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Gender Differences in the Clinical Presentation of Borderline Personality Disorder: A Review

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CERTIFICATE OF APPROVAL

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Abstract

Borderline personality disorder is diagnosed in women three times more than men and represents a significant gender disparity amid considerable stigmatization compared to other psychological disorders. Empirical studies have investigated the gender prevalence for borderline personality disorder and further determined that findings may be due to differences in how borderline personality disorder clinically manifests in men and women. Common areas of investigation have included developmental features, diagnostic symptomology, psychiatric comorbidities, and the level of functional impairment for individuals with borderline personality disorder. An analysis of existing data was indicative of shortcomings in methods that include small samples of men, a lack of representative samples from non-clinical populations, differences in measurement and assessment, variations in reporting, and more. Research suggests that while some gender differences exist for borderline personality disorder, there are likely more similarities than differences in the clinical presentation of this disorder. Differences found may be due to bias and stereotypical differences between men and women, such as the tendency for men to engage in externalizing behaviors and for women to engage in internalizing behaviors. Conclusions from a critical review of research may indicate why the disorder is more commonly diagnosed in women, and further, may help to accurately understand the development, assessment, and treatment of borderline personality disorder.

GENDER DIFFERENCES IN THE CLINICAL PRESENTATION OF BORDERLINE PERSONALITY DISORDER: A REVIEW

DEDICATION

For Mommy, Wil, Shay, and Kennedy.

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I would first like to give praise and honor to God, for it is Him who equipped me with everything I needed to complete this project and never left me alone.

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TABLE OF CONTENTS

Page

CHAPTER I: BORDERLINE PERSONALITY DISORDER OVERVIEW

The assessment and treatment of psychiatric diagnoses have long been of interest to scholars and consumers of research to further the understanding of mental health. Epidemiological studies that have reported prevalence rates for psychiatric disorders have helped estimate what populations are affected and at risk. Research often discusses sex and gender[1] as important identifiers for psychiatric disorders, as these factors inform the relationship between the biology and behaviors of men and women and the manifestation of psychopathology. For personality disorders, the very behaviors that men and women portray are captured into diagnostic patterns, making it important to properly address the differences in gender prevalence and how disorders clinically manifest for men and women. Research on borderline personality disorder, in particular, has often presented gender disparities in prevalence rates, although with little explanation for if and why genders may differ in their clinical presentations. Therefore, this clinical research project addressed the topic of gender differences in borderline personality disorder (BPD) through a review of existing research to clarify if and what gender differences truly exist.

In this introduction and overview, the current BPD diagnosis in the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM–5; American Psychiatric Association, 2013) will be introduced along with a historical overview of the diagnosis, prevalence rates, gender disparities in prevalence rates, and possible explanations for these disparities, namely different forms of gender bias inherent in the diagnosis and assessment of BPD. The goal,

[1] While it is known that *gender* and *sex* have different meanings, the terms may be used interchangeably throughout this text to reflect the literature and does not reflect the writer's perspective of the distinction. Further, the reviewed literature does not address those who are non-conforming to a binary conceptualization of gender and are thus limited to individuals who identify as either male or female.

clinical rationale, and relevance of this clinical research project are presented before summarizing the research questions and outlining the methodology.

BPD in the DSM-5

BPD is characterized by an enduring and inflexible pattern of unstable interpersonal relationships, affective instability, disturbed sense of self, and impulsivity (American Psychiatric Association [APA], 2013). Symptoms also include chronic suicidality and self-injurious behavior and are typically present by early adulthood. In the latest version of the *DSM* (5th ed.; APA, 2013), BPD is included in personality disorder cluster B, which distinguishes individuals who tend to be dramatic, emotional, or erratic. Five of nine of the BPD criteria must be met to warrant a diagnosis. Later in the *DSM-5*, section III proposes an alternative dimensional approach for diagnosing personality disorders—an emerging model that has not been formally adopted for the *DSM*. This model offers a perspective of BPD that is characterized by one's level of functional impairment in the areas of identity, self-direction, empathy, and intimacy, as well as pathological traits including emotional lability, anxiousness, separation insecurity, depressivity, impulsivity, risk-taking, and hostility (APA, 2013). BPD can be quite a complex diagnosis for individuals to carry and can be difficult to accurately diagnose, as many of the symptoms overlap with other disorders such as bipolar disorder, post-traumatic stress disorder (PTSD), and other personality disorders such as antisocial personality disorder. Therefore, it is important to address relevant sociocultural issues, such as those related to gender, to improve the accuracy of the diagnosis and the effectiveness of treatment interventions.

History of the BPD Diagnosis

The term *borderline* came into use in the 1930s to describe an "in the middle" personality state between neurosis and psychosis (Al-Alem & Omar, 2008). Hoch and Polatin (1949)

classified borderline cases as a "pseudoneurotic form of schizophrenia" in which patients do not display delusions, hallucinations, or deterioration (p. 29). Since it became a part of the *DSM* in 1980, some features of the disorder have changed or been further developed. The *DSM-III* (1980) does not mention any predisposing factors for BPD, whereas the *DSM-5* (APA, 2013) references literature indicating a strong genetic component and the tendency for BPD to occur in individuals with identity problems. Formerly, Gardner et al. (1991) described anger as the core symptom of BPD; however, it is now understood that dysregulation of all emotions contributes to these individuals' difficulties (Linehan, 1993; Neacsiu & Linehan, 2014). A BPD diagnosis is now also classified in the criteria of the *DSM-5* (APA, 2013) as including the possible experience of transient, stress-related paranoid ideation, and/or severe dissociative symptoms. Additionally, the current *DSM* notes that the essential features of BPD must occur by early adulthood to meet the criteria. A significant detail that appears to remain consistent across all the *DSM* editions is that BPD is more commonly diagnosed in women (APA, 1980, 2013).

Prevalence of BPD

The *DSM-5* (APA, 2013) estimates the prevalence of BPD to range from 1.6% to 5.9% of the population. Further, it suggests that most individuals diagnosed with BPD are seen in inpatient psychiatric services, representing 20% of the prevalence, while 10% are seen in outpatient mental health services, and 6% percent are seen in primary care settings. The high utilization of psychiatric emergency and inpatient settings by those diagnosed with BPD likely accounts for the highest prevalence in psychiatric services given the self-injurious, crisis, and suicidal features of the disorder and may represent as much as 40% of psychiatric hospital utilizers (Comtois & Carmel, 2014). Prevalence rates often vary, likely due to differences in

methodology regarding the represented sample population assessed, operational definitions, and the use of valid instruments and surveys to diagnose BPD.

Zimmerman and Mattia (1999) conducted a study to determine the influence that a clinician's assessment approach has on the diagnosis of BPD. They found that the rate of BPD was significantly higher when clinicians used a structured interview to diagnose BPD compared to lower rates when an unstructured interview was conducted. This finding suggests that clinicians may fail to accurately diagnose BPD when solely using their judgment, which may be particularly noteworthy when comparing the differential gender prevalence rates for BPD.

