing anger as a concept, this finding was expected.

When viewing the PAI's subscale Identity Disturbance, Fantasy Proneness (β = .14) was found to be a significant contributor at the .001 level for the BD construct. This subscale contains questions like, "I wonder what I should do with my life" (Morey, 1991). According to Simms et al., 2011, the definition of Fantasy Proneness is "the tendency to fantasize, daydream, and become fully engrossed in one's thoughts and experiences, sometimes to the extent of becoming distracted and losing sight of reality." The subscale captures the within oneself by posing a question about thought, for example, of life, which may be a reason fantasy proneness is a significant contributor. When taking this into consideration, Fantasy Proneness being a contributor was expected.

When observing the PAI's subscale Negative Relationships, mistrust (β = .19) significantly contributed to the BPD construct at the .001 level. This finding was expected, as mistrust can contribute to relationship struggles.

Using the PAI's subscale Self-Harm, Exhibitionism (β = .17) was found to significantly contribute to the BPD construct at the .001 level. The questions on this subscale try to capture the impulsivity or acting out behaviors, which is what exhibitionism encompasses, that may be represented in the BPD construct related to self-harm. Examples of these questions are, "I sometimes do things so impulsively that I get

into trouble," "When I'm upset, I typically do something to hurt myself," "I'm too impulsive for my own good," and "I'm a reckless person" (Morey, 1991). Reviewing this information together made this finding to be expected.

Incremental Validity. Regarding incremental validity analyses, the results indicate mixed findings regarding the added value of additional traits beyond DSM-5 BPD traits in predicting borderline traits within the university sample. While initial models incorporating DSM-5 BPD traits demonstrated significant predictive power across various measures, including additional traits did not consistently enhance the models' predictive capabilities. In some cases, adding extra traits led to a noticeable improvement in predictive capability (e.g., Zanarini BPD, $\Delta R^2 = .05$; PAI Affective Instability, $\Delta R^2 = .04$), whereas in others, it did not result in a statistically significant enhancement. These findings suggest that while certain additional traits may contribute to predicting borderline traits within university populations, their incremental validity varies across different measures and contexts.

These findings, combined, underscore the nuanced and multifaceted nature of BPD traits and their differential contributions to various aspects of psychological functioning within university populations. Understanding these complex relationships is crucial for developing effective interventions and support strategies tailored to the unique needs of university students with BPD traits.

Section V: Conclusion

Combining findings from both correctional and university samples offers a comprehensive understanding of how borderline personality disorder traits influence diverse populations. This study elucidates complex relationships between BPD traits and psychological constructs, providing insights into symptom manifestation across different contexts. These insights inform tailored interventions to address the unique needs of individuals with BPD traits, promoting mental health and well-being.

In conclusion, specific personality traits significantly shape the manifestation and severity of BPD symptoms. Exploring trait-based predictors unveils nuanced interplays between individual characteristics and clinical presentations of BPD. The AMPD's BPD traits were all supported as significant predictors of BPD using three measures of the BPD construct, four subscales, and a BPD Total Composite score. Within the correctional sample, the Proposed AMPD BPD Traits, Anger, Fantasy Proneness, Mistrust, and Self-Harm were significant predictors. Exhibitionism was found not to be a significant predictor of BPD using any of the measures but was significantly correlated with The PAI BPD Total and its subscale Self-Harm. The university sample showed significant correlations with all 14 traits, AMPD BPD, and proposed traits, to all the measures but PAI Self-Harm, in which exhibitionism was not correlated. Within this sample, self-harm was the only proposed trait that was a significant predictor of BPD using the BPD Total composite score, which encompassed all the measures together. Reviewing these traits and highlighting key features of BPD using the AMPD can help inform targeted treatment approaches for individuals navigating BPD-related challenges and continue the

discussion about the usefulness of this model for the future of diagnosing personality disorders.

Limitations

While the study yielded significant insights into the predictive validity of incorporating CAT-PD traits into regression models, several limitations warrant consideration. Firstly, the study exclusively focused on female samples, including female university students and correctional females. This limited scope raises questions about the generalizability of the findings to male populations and individuals from diverse demographic backgrounds. Future research should strive to include more diverse samples to ensure the robustness and applicability of the findings across different demographic groups.