Gender Disparities in BPD Prevalence Rates

Many personality disorders tend to have gender disparities in diagnosis, including antisocial personality disorder, BPD, histrionic personality disorder, dependent personality disorder, and obsessive-compulsive personality disorder (APA, 2013). Like BPD, histrionic personality disorder and dependent personality disorder reportedly often occur more frequently in women than men (Skodol & Bender, 2003). Women represent approximately 75% of individuals diagnosed with BPD (APA, 2013). Most studies have concluded that BPD more commonly occurs in women (Aggen et al., 2009; Sharp et al., 2014). However, a few studies have found that BPD more frequently occurs in men (Busch et al., 2016; Carter et al., 1999). Additionally, some studies indicate no significant differences in the rate of BPD in men and women (Grant et al., 2008). Some research suggests that the true gender prevalence of this disorder is unknown, due in part to differences in the clinical presentation of this disorder in men and women (MacIntosh et al., 2015; Skodol & Bender, 2003).

Diagnostic and Sampling Sex Bias

Several empirical studies have addressed these gender disparities in an attempt to examine whether women are truly more susceptible to developing BPD or if the gender differences in prevalence are due to various forms of bias. Widiger and Spitzer (1991) described the types of gender bias that could account for the gender prevalence of personality disorders, including diagnostic sex bias and sampling sex bias. Diagnostic bias, a differential prevalence in the misdiagnoses of a disorder (i.e., false-positive diagnoses and/or false-negative diagnoses), occurs in two types: criterion sex bias and assessment sex bias. Criterion bias can be built into the diagnostic criteria of a disorder, while assessment bias refers to the instruments used to diagnose the disorder. Sampling bias occurs when the presence of one sex outnumbers the other sex in a clinical setting and is reflected in the sample chosen to study prevalence in a disorder.

An argument for potential gender bias in the prevalence of BPD appears to have been first introduced by Kaplan (1983) regarding the *DSM-III*. She suggested that the diagnostic criteria for certain personality disorders were influenced by male experts who made assumptions based on sex stereotypes. Since then, several studies have addressed the question of gender bias for a diagnosis of BPD. In their 1994 study, in which clinicians were asked to rate BPD criteria for an equal number of female and male clients whose symptoms met criteria for BPD, Becker and Lamb (1994) found that clinicians rated female clients higher for the diagnosis than male clients. The authors suggested that prior base rates for the prevalence of the disorder likely influenced clinicians to over-diagnose BPD in women, further biasing the base rates. Skodol and Bender (2003) suggested that in studies of BPD, women are significantly over-represented in clinical samples compared to men and recommended that researchers use samples from the general population. Boggs et al. (2009) investigated the relationship between functional

impairment in men and women and the diagnostic criteria for BPD in subjects who were functioning at similar levels. Their results were indicative of gender bias and led them to conclude that the criteria for BPD "do not adequately represent the way in which BPD manifests in men" (p. 496). Yet, in recent studies, such as Braamhorst et al. (2015), that replicated the designs of earlier gender bias studies, gender bias was absent in non-ambiguous cases. This represents a historical difference in the data; however, the gender prevalence of the disorder remains the same. A review of these studies supports a hypothesis of inaccurate prevalence rates and, thus, inconsistent findings of gender differences for BPD.

While Widiger and Spitzer (1991) agreed that BPD may be a sex-biased disorder, they noted that the prevalence could also be due to biological, cultural, or social factors placing women at a higher risk. This includes, but is not limited to, child abuse or neglect, temperament, brain structure, parenting, and personality traits. In addition to investigating studies that may reveal gender bias, this review will also examine other influences that may account for differences in men and women with BPD.

Goal of Literature Review

This project includes a review of research that explores how borderline traits develop and manifest in men and women. The goal of this review is to improve the understanding of this disorder in terms of gender differences, which may increase the accuracy of diagnosis and treatment by clinicians.

Clinical Rational and Relevance

The term *borderline* is often observed to be one of negative connotations, given its controversial presentation (Al-Alem & Omar, 2008). Individuals with BPD often encounter many difficulties in receiving effective treatment and often continue to experience impairment

due to feeling hopeless and dropping out of treatment (Al-Alem & Omar, 2008; Neacsiu & Linehan, 2014). The significant difference between the prevalence of men and women with this diagnosis should be reviewed for accuracy. Not many recent studies have addressed the prevalence of and gender differences in individuals with BPD; those that do reach conclusions that vary greatly. Studies related to gender differences for those diagnosed with BPD have generally found differences in childhood experiences, symptomology, diagnostic comorbidities, and the level of functional impairment.

Research Questions

As such, the research questions covered in the following chapters are as follows: Do gender differences exist in the developmental features of BPD (Chapter III)? Do gender differences exist in the diagnostic criteria for BPD (Chapter IV)? Do gender differences exist for BPD and comorbid disorders (Chapter V)? Do gender differences exist in functional impairment for BPD (Chapter VI)? This review provides a cohesive summary of relevant literature regarding these questions and addresses any gaps in the literature regarding gender differences in BPD. To this end, the investigation of these research questions will be grounded in a biosocial theoretical model of BPD presented in Chapter II.

Methodology

This clinical research project (CRP) will provide a review of 17 empirically researched studies relative to these areas, as well as a necessary critique of the literature. Articles in this review were collected using ProQuest Central, PsycArticles, PsycINFO, EBSCO, and Google Scholar as search databases. Search terms used included *BPD, gender, sex, differences, review, men, male, women, female, development, comorbid, impairment, functioning,* and *criteria* (e.g., *suicidality, anger, dissociation*). To be included in this review, studies were required to address

gender and sex differences among individuals with BPD in the areas of development, diagnostic criteria, comorbidity, or functional impairment, or a combination of these variables. The studies needed to include a control or comparison group, and they had to have been published in a peer-reviewed journal. Sources obtained were generally written within approximately 10 years, although older sources were used to demonstrate the history of BPD, differences in patterns found over time, and lack of recent research. Studies that solely relied on qualitative data were excluded from the review. All included studies were critically reviewed regarding the recruitment and representativity of participants, diagnostic criteria, appropriateness of research design, and the resulting validity and generalizability of results.

In summary, BPD is one of several personality disorders that show significant disparities in prevalence rates between men and women, which has been discussed in the literature as potentially due to different forms of gender bias. The following chapters introduce a biosocial theoretical model of BPD before reviewing gender differences in developmental features, diagnostic criteria, comorbid disorders, and functional impairment; this study will conclude with a discussion of results.

CHAPTER II: BIOSOCIAL THEORY OF BPD

BPD has been widely studied and conceptualized in a range of different theoretical models. Those of which have focused on the development and patterns of behavior that maintains the dysfunction involved in BPD have included Kernberg's object relations model and theory (Kernberg 1976; Kernberg & Caligor, 2005), Fonagy et al.'s (2000) integrative attachment theory, and Judd and McGlashan's (2003) developmental model.

One of the most prominent theories that explain the development and clinical features of BPD is the biosocial model, first proposed by Marsha Linehan in 1993. Her theory is considered one of the most thorough models of borderline pathology (Al-Alem & Omar, 2008; Arens et al., 2011; Crowell et al., 2009; Reeves et al., 2010; Wolke et al., 2012) and underlies Linehan's dialectical behavior therapy (DBT), an empirically supported treatment for BPD (Neacsiu & Linehan, 2014). Despite some sources that have questioned empirical support for the theory (Gill & Warburton, 2014), they still report a significant relationship between the hallmark components of the biosocial theory. For these reasons, this theory will be used to conceptualize BPD in this review, although the model itself does not address gender.

This chapter will review the two components of the biosocial theory of BPD, vulnerability to emotion dysregulation and invalidating environment, and introduce how DBT approaches the treatment of BPD.

Linehan's Biosocial Theory

Linehan's biosocial theory suggests that biological and environmental components are involved in the development of BPD (Neacsiu & Linehan, 2014). She also suggested that individuals diagnosed with BPD in adulthood may be predisposed to developing symptoms of the disorder during childhood. More specifically, Linehan described how individuals diagnosed

with BPD develop and maintain difficulties due to their biological vulnerability to emotional dysregulation and their experience of an invalidating environment (Fiorillo & Fruzzetti, 2015). These components are transactional in nature and influence one another over time (Wagner & Linehan, 2006). Based on an overview of BPD, predisposed individuals may react more intensely in response to lower stress levels and take longer to emotionally recover from this state. When this stress sensitivity is met by an invalidating social environment, this may lead to further difficulties regulating their emotions, which can set in motion a negative feedback loop (Al-Alem & Omar, 2008).

Vulnerability to Emotion Dysregulation

Neacsiu and Linehan (2014) described BPD as a disorder of "pervasive emotion dysregulation" (p. 395) and suggested that most *DSM-5* criteria are indicative of modulating responses to emotional dysregulation, such as impulsivity, suicidal behavior, and affective instability. The theory proposes that individuals diagnosed with BPD are born with an emotional vulnerability, an elevated sensitivity that affects how they respond to emotional stimuli, as core to the development of the disorder. As such, their reactions to emotional cues are more intensified and enduring than the reactions of others, and it is more difficult for them to return their emotional state to baseline (Neacsiu & Linehan, 2014; Wagner & Linehan, 2006). This is due to the individual's innate lack of affective regulation skills for both positive and negative emotions (Neacsiu & Linehan, 2014). Attempts to avoid intense, adverse emotions lead to dysregulated behaviors (e.g., cutting) and are usually found to evoke more negative experiences (e.g., being punished by family; Crowell et al., 2009; Neacsiu & Linehan, 2014).

Some authors suggest that the etiology of dysregulation is related to biological factors, including genetic predisposition, neurochemical changes, dysfunction of the nervous system, or a

combination of these factors (Al-Alem & Omar, 2008; Crowell et al., 2009). Recent literature has suggested that imbalances in serotonin, and possibly dopamine, monoamine oxidase, and acetylcholine, may be implicated in the understanding of the development of emotion dysregulation behaviors, particularly aggression, affective instability, and impulsivity seen in BPD (Al-Alem & Omar, 2008; Crowell et al., 2009). Nevertheless, the biological system is undoubtedly affected by environmental factors that present throughout the lifespan (Crowell et al., 2009).

Invalidating Environment

As indicated, dysregulated emotion alone is not enough to fully explain why one may develop borderline traits. According to the biosocial theory, the invalidating environment occurs when one's private experiences are not appropriately tended to and are not interpreted as valid by others in their social environment. Instead, their experiences, behaviors, and emotional displays are rejected, oversimplified, or even punished by people around them (Fiorillo & Fruzzetti, 2015; Neacsiu & Linehan, 2014; Wagner, & Linehan, 2006). These environments can be within one's family, community, school, or work, and the invalidation can be manifested through verbal statements, neglect, and/or physical or sexual abuse (Neacsiu & Linehan, 2014; Wagner & Linehan, 2006). This invalidation prompts failure in one's ability to learn how to recognize their emotional response as valid. Neacsiu and Linehan (2014) described this as self-imposed invalidation.

Chronic and pervasive invalidation can lead to the development of an unstable sense of self and a longstanding, extreme need to be nurtured and self-assured (Al-Alem & Omar, 2008). When individuals with an emotional vulnerability are consistently ignored in early experiences, they fail to learn how to identify, label, and trust their emotions; as such, they heavily depend on

others to determine how to act, feel, and respond in a way that will be validated (Neacsiu & Linehan, 2014; Wagner & Linehan, 2006). When their emotions are punished or invalidated, they do not effectively learn how to communicate and develop a pattern of switching between inhibiting their emotion and reacting with extreme emotion. When the emotions of these individuals are oversimplified, they are not given the opportunity to learn how to solve problems and tolerate emotions that develop from difficult situations (Neacsiu & Linehan, 2014). They may therefore later develop into adults who view themselves as "unacceptable" and/or as "helpless victims" living in a dangerous society (Al-Alem & Omar, 2008).

In summary, the biosocial theory explains the relationship between emotional vulnerability and the invalidating environment and its influence on the symptoms displayed in an individual diagnosed with BPD. These components underlie the development and maintenance of emotional dysregulation and the difficulties that follow. This includes, but is not limited to, impulsivity, an unstable self-identity, and unstable interpersonal relationships. This theory will be used to organize and interpret studies about men and women diagnosed with BPD.

Dialectical Behavioral Therapy

While there are several effective treatment models for BPD, including transference-focused psychotherapy (Kernberg et al., 1972), mentalization therapy (Bateman & Fonagy, 2004), and schema-focused therapy (Young, 1990), DBT has received much empirical support (Bohus et al., 2004; Koons et al., 2001; Turner, 2000; van den Bosch et al., 2005; Verheul et al., 2003). Originally developed for chronically suicidal women diagnosed with BPD and other complex co-occurring problems (e.g., substance abuse, dysfunctional eating), DBT is now understood to treat numerous disorders of emotional dysregulation (Fiorillo, & Fruzzetti, 2015; Neacsiu & Linehan, 2014). Marsha Linehan developed this treatment model with influences

from several theoretical orientations, including cognitive-behavioral therapy, psychodynamic therapy, and client-centered therapy, as well as Zen Buddhist practices (Neacsiu & Linehan, 2014).

The biosocial theory, along with the dialectal and behavioral theories, provided the foundation for the development of DBT. While the biosocial theory explains how the relationship between emotional vulnerability and the invalidating environment influences the development of BPD, the dialectical theory informs the treatment of this disorder by using strategies to evoke both acceptance and change. Dialectics, a core piece of this model, refers to the middle ground between the two opposing forces of acceptance and change (Limandri, 2014; Neacsiu & Linehan, 2014). This theory suggests that reality consists of conflicting positions that are always changing. Rather than using blame of self or others to address the conflict, a common theme of borderline symptomology, the dialectical theory proposes that if one allows these forces to coexist by accepting the truth as both/and, the conflict can become a solution and lead to change (Neacsiu & Linehan, 2014; Wagner & Linehan, 2006). A DBT therapist promotes acceptance and change by gradually inviting the client to experience viewing situations in new ways. The therapist engages in persuasive dialogue with the client by often playing the so-called devil's advocate, using metaphors, and asking questions such as: What is being left out here? (Limandri, 2014; Neacsiu & Linehan, 2014). The goal of this strategy is to use the client's experience of discomfort to bring about acceptance and change.