Secondly, despite the meticulous selection of CAT-PD traits based on clinical relevance, there may still be other relevant traits that were not included in the analysis. The CAT-PD encompasses a wide array of personality pathology traits, and including additional traits in future studies could further refine predictive models and enhance their validity. Additionally, the study relied on self-report measures to assess personality traits, which may be subject to biases such as social desirability and response distortion. Incorporating multiple assessment methods, including clinician-rated measures and behavioral observations, could provide a more comprehensive and accurate assessment of personality pathology.

In conclusion, while the study contributes significantly to the field by highlighting the incremental validity of CAT-PD traits in enhancing predictive models of personality pathology, it is essential to acknowledge these limitations. Further research efforts should

address these limitations by exploring more diverse samples, incorporating additional relevant traits, and employing multiple assessment methods to ensure the robustness and reliability of findings in the study of personality disorders.

Future Direction

Moving forward, future research should concentrate on advancing the understanding and assessment of borderline personality disorder (BPD) by exploring the role of CAT-PD traits within the context of DSM-5 Section III. Specifically, investigating how additional CAT-PD traits beyond the existing seven proposed for BPD could enhance the predictive validity of diagnostic models is crucial. By incorporating a broader range of CAT-PD traits, researchers can better capture the heterogeneity and complexity of BPD symptoms, ultimately refining diagnostic criteria and improving diagnostic accuracy.

Furthermore, there is a need for longitudinal studies to examine the stability and predictive power of CAT-PD traits specific to BPD over time. Understanding the trajectory of these traits and their association with clinical outcomes can provide valuable insights into the course of BPD and inform early intervention strategies. Longitudinal research can also elucidate the temporal relationships between CAT-PD traits and other clinical variables, such as functional impairment and treatment response, contributing to the development of more effective interventions for individuals with BPD.

Moreover, future research should explore the clinical utility of CAT-PD traits in BPD's assessment and treatment planning. Clinicians could benefit from guidance on integrating CAT-PD traits into existing assessment protocols, such as structured interviews and self-report measures, to improve the accuracy of BPD diagnosis.

Additionally, investigating which CAT-PD traits are most predictive of treatment outcomes for BPD can inform personalized treatment approaches tailored to the specific needs and characteristics of individuals with BPD. Overall, focusing on the integration of CAT-PD traits into the assessment and management of BPD within the framework of DSM-5 Section III holds promise for advancing both research and clinical practice in the field of personality disorders.

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Table 1

Overview of Specific DBT Skills by Module

Mindfulness Skills	**Emotion Regulation Skills**
Core mindfulness skills	Understanding and naming emotions
Wise mind (states of mind)	Changing emotional responses
"What" skills (observe, describe, participate	Checking the facts
"How" skills (nonjudgmentally, one-mindfully, effectively)	Opposite action
Other Perspectives on Mindfulness	Problem solving
Mindfulness practice: A spiritual perspective (including wise mind and practicing loving kindness)	Reducing vulnerability to emotion mind
Skillful means: Balancing doing mind and being mind	ABC PLEASE (Accumulate positive emotions, Build mastery, Cope ahead; treat psychicaL illness, balance Eating, avoid mood-Altering substances, balance Sleep, get Exercise)
Wise mind: Walking the middle path	Managing really difficult emotions
	Mindfulness of current emotions
	Managing extreme Emotions
Interpersonal Effectiveness Skills	**Distress Tolerance Skills**
Obtaining objectives skillfully	Crisis survival skills
Clarifying priorities	STOP Skill
Objectives effectiveness	Pros and Cons
DEAR MAN (Describe, Express, Assert, Reinforce; stay Mindful, Appear confident, Negotiate)	TIP body chemistry (Temperature, Intense exercise, Paced breathing, Paired muscle relaxation)
Relationship Effectiveness	Distracting with wise mind ACCEPTS (Activities, Contributing, Comparisons, Emotions, Pushing away, Thoughts, Sensations)
GIVE (be Gentle, act Interested, Validate, use an Easy manner)	Self-soothing through the senses (vision, hearing, smell, taste, touch; body scan)
Self-respect effectiveness	IMPROVE the movement (Imagery, Meaning, Prayer, Relaxation, One thing in the moment, Vacation, Encouragement)
FAST (be Fair, no Apologies, Stick to values, be Truthful)	Reality acceptance skills
Whether and how intensely to ask or say no	Radical acceptance skills
Supplementary interpersonal effectiveness skills	Turning the mind
Building relationships and ending destructive ones	Willingness
Skills for finding friends	Half-smiling
Mindfulness of others	Willing hands
How to end relationships	Mindfulness of current thoughts
Walking the middle path skills	Supplementary distress tolerance skills when the crisis is addiction:
Dialectics	Dialectical abstinence
Validation	Clear mind
Behavior change strategies	Community reinforcement
	Burning bridges and building new ones
	Alternative Rebellion and adaptive denial

Note: Copied from Linehan, M., (2014). DBT Training Manual. *New York, NY: The Guilford Press*

Table 2

Ethnicity Demographics

	Correctional		University	
Ethnicity	Frequency	%	Frequency	%
White	174	87	167	89.3
Black	13	6.5	9	4.8
Latina	1	.5	5	2.7
Native American	2	1	3	1.6
Bi-racial	10	5	3	1.6
Total	200		187	

Table 3

University Sample Academic Standing Demographics

University Sample	Frequency	%
First Year	83	44.4
Second Year	27	14.4
Third Year	39	20.9
Fourth Year	38	20.3
Total	187	

Table 4

Correctional Sample Offenses Demographics

Offense	Frequency	%
Violent	53	26.5
Drug Trafficking	66	33.0
Drug Use	65	32.5
DUI	10	5.0
Drug Related Offense	112	56.0
Weapon	14	7.0
Sexual	5	2.5
Property	49	24.5
Fraud	12	6.0
Kidnapping	2	1.0
Probation Violation	57	28.5
Other	72	36

Table 5

List of CAT-PD Items Comprising Each CAT-PD Scale Used

CAT-PD Trait	CAT-PD Item
Manipulativeness	20. Take advantage of others. 53. Cheat to get ahead. 86. Like to trick people into doing things for me. 120. Deceive people. 153. Have exploited others for my own gain. *185. Am an honest person.
Mistrust	2. Feel like people often are out to get something from me. 35. Feel that others are out to get me. 68. Believe that, sooner or later, people always let you down. 101. Suspect hidden motives in others. *135. Believe that people are basically honest and good. *168. Am pretty trusting of others' motives.
Emotional Detachment	19. Have difficulty expressing my feelings. 52. Think it's best to keep my emotions to myself. *85. Am open about my feelings. 119. Am not good at describing the emotions I feel throughout the day. 152. Have difficulty showing affection. *184. Am able to describe my feelings easily. 203.Am emotionally reserved.
Anger	14. Get angry easily. 47. Often feel overwhelmed with rage. 80. Get irritated easily. 114. Have a violent temper. *147. Am not easily annoyed. *180. Don't let little things anger me.
Self-harm	7. Have urges to cut myself. 40. Have thoughts of injuring myself. 73. Feel that cutting myself helps me feel better. 107. Frequently have thoughts about killing myself. 140. Have written a suicidal note. 213. I have intentionally done myself physical harm. 216. I have no will to live.
Exhibitionism	3. Love to be the center of attention. 36. Like to stand out in a crowd.

	69. Am likely to show off if I get the chance. 102. Use my looks to get what I want. 136.Enjoy flirting with complete strangers. *169. Don't enjoy being in the spotlight.
Fantasy Proneness	6. Sometimes get lost in my daydreams. 39. Sometimes have fantasies that are overwhelming. 72. Sometimes find myself in a trance-like state without trying. 106. Feel like my imagination can run wild. 139. Am sometimes so preoccupies with my own thoughts I don't realize others are trying to speak to me. 173. Sometimes have extremely vivid pictures in my head.
Affective Lability	1. Have frequent mood swings. 34. Lose control over my behavior when I'm emotional. 67. Have unpredictable emotions and moods. 100. Overreact to every little thing in life. *134. Know how to cope. *167. Can remain cool-headed when stressed out.
Anxiousness	10. Feel my anxiety overwhelms me 43. Am nervous or tense most of the time. 76. Panic easily. 110. Feel that my worry and anxiety is out of control. 143. Am generally a fearful person. 176. Am easily startled. *201. rarely worry.
Depressiveness	32. Tend to feel very hopeless. 65. Am sad most of the time. 98. Generally focus on the negative side of things. 132. Dislike myself. *165. Look at the bright side of life. *196. Rarely feel depressed.
Hostile Aggression	17. Am often out of revenge. 50. Am excited to inflict pain on others. 83. Get even with others. 117. Hurt people. 150. Will spread false rumors as a way to hurt others. 182. Am ready to hit someone when I get angry. 202. Like to start fights. 211. Enjoy a good brawl.
Non-Planfulness	33. Do things without thinking of the consequences. 66. Act without planning.