DBT is a phase-oriented treatment that uses behavior management and skills training interventions to target emotional dysregulation. Treatment focuses on addressing problematic behaviors and replacing them with skills to help change ineffective thinking patterns and beliefs, improve interpersonal relationships, and help clients experience a life worth living (Limandri,

2014). Neacsiu and Linehan (2014) described the following stages. Stage one focuses on addressing life-threatening, treatment interfering, and quality of life interfering behaviors to gain behavioral control. In stage two, clients practice mindfulness, affect regulation, distress tolerance, and interpersonal effectiveness skills to increase the capacity for normative emotional experiencing. Stage three focuses on resolving other remaining problems and increasing the client's self-respect and self-reliance. Finally, stage four focuses on the client's self-efficacy, interdependence, and self-fulfillment. The client should then be able to regulate affect and behaviors without much help from the therapist.

In sum, BPD has been conceptualized in different theoretical models, with Linehan's biosocial model (1993) laying the groundwork for many theories and treatment approaches. The model proposes a vulnerability to emotion dysregulation, which is exacerbated by invalidating environmental responses, and suggests treatment in a phase-based approach, which first targets life- and treatment-threatening behaviors and moves on to affect regulation skills before increasing self-reliance and interdependence. The following chapters, which address the research questions of gender disparities in developmental features, diagnostic criteria, comorbid disorders, and functional impairment, refer to the biosocial model and its basic assumptions of a predisposed vulnerability to emotional dysregulation and invalidating environments.

CHAPTER III: GENDER DIFFERENCES IN DEVELOPMENTAL FEATURES OF BPD

The development of BPD is often studied to determine when features of the disorder can be noticed and reliably diagnosed. Developmental precursors for BPD have been proposed to appear as early as infancy and to become more apparent and clinically relevant by adolescence (Al-Alem & Omar, 2008; Crowell et al., 2009). The expectation is that one can display emotional regulation and self-control skills more independently as one matures. However, for those with BPD, deficits in these skills become more evident across development (Crowell et al., 2009; Stepp, 2012). The precursors for BPD are typically influenced by biological, social, and psychological factors, which may inform how the disorder develops similarly or differently between genders. Therefore, it is important to review the literature on developmental features of BPD, not only to help predict the diagnosis but to determine if differences exist in how BPD emerges in the course of development for men and women.

This chapter presents the traits and behaviors that predispose an individual to BPD across development and discusses how these factors manifest for men and women throughout their youth. The factors being reviewed that constitute a vulnerability to BPD will include personality traits, adverse childhood experiences, and attachment relationships. Further, the author will review and critique research that compares male and female children who display BPD symptoms and make claims regarding how and why men and women differ in prevalence upon receiving the diagnosis.

BPD Traits During Infancy, Childhood, and Adolescence

Most studies on the development of BPD tend to emphasize common risk factors, such as experiencing trauma, although some have focused on the characterological traits also involved in development. Research focused on early behavior patterns and traits displayed throughout the

infancy, childhood, and adolescent developmental periods of those later diagnosed with BPD often control for gender but rarely reports the differences in traits between male and female participants. The distinction between male and female developmental traits may be essential in determining why women present as more at risk of being diagnosed than men.

In a study by Crick et al. (2005), certain symptoms exhibited in a normative sample of children were found to increase the likelihood of a BPD diagnosis in adulthood. Researchers recruited a racially and economically (i.e., lower to middle class) diverse group of 400 fourth through sixth graders (215 girls, 185 boys) from public elementary schools in a large Midwestern city within the United States. Participants were a part of a larger sample in a study about the relationship between aggression and adjustment over time. Participants were administered the Borderline Personality Features Scale for Children (BPFS-C), a modified version of the Borderline Scale on the Personality Assessment Inventory (Morey, 1991), that examined the development of borderline personality features in children aged 9 years and older. This assessment was developed for the purpose of the study and was based on the developmental psychopathology theory that suggested the following domains as indicators of BPD: cognitive sensitivity (e.g., hostile, paranoid worldview), emotional sensitivity (e.g., intense, unstable, inappropriate emotion), friend exclusivity (e.g., overly close relationships), and relational and physical aggression (e.g., impulsivity). Students were assessed three times over one school year (fall of year 1, spring of year 1, fall of year 2) using a longitudinal design, and results were analyzed using a linear mixed model to determine the construct validity of the measure, the specificity of the measure to borderline features in childhood, the stability of borderline features over time, and gender differences in childhood borderline features.

The instrument used (i.e., BPFS-C) was determined to provide good construct validity and to reliably predict borderline indicators in children over the course of a year (Crick et al., 2005). The researchers found that all the above-mentioned domains (i.e., cognitive sensitivity, emotional sensitivity, friend exclusivity, and relational aggression) served as indicators that could predict BPD features over time (i.e., 1 year), except physical aggression, which is related to impulsivity (Crick et al., 2005). Significant findings related to the gender differences in scores on the BPFS-C in childhood revealed that girls exhibited an overall higher level of borderline personality features than boys. Specifically, girls displayed more cognitive sensitivity, emotional sensitivity, friend exclusivity, and relational aggression than boys. Findings for both boys and girls were found to remain moderately stable over time (i.e., one year), although girls exhibited a non-significant decrease in BPD features over the year compared to boys (Crick et al., 2005).

This study by Crick et al. (2005) was strengthened by the longitudinal design and large and similar number of female and male participants. Yet, there may not be enough evidence to support that gender differences in developmental cursors of BPD exist in childhood without further research across a longer time into adulthood. Crick et al. suggested adjustment problems as a strong indicator for girls who develop BPD in adulthood. However, they did not identify what, if any, biological, genetic, or environmental features may contribute to these findings. Additionally, this study was somewhat limited by its focus on only five features of BPD, excluding other BPD indicators such as a lack of sense of self or self-injury that could have later predicted the diagnosis. While the scale used to assess outcomes was found to demonstrate reliability and validity for this community sample of participants, results would need to be replicated in clinical and other community samples to increase confidence in the use of the measure. Furthermore, the authors noted that their findings on a non-clinical sample were in

"sharp contrast" to previous studies that used clinical samples and suggested that these previous studies were often "biased toward boys" who more often receive treatment compared to girls during childhood (Crick et al., 2005, p. 1066). Therefore, a likely strength of this study was its use of a normative sample rather than a clinical sample to limit the potential for biased findings.

Goodman et al. (2010) also set out to identify developmental symptoms that predict BPD in adulthood. Using the National Education Alliance for Borderline Personality Disorder website to attract participants, they requested parents to share their family's experience with BPD regarding early symptoms of the disorder in their children with BPD compared to their children without BPD. Researchers believed that a parental report would be less retrospective-bias-influenced than a self-report. Of 950 completed surveys, only 566 surveys were deemed usable after excluding those determined to have invalid, inconsistent, or inappropriate responses. Of note, for every 40 parents who identified having female children with BPD, 1 parent identified having a male child with BPD. Thus, only female children were studied (Goodman et al., 2010).