	99. Jump into things without thinking. *133. Am a firm believer in thinking things through. *166. Make careful choices. 197. Prefer to 'live in the moment' rather than plan things out.
Relationship Insecurity	28. Am always worried that my partner is going to leave me. 61. Am usually convinced that my friends and romantic partners will betray me. 94. Get jealous easily. 128. Usually believe that my friends will abandon me. 161. Am paralyzed by a fear of rejection. *192. Am secure in my relationships. *208. Generally trust in my partners to be faithful to me.
Risk Taking	27. Love dangerous situations. 60. Like to do frightening things 93. Get a thrill out of doing things that might kill me. 127. Would do anything to get an adrenaline rush. *160. Prefer safety over risk.

Note. Items marked with an asterisk signify CAT-PD items that are reversed scored within the corresponding CAT-PD scale.

Table 6.

Zero-Order Correlation and Regression Analyses in a Correctional Sample – AMPD Traits

Measures	*BPD Total*	*PDQ-4 BPD*	*Zanarini BPD*	*PAI BPD Total*	*PAI Affective Instability*	*PAI Identity Disturbance*	*PAI Negative Relationships*	*PAI Self-Harm*
	r/β	*r*/β	*r*/β	*r*/β	*r*/β	*r*/β	*r*/β	*r*/β
Affective Lability	.70* / .13	.63* / .14	.50* / .08	.68* / .13	.64* / .15	.65* / .24	.46* / .03	.34* / -.02
Anxiousness	.57* / .06	.44* / -.09	.46* / .09	.59* / .15	.49* / .02	.65* / .25*	.44* / .13	.23* / .08
Depressiveness	.58* / .06	.57* / .19	.45* / .01	.49* / -.04	.49* / .04	.53* / -.03	.35* / .00	.11 / -.14
Hostile Aggression	.47* / -.03	.46* / .01	.32* / -.06	.43* / -.03	.46* / .02	.24* / -.11	.22* / -.06	.38* / .04
Non-Planfulness	.44* / .14	.35* / .10	.27* / .43	.51* / .20*	.32* / .09	.35* / .05	.34* / .10	.56* / .39*
Relationship	.65* / .20*	.54* / .11	.50* / .19	.65* / .22	.46* / -.08	.67* / .33*	.58* / .35*	.30* / .13
Risk-Taking	.32* / .01	.25* / -.05	.25* / .05	.35* / .02	.18* / -.11	.20* / .00	.20* / .05	.50* / .16
Emotional	.35* / .09	.33* / .10	.27* / .05	.28* / .06	.27* / -.01	.33* / .10	.20* / .07	.07 / .04
Anger	.68* / .24*	.63* / .26*	.49* / .16	.63* / .17	.71* / .42*	.49* / -.03	.40* / .07	.31* / .04
Exhibitionism	.14 / .09	.15 / .12	.07 / .04	.17* / .07	.06 / -.05	.01 / .01	.15 / .14	.33* / .14
Fantasy Proneness	.51* / .12	.44* / .10	.37* / .08	.51* / .13	.47* / .15	.51* / .21*	.23* / -.07	.32* / .07
Manipulativeness	.37* / .04	.36* / .06	.24* / -.01	.38* / .06	.34* / .09	.24* / .03*	.16 / -.06	.40* / .11
Mistrust	.60* / .03	.52* / .02	.44* / .03	.60* / .06	.53* / .14	.53* / -.01	.52* / .18	.27* / -.13
Self-Harm	.50* / .19*	.47* / .16	.45* / .25*	.38* / .09	.39* / .12	.32* / .05	.16* / -.06	.27* / .13

*Note. r = Pearson correlation coefficient; β = Beta-Weights; PDQ-4 = Personality Diagnostic Questionnaire-4; PAI = Personality Assessment inventory; BPD = borderline personality disorder; * p < .001.*

Table 7.

Zero-Order Correlation and Regression Analyses in a University Sample - AMPD Traits

Measures	*BPD Total*	*PDQ-4 BPD*	*Zanarini BPD*	*PAI BPD Total*	*PAI Affective Instability*	*PAI Identity Disturbance*	*PAI Negative Relationships*	*PAI Self-Harm*
	r/β	*r*/β	*r*/β	*r*/β	*r*/β	*r*/β	*r*/β	*r*/β
Affective Lability	.72* / .20	.63* / .17	.60* / .18*	.72* / .19	.74* / .26	.62* / .15	.52* / .03	.38* / .16
Anxiousness	.63* / .05	.57* / .11	.50* / -.07	.64* / .09	.58* / .04	.62* / .12	.47* / .03	.35* / .14
Depressiveness	.70* / .15	.59* / .10	.66* / .18*	.66* / .12	.66* / .19*	.63* / .17	.55* / .17	.19* / -.23*
Hostile Aggression	.60* / .09	.54* / .15	.50* / -.02	.59* / .09	.64* / .17*	.43* / -.00	.42* / .09	.35* / .02
Non-Planfulness	.36* / .05*	.29* / .06	.32* / .16*	.36* / .09*	.22* / -.03	.23* / -.01	.27* / .10	.50* / .28*
Relationship Insecurity	.69* / .20*	.60* / .20*	.60* / .14	.69* / .20*	.54* / -.01	.70* / .34*	.59* / .22*	.35* / .11
Risk-Taking	.37* / -.01	.31* / -.01	.29* / -.07	.41* /.06	.33* / .02	.25* / -.03	.25* / -.01	.51* / .24*
Emotional Detachment	.37* / .05	.28* / .02	.39* / .10	.33* / .01	.30* / .02	.31* / .01	.23* / -.05	.30* / .09
Anger	.64* / .13	.57* / .12	.53* / .10	.63* / .13*	.74* / .29*	.48* / .00	.46* / .07	.19* / .01
Exhibitionism	.28* / .06	.25* / .06	.17* / .01	.34* / .10*	.21* / .02	.25* / .07	.25* / .09	.39 / .17*
Fantasy Proneness	.53* / .05	.47* / .06	.41* / .00	.56* / .08	.50* / .08	.51* / .14*	.42* / .07	.33* / -.07
Manipulativeness	.46* / .04	.39* / .01	.42* / .12	.43* / -.03	.44* / .03	.35* / .03	.25* / -.13	.34* / .01
Mistrust	.67* / .04	.53* / -.07	.62* / .11	.66* / .06	.59* / -.01	.58* / -.02	.57* / .19*	.31* / .01
Self-Harm	.58* / .15*	.49* / .11	.56* / .21*	.53* / .08	.52* / .08	.49* / .08	.41* / .04	.24* / .06

*Note. r = Pearson correlation coefficient; β = Beta-Weights; PDQ-4 = Personality Diagnostic Questionnaire-4; PAI = Personality Assessment inventory; BPD = borderline personality disorder; * p < .001.*

Table 8

Incremental Validity of Additional Traits in Assessing Total Borderline Traits in a Correctional Sample

Block	*R*	R^2	ΔR^2	*F*	*p*
1: DSM-5 BPD Traits	.81	.66			
2: Additional Traits	.86	.73	.08	7.47	< .001

Table 9

Incremental Validity of Additional Traits in Assessing Total Borderline Traits in a University Sample

Block	*R*	R^2	ΔR^2	*F*	*p*
1: DSM-5 BPD Traits	.87	.75			
2: Additional Traits	.88	.78	.03	2.85	*ns*

Table 10

Incremental Validity of Additional Traits in Assessing Borderline Traits Using the PDQ-4 in a Correctional Sample