The internet survey was comprised of questions about the child's development, family history, and treatment history (Goodman et al., 2010). It included the McLean Screening Instrument for BPD (Zanarini et al., 2003a), a diagnostic screener found to have good specificity and sensitivity in its use with adolescents and young adults. Additionally, subjects who met the criteria for BPD, as determined by the screener, were also required to have been formerly diagnosed by a professional. Questions from the survey were divided developmentally into sections for birth, infancy/toddlerhood (less than 5 years of age), childhood (ages 5-13), and adolescence (ages 14-19) and inquired about unusual traits of the BPD offspring compared to their non-BPD siblings. Questions inquired about interpersonal problems, inability to self-soothe, difficulties during pregnancy/labor, developmental delays, academic difficulties, and behavioral

problems, with examples of the terms provided. In their analysis of data, the researchers included chi-square tests to identify gender differences at each developmental period (Goodman et al., 2010).

Findings indicated that of those surveyed, 321 female children were identified as having BPD, 87 of their female siblings were non-BPD, and the remaining female children who showed some BPD symptoms but did not meet the criteria for either group were excluded (Goodman et al., 2010). A significant number of female children with BPD were reported by a parent to display affective symptomology before age 5 with a significant difference for moodiness when compared to their non-BPD female siblings. Parents reported that their daughters with BPD continued to display affective symptomology (e.g., sensitivity, moodiness) and interpersonal difficulty (e.g., difficulty making friends, conflicts with authority) during childhood. During adolescence, female children with BPD presented with impulsivity, aggression, acting out, and self-destructive behaviors compared to their non-BPD siblings (Goodman et al., 2010).

Goodman et al. (2013) later addressed the gap in the commonly female-dominated literature on BPD by reporting early traits of male children diagnosed with BPD. In this study, they used the same methodology as in their 2010 study (i.e., internet survey, parent report, McLean screening instrument for BPD, chi-square data analysis) except for defining some terms in greater detail, the impact of which will be discussed later. The authors predicted that parents would identify their BPD sons as displaying affective symptoms during infancy and impulsive symptoms during childhood and adolescence compared to their non-BPD sons. Although 1,879 surveys were completed, only 263 surveys were found to be usable and applicable to male offspring. Analogous to the previous study in 2010, an assessment of BPD was determined by the McLean screening instrument for BPD (Zanarini et al., 2003a) and confirmation of a former

BPD diagnosis (Goodman et al., 2013). The researchers found that for the 97 sons diagnosed with BPD, parents described them as presenting with excessive separation anxiety, an inability to self-soothe, unusual sensitivity, and victimization (e.g., rape, assault) during infancy/toddlerhood compared to 166 non-BPD male siblings. Sons with BPD were observed by their parents to manifest impulsivity, lying, emptiness, and body-image concerns during childhood and to display impulsivity, body image issues, emptiness, and odd and unusual thinking during adolescence compared to their non-BPD siblings (Goodman et al., 2013).

By comparing and contrasting the two studies, it can be concluded that similar affective traits can be found in boys and girls who later are diagnosed with BPD during infancy and childhood, namely a propensity to display sensitivity and moodiness. In later childhood and adolescence, girls may develop more interpersonal difficulties, aggression, acting out, and self-destructive behaviors in addition to affective difficulties, while boys seem to develop issues with body image, lying, odd thinking, and identity. Both girls and boys displayed impulsivity during adolescent periods prior to being diagnosed with BPD (Goodman et al., 2010, 2013).

Both studies by Goodman et al. (2010, 2013) included several strengths, such as using an internet survey that effectively reached a large sample of participants and gathered parental observations of their children's behavior. However, parents who completed the survey were mostly White, well-educated, married women who accessed the site to seek treatment advice for their children with BPD. This limited the generalizability of findings to other populations of different ethnic or socioeconomic backgrounds, particularly those that could reflect a more accurate representation of families of individuals with BPD. The studies were also limited to parents who had children of the same gender, raising a question of sampling bias and eliminating the opportunity for other types of families with and without BPD offspring to participate. Despite

the authors' attempt to decrease retrospective bias in this study, findings were not based on a current or recent perspective of observed offspring difficulties and may have still been based on predictions made in hindsight. Additionally, parent reports of offspring behavior may reflect confirmation bias as parents could have overreported the dysfunction of their BPD offspring in such a way that reflects their diagnosis. Whereas the findings reported on BPD traits for boys (Goodman et al., 2013) and girls (Goodman et al., 2010) were found using the same methodology, it is unclear if the questions in both surveys addressed the same developmental precursors for both male and female children. Researchers indicated that terms such as *unusual sensitivity* and *victimization* were not defined in the study for female offspring, whereas these terms were defined in the later study for male offspring. This may have contributed to ambiguity about what the terms in the survey meant, and further, may make the two studies less comparable.

Adverse Childhood Experiences

Various types of adverse experiences during childhood have been studied to determine their etiological role in the development of BPD. Research on childhood abuse and neglect has typically dominated the literature, suggesting early trauma as a significant risk factor for the development of BPD. Empirical data often note the report of early traumatic events by individuals diagnosed with BPD and, as such, lend support to Linehan's invalidating environment as a contributing factor. However, few studies in recent years on BPD and trauma specifically account for gender differences. As such, the review of related studies below will span over two decades to provide the available literature on adverse childhood experiences, BPD, and gender.

Childhood Abuse and Neglect

While not always present, a history of childhood abuse and neglect has often been debated as a critical risk factor for BPD (Al-Alem & Omar, 2008; Crowell et al., 2009; Lieb et al., 2004). Studies indicated in a review have suggested that for those with BPD, as many as 25%-73% reported physical abuse, 40%-76% reported sexual abuse, and 92% reported neglect (Zanarini, 2000). Thus, these are relevant factors to explore in the development of the disorder but also propose a need to determine if there lie significant gender differences for those who report a history of childhood abuse and/or neglect.

Paris et al. (1994a, 1994b) investigated psychological risk factors associated with BPD through a series of retrospective studies on men and women. One of their studies focused on 18-48-year-old female patients formerly and currently being treated for personality disorders at a Canadian outpatient university hospital (Paris et al., 1994a). A sample of 150 female patients was identified as being eligible to participate after excluding those who held disqualifying diagnoses, had recovered from BPD, or presented with diagnostic ambiguity. The women were assessed for personality disorders using the well-validated Revised Diagnostic Interview for Personality Disorders (DIB-R; Zanarini et al., 1987) and a developmental interview that inquired about childhood histories of traumatic events, including sexual abuse (e.g., fondling, oral sex, penetration), physical abuse, and neglect (e.g., separation, loss) during the first 16 years of life (Paris et al., 1994a). Seventy-eight female patients were found to meet the criteria for BPD, leaving 72 female patients without BPD for comparison. All results for childhood sexual abuse, physical abuse, and neglect were scored dichotomously and analyzed using logistic regression for the two groups (Paris et al., 1994a).

Women with BPD reported a history of childhood sexual (70.5%) and physical abuse (73.1%) significantly more than non-BPD women (sexual abuse = 45.8%, physical abuse = 52.8%), with sexual abuse as the most significant risk factor to distinguish the two groups. Additionally, childhood sexual abuse was reportedly most perpetrated by siblings, other relatives, and non-relatives of females with BPD and occurred on multiple occasions by way of penetration. However, the authors noted that childhood sexual abuse was denied by several women with BPD and endorsed by approximately half of women without BPD, thus questioning the exclusivity of this factor to BPD (Paris et al., 1994a).

In a replicated study for male patients, Paris et al. (1994b) set out to determine if there would be different findings regarding childhood abuse and neglect for men with BPD. Researchers gathered a clinical sample of male patients at a university hospital and used the same inclusion criteria and methodology as their previously described study above (Paris et al., 1994a). However, the authors diverged from the methodology by using a newspaper advertisement to recruit more men, which was necessary to increase the number of subjects. Using the same instruments as in their previous study with women, the DIB-R (Zanarini et al., 1987) and a developmental interview, a total sample of 121 men (ages 18-48), 61 of whom were diagnosed with BPD, were studied. Results were scored dichotomously for men with and without BPD and analyzed using logistic regression (Paris et al., 1994b).

A significantly higher frequency of childhood sexual abuse (47.5%) and neglect (42.6%) was indicated for men with BPD than non-BPD men (childhood sexual abuse = 25.0%, neglect = 23.3%). Childhood sexual abuse was typically perpetuated by males who were non-relatives or strangers, in single incidents, by penetration and use of force, for the male BPD group. The

authors reported that over half of the male BPD sample did not report a history of childhood sexual abuse, while some non-BPD samples did (Paris et al., 1994b).

Findings by Paris et al. (1994a, 1994b) supported that childhood trauma is prevalent among clinical samples of individuals with BPD. In their studies, women with BPD reported a significant history of childhood sexual and physical abuse compared to women without BPD, while men with BPD more often reported childhood sexual abuse and neglect compared to men without BPD. Although these findings cannot be directly compared between gender, a review of the studies suggests that a history of childhood sexual abuse may be an indicative factor for both men and women who are later diagnosed with BPD. However, despite the commonality of sexual abuse as a developmental factor for women and men with BPD, this factor could also be associated with another psychopathology. Perhaps the parameters of the sexual abuse (e.g., perpetrator, frequency, method) may better distinguish between genders in addition to the endorsement of physical abuse or neglect. Furthermore, it is important to consider how reliable these results are given the retrospective nature of the studies and the generalizability when considering that samples of convenience were used (Paris et al., 1994a, 1994b).

Previously discussed studies by Goodman et al. (2010, 2013) also explored victimization in female and male children who were later diagnosed with BPD. They found that a history of sexual abuse was significant for men with BPD compared to their male siblings without BPD (34% vs. 6.6%; Goodman et al., 2013). However, in contrast to Paris et al. (1994a, 1994b), sexual abuse was not a significant predictor for female children later diagnosed with BPD compared to their non-BPD female siblings (Goodman et al., 2010). Even despite the limitations of these studies (e.g., potential sampling and retrospective bias, the question of generalizability and reliability of assessment), it remains difficult to ascertain whether differences truly exist

between genders without examining a direct comparison between men and women with BPD who report childhood trauma histories.

Johnson et al. (2003) set out to determine if gender differences existed for BPD across clinically relevant areas, including childhood trauma histories. Using a subset of data collected from a larger study (i.e., the Collaborative Longitudinal Personality Disorders Study), the authors studied participants from a range of clinical sites (e.g., inpatient hospital, outpatient hospital, medical outpatient) who were diagnosed with BPD. Participants from the original study were 18-45-year-olds, recently in treatment or treatment-seeking, and responded to posted notices about the study. Their demographics (e.g., race, socioeconomic status) were described as generalizable to most clinical settings (Johnson et al., 2003 as cited in Gunderson et al., 2000).

Using the Diagnostic Interview for DSM-IV Personality Disorders (DIPD-IV; Zanarini et al., 1996), an instrument found to demonstrate generally good interrater and test-retest reliability for BPD, 175 women and 65 men were found to meet the criteria for BPD (Johnson et al., 2003). Investigators used a combination of questions taken from the PTSD section of the Structured Clinical Interview for DSM-IV Axis I Disorders-Patient Version (SCID-I/P; First et al., 1996) and the Trauma Assessment for Adults (Resnick et al., 1996) to assess for childhood traumatic events (e.g., childhood sexual abuse, childhood physical abuse, childhood witnessing of abuse). Comparisons of childhood trauma between men and women with BPD were evaluated using *t*-tests (Johnson et al., 2003).

Johnson et al. (2003) did not find any significant differences in reported childhood abuse rates between women and men with BPD. Similar rates of childhood physical abuse (32.5% vs. 42.9%), sexual abuse (40.4% vs. 30.2%), and witnessing of abuse (19.0% vs. 29.2%) were indicated for women and men, respectively. The authors agreed that childhood abuse appears to

be a significant risk factor for developing BPD, as it was cited to be reported more in this population than in the general population (statistics not reported). However, a history of abuse was not unique to men or women with BPD. The authors promoted the reliance on other etiological factors, beyond a history of abuse, to determine if more meaningful differences exist between men and women for BPD development.

The results presented by Johnson et al. (2003) are meaningful but may not be generalizable to other BPD populations. Although the original study included a representative sample of participants, demographics for the participants in this study were mostly single and White, and significantly more women than men were sampled. Strengths of the study include the reliability of the assessments and gender comparison within the same study.

Childhood Attachment Relationships

The quality of child-parent relationships has also been found to significantly impact the risk of developing BPD before adulthood (Al-Alem & Omar, 2008; Zanarini, 2000), which provides support for the biosocial theory's core feature of the invalidating environment (Crowell et al., 2009; Neacsiu & Linehan, 2014). There is evidence that disturbed relationships with parents and dysfunctional family dynamics are often present for individuals with BPD. Particularly, people diagnosed with BPD perceive their relationships with their mother or father as being highly conflictual, distant, or characterized by overinvolvement, more often than non-BPD individuals (Zanarini, 2000). However, studies on gender differences related to maternal and parental relationships for individuals with BPD are few.

In previously mentioned studies by Paris et al. (1994a, 1994b), investigators used a popular instrument, the Parental Bonding Index (PBI; Parker, 1983), to determine current and former adult inpatients' perceptions of their parents' control and affection during their first 16

years of life. The PBI is a retrospective self-report measure that requires participants to rate the attitudes and behaviors (e.g., “Frequently smiled at me”, “Invaded my privacy”, “Did not praise me”) of their mother and father separately and was found to have good internal consistency and retest reliability. Using a *t*-test to compare average scores on the PBI, the study found that female subjects with BPD reported receiving less affection from their mothers throughout adolescence ($t = -2$) compared to non-BPD women (Paris et al., 1994a).

In the previously discussed study by Paris et al. (1994b) that compared male inpatients with and without BPD, researchers reported that the experience of a more controlling parenting style from fathers discriminated male participants with BPD ($t = 2.4$) from non-BPD men. Compared to other participants in inpatient settings without a personality disorder diagnosis, this leaves open the question of what the results might be in a sample of participants without a personality disorder diagnosis. However, the quality of parent-child relationships seems to be a significant risk factor specific to BPD compared to other personality disorders. Results between gender could not be directly compared, as they were not studied together, but the same author used identical methodology (e.g., inpatients, PBI, t-test), which suggest the quality of same-gendered relationships between child and parent as a factor that can distinguish between different genders diagnosed with BPD.

A study investigating parental rearing styles of individuals with BPD (Huang et al., 2014) found data on parental bonding patterns in North American populations to be inconclusive and set out to address this unsettled matter, but within the Chinese population specifically. This study took place at a prestigious mental health hospital in China, where approximately 300 participants were recruited from the outpatient psychology and psychiatry departments, as well as the hospital lobby. Participants were included if they were between the ages of 18 and 50, screened

out for any major psychotic disorder or organic brain disorder, and agreed to participate. Two hundred eighty-six subjects were assessed for BPD and other personality disorders by way of a clinical interview conducted by staffed psychiatrists, the Chinese version of the MSI-BPD (Wang et al., 2008; Zanarini et al., 2003a), as well as the Chinese version of the Structured Clinical Interview for DSM-IV Axis II disorders Screening Questionnaire (SCID-II; Dai et al., 2006)—both of which demonstrated good reliability and validity. Participants were grouped as having BPD, another personality disorder, or no personality disorder. Those who met the criteria for BPD (50 men, 102 women) were typically unmarried, college-educated, and diagnosed with comorbid depressive or anxiety disorders. All subjects were assessed for childhood parental rearing styles using the Chinese version of the Memories of Child Rearing Experiences (Perris et al., 1980), a retrospective self-report measure that inquired about paternal and maternal rearing patterns in the areas of emotional warmth, punishment, control, rejection, favoring of the subject, and overprotection. This measure also showed satisfactory reliability and validity. Given the multiple comparisons needed to compute results, data were analyzed using a chi-square test between gender, Fisher's exact test to obtain probability, multivariate analysis of variance to compare BPD and non-BPD groups, Scheffe's test for post hoc comparisons, and binary logistic regression to determine the strongest variable of a BPD diagnosis (Huang et al., 2014).

Results revealed that individuals with BPD scored higher on scales of punishment, rejection, and control by both parents, higher for overprotection by mothers, and lower for emotional warmth by both parents than non-BPD groups (Huang et al., 2014). Upon examining gender differences for the BPD group, Huang et al. discovered that men were more likely to experience punishment, rejection, and control by both parents than women. Additionally, men with BPD were more likely to report overprotection by their mothers compared to women with

BPD. Further, Huang et al. (2014) suggested that receiving maternal emotional warmth could decrease the likelihood of a BPD diagnosis overall.

This study by Huang et al. (2014) was one of solid methodology and helped contribute to the lack of literature that discusses gender differences in attachment relationships for individuals with BPD. Its specificity to Chinese outpatients raises consequential limitations of generalizability in a U.S. context, although the findings were reported to be similar to findings in North American studies (e.g., Zweig-Frank & Paris, 1991). The Chinese culture is typically perceived as more collectivistic, hierarchical, and disciplined than Western cultures (e.g., North America). Additionally, parenting styles may be more authoritarian (Hofstede, 2001) and may differ based on the gender of the child and the child's expected role (Festini & De Martino, 2004). Cross-cultural factors further promote the need for replicated U.S. studies to enhance the lack of literature on gender differences in parenting styles for BPD.

Summary

Features of BPD have been said to appear throughout early development for individuals diagnosed with BPD and have helped predict its diagnosis. A closer examination of these developmental features was necessary to determine how they are presented in men and women and whether they are suggestive of true gender differences or other factors. The authors of the reviewed studies investigated gender differences in personality traits, adverse childhood experiences, and attachment relationships of individuals with BPD, but findings have not always been consistent or evident of gender differences.

In addressing personality traits that resemble features of BPD, the literature (i.e., Crick et al., 2005; Goodman et al., 2010, 2013) suggested that one can expect to see traits emerge in early developmental periods for both men and women. These traits may be suggestive of a propensity

for developing the disorder in adulthood, but the lack of longitudinal studies makes any definitive statement impossible at this time. Affective traits were displayed in men and women with BPD as early as infancy (Goodman et al., 2010, 2013). Yet, later into childhood and adolescence, women were found to develop more interpersonal difficulties, aggression, acting out, and self-destructive behaviors in addition to the affective issues and impulsivity seen in both genders (Goodman et al., 2010), while males transitioned to issues with body image, identity, lying, emptiness, emptiness, and odd thinking (Goodman et al., 2013). Girls who are prone to BPD were found to display more cognitive sensitivity, emotional sensitivity, friend exclusivity, and relational aggression compared to boys (Crick et al., 2005). However, more studies that directly compare BPD traits and gender over a longer period (i.e., into adulthood) are needed to confirm these findings.

Results on adverse childhood experiences such as neglect and abuse also lend support to the potentiation of later developing BPD (Goodman et al., 2010, 2013; Johnson et al., 2003; Paris et al., 1994a, 1994b). However, findings generally suggest that abuse is not always indicated, nor is a report of abuse sufficient on its own for a diagnosis of BPD. Although early experiences of abuse may be an important contributing factor for BPD, it likely needs to be combined either with predisposing genetic, characterological factors, or further environmental factors (e.g., lack of support, mismatch with parents) to lead to the diagnosis (Johnson et al., 2003). Additionally, there is a lack of studies addressing emotional and psychological abuse, which could also contribute to an invalidating environment, according to Crowell et al. (2009).

Studies support that parenting style and child-parent attachment relationship have significant effects on the BPD diagnosis (Huang et al., 2014; Paris et al., 1994a, 1994b). Women were found to typically report low maternal affection (Paris et al., 1994a), and men typically

reported controlling parenting styles from fathers (Paris et al., 1994b). Chinese men with BPD were also discovered to experience punishment, rejection, and control by both parents and overprotection by their mothers, more than Chinese women with BPD when compared directly (Huang et al., 2014). However, findings by Huang et al. (2014) may be indicative of cross-cultural differences that may require further study to determine if similar gender differences are displayed in other cultures. These findings may suggest that the quality of parent-child relationships, particularly when the parent is the same gender as the child, may be a key factor in distinguishing men and women diagnosed with BPD. However, it is important to consider that these studies were based on perception and lacked information to corroborate a retrospective self-report. One cannot truly determine whether self-report reflects biases because of receiving a BPD diagnosis.

Overall, conclusions that emerged from these limited studies indicated the need for more longitudinal and follow-up studies to determine if the developmental precursors displayed throughout childhood emerge into BPD in adulthood to help us further flesh out why women are more often diagnosed.

CHAPTER IV: GENDER DIFFERENCES IN DIAGNOSTIC CRITERIA OF BPD

As aforementioned, most of the recent literature addressing the clinical presentation of BPD typically includes data on women, and fewer studies focus on BPD similarities and differences between genders. Consequently, data on BPD features endorsed by men are often unaccounted for. Research that does address the endorsement of BPD diagnostic criteria for men and women has found inconsistent results. Thus, it had been difficult to determine if true gender differences exist. As the following chapter shows, several recent studies that sampled both men and women found very few gender differences for BPD symptomatology, while some studies found none.

The current *DSM* (APA, 2013) provides the following definition and diagnostic criteria for BPD:

> A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:
>
> 1. Frantic efforts to avoid real or imagined abandonment.
> 2. A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation.
> 3. Identity disturbance: markedly and persistently unstable self-image or sense of self.
> 4. Impulsivity in at least two potentially self-damaging areas (e.g., spending, sex, substance abuse, reckless driving, binge eating).
> 5. Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior.

6. 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).
7. Chronic feelings of emptiness.
8. Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights).
9. Transient, stress-related paranoid ideation or severe dissociative symptoms. (p. 663)

This chapter investigates studies that set out to examine gender differences for BPD diagnostic criteria endorsed, including findings for which criterion was more often endorsed by women and by men, and provides suggestions for what may account for discrepancies in findings. Older studies that report findings based on the previous *DSM-IV* are consistent with the *DSM-5* criteria for BPD. However, due to a lack of significant findings, some diagnostic criteria for BPD are not represented in this review (i.e., frantic efforts to avoid abandonment, a pattern of unstable interpersonal relationships) and thus can be interpreted as unknown regarding gender differences in the presentation of BPD (see Table 1).

Table 1

Significant and Non-Significant Findings for BPD Diagnostic Criteria Studies

Article	BPD Criteria								
	Frantic efforts to avoid real or imagined abandonment	A pattern of unstable and intense interpersonal relationships	Identity disturbance	Impulsivity in at least two potentially self-damaging areas	Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior	Affective instability due to a marked reactivity of mood	Chronic feelings of emptiness	Inappropriate, intense anger or difficulty controlling anger	Transient, stress-related paranoid ideation or severe dissociative symptoms
Aggen et al., 2009	—	—	—	**M>W**	—	**W>M**	—	—	—
Benson et al., 2017	—	—	—	—	—	—	**W>M**	—	—
Busch et al., 2016	—	—	—	—	—	—	—	**M>W**	—
Johnson et al., 2003	—	—	**W>M**	—	—	—	—	—	—
McCormick et al., 2007	—	—	—	—	—	—	—	—	**W>M**
Sharp et al., 2014	—	—	—	**M>W**	—	—	—	**M>W**	—
Tadic et al., 2009	—	—	—	—	—	**W>M**	—	**M>W**	—

Note: — = nonsignificant finding; W = women; M = men

Identity Disturbance

The *DSM-5* (APA, 2013) defined the criterion of identity disturbance as "markedly and persistently unstable self-image or sense of self" (p. 663). According to the biosocial theory, an individual's sense of self is developed by observing how others react to them. Consistent, predictable reactions from others are often necessary for healthy identity development; however, those who endorse identity disturbance have likely encountered unpredictable emotions and behaviors from others and have consequently learned to identify themselves as inadequate—leading to a poorly developed self-image (Linehan, 1993; Neacsiu & Linehan, 2014).

A previously discussed study that set out to further prior research (i.e., Collaborative Longitudinal Personality Disorders Study) on gender differences in BPD explored how specific BPD criteria were endorsed by men and women (Johnson et al., 2003). Johnson et al. (2003) reliably assessed and diagnosed a sample of 175 women and 65 men from multiple inpatient and outpatient sites with BPD using the DIPD-IV (Zanarini et al., 1996). Of all nine criteria, the authors found a significant difference only for the criterion of identity disturbance. Specifically, women with BPD endorsed identity disturbance significantly more often (67.4%) than men (47.7%) with BPD. Further, men and women did not differ in the average number of BPD criteria endorsed (M = 6.73, 6.31; Johnson et al., 2003).

Based on these findings, Johnson et al. (2003) suggested there were few differences between men and women in their clinical presentation of BPD. Although methods used in this study were generally strong and reliable, results may not be generalizable to other non-treatment-seeking populations. While the original study (i.e., the Collaborative Longitudinal Personality Disorders Study) was longitudinal, this study failed to discuss findings on the course of identity disturbance in BPD. No other study to date has reported significant gender differences for the BPD diagnostic criterion of identity disturbance (Aggen et al., 2009; Benson et al., 2017; Busch et al., 2016; McCormick et al., 2007; Sharp et al., 2014; Tadic et al., 2009).

Impulsivity

Regarding impulsivity, the *DSM-5* specified that to meet this criterion, the individual must display impulsive behavior in at least two areas that are potentially self-damaging (APA, 2013). Examples of impulsive acts are provided for this criterion in the areas of spending, sex, substance abuse, reckless driving, and binge eating, and have likely shaped clinicians' perspectives of the types of impulsive acts for which to assess. Crowell et al. (2009) suggested

that the display of difficult emotions is reinforced within an invalidating environment and communicate whether emotions should be coped with internally or externally. Some literature has reflected that women are more likely to internalize impulsive behaviors while men are more likely to externalize, suggesting a qualitative difference in how impulsivity manifests by gender (Skodol & Bender, 2003; Zlotnick et al., 2002). The following studies report significant findings for men and women in the display of impulsive behavior for BPD.

Johnson et al. (2003) revealed a unique finding for men and women diagnosed with BPD in displaying trait, but not diagnostic, impulsivity. In addition to using measures to assess BPD criteria, the researchers also assessed personality traits using the Schedule for Non-Adaptive and Adaptive Personality (SNAP; Clark et al., 1993). The SNAP is a self-report measure developed using diagnostic personality dimensions and trait and temperament scales (e.g., entitlement, detachment, impulsivity, disinhibition, negative temperament, distrust) to identify traits associated with personality disorders and has been found to have good internal consistency and test/retest reliability.

Findings by Johnson et al. (2003) suggested that men and women displayed the trait of impulsivity equally, as there were no significant differences found for how often this trait was endorsed on the SNAP (Clark et al., 1993). Additionally, men and women appeared to equally endorse the diagnostic criterion of impulsivity on the DIPD-IV (87.7% vs. 79.4%; Zanarini et al., 1996). This further supports the authors' suggestion that men and women display more similarities than differences in their clinical presentation of BPD (Johnson et al., 2003).

A study with Norwegian twins demonstrated measurement invariance for the diagnostic criteria for BPD (Aggen et al., 2009). Measurement invariance captures the idea that the same construct is being measured regardless of specified groups. When measurement invariance is

tested for the criterion of a disorder such as BPD, one would expect to equally observe characteristics of the disorder across male, female, and age groups. Researchers investigated this by recruiting a large sample of monozygotic, dizygotic, and single respondent twins from the Norwegian Institute of Public Health Twin Panel and the National Medical Birth Registry of Norway (Aggen et al., 2009). Of more than an initial 3,000 pairs, the final sample contained 1,022 male and 1,772 female participants, between 19 and 36 years of age, who responded and were willing