Block	*R*	R^2	ΔR^2	*F*	*p*
1: DSM-5 BPD Traits	.73	.53			
2: Additional Traits	.78	.61	.08	4.97	< .001

Table 11

Incremental Validity of Additional Traits in Assessing Borderline Traits Using the PDQ-4 in a University Sample

Block	*R*	R^2	ΔR^2	*F*	*p*
1: DSM-5 BPD Traits	.75	.57			
2: Additional Traits	.76	.58	.02	1.15	*ns*

Table 12

Incremental Validity of Additional Traits in Assessing Borderline Traits Using the Zanarini in a Correctional Sample

Block	*R*	R^2	ΔR^2	*F*	*p*
1: DSM-5 BPD Traits	.60	.36			
2: Additional Traits	.66	.43	.07	2.96	<.001

Table 13

Incremental Validity of Additional Traits in Assessing Borderline Traits Using the Zanarini in a University Sample

Block	*R*	R^2	ΔR^2	*F*	*P*
1: DSM-5 BPD Traits	.76	.57			
2: Additional Traits	.79	.62	.05	3.23	<.001

Table 14

Incremental Validity of Additional Traits in Assessing Borderline Traits Using the PAI BPD Total in a Correctional Sample

Block	*R*	R^2	ΔR^2	*F*	*p*
1: DSM-5 BPD Traits	.80	.64			
2: Additional Traits	.83	.69	.05	3.84	< .001

Table 15

Incremental Validity of Additional Traits in Assessing Borderline Traits Using the PAI BPD Total in a University Sample

Block	*R*	R^2	ΔR^2	*F*	*p*
1: DSM-5 BPD Traits	.86	.74			
2: Additional Traits	.87	.76	.03	2.51	*ns*

Table 16

Incremental Validity of Additional Traits in Assessing Borderline Traits Using PAI Affective Instability Scale in Correctional Sample

Block	*R*	R^2	ΔR^2	*F*	*p*
1: DSM-5 BPD Traits	.70	.49			
2: Additional Traits	.78	.61	.12	7.87	< .001

Table 17

Incremental Validity of Additional Traits in Assessing Borderline Traits Using PAI Affective Instability Scale in a University Sample

Block	*R*	R^2	ΔR^2	*F*	*p*
1: DSM-5 BPD Traits	.84	.70			
2: Additional Traits	.86	.74	.04	4.09	< .001

Table 18

Incremental Validity of Additional Traits in Assessing Borderline Traits Using PAI Identity Problems Scale in Correctional Sample

Block	R	R^2	ΔR^2	F	p
1: DSM-5 BPD Traits	.78	.60			
2: Additional Traits	.81	.65	.05	3.40	<.001

Table 19

Incremental Validity of Additional Traits in Assessing Borderline Traits Using the PAI Identity Problems Scale in a University Sample

Block	R	R^2	ΔR^2	F	p
1: DSM-5 BPD Traits	.78	.61			
2: Additional Traits	.79	.63	.02	1.41	*ns*

Table 20

Incremental Validity of Additional Traits in Assessing Borderline Traits Using PAI Negative Relationships Scale in Correctional Sample

Block	R	R^2	ΔR^2	F	p
1: DSM-5 BPD Traits	.62	.38			
2: Additional Traits	.65	.42	.04	1.93	*ns*

Table 21

Incremental Validity of Additional Traits in Assessing Borderline Traits Using PAI Negative Relationship Scale in University Sample

Block	R	R^2	ΔR^2	F	p
1: DSM-5 BPD Traits	.67	.45			
2: Additional Traits	.70	.49	.04	1.83	*ns*

Table 22

Incremental Validity of Additional Traits in Assessing Borderline Traits Using PAI Self-harm Scale in Correctional Sample

Block	R	R^2	ΔR^2	F	p
1: DSM-5 BPD Traits	.66	.43			
2: Additional Traits	.69	.48	.05	2.33	<.001

Table 23

Incremental Validity of Additional Traits in Assessing Borderline Traits Using the PAI Self-harm Scale in a University Sample

Block	R	R^2	ΔR^2	F	p
1: DSM-5 BPD Traits	.66	.43			
2: Additional Traits	.68	.46	.02	1.10	*ns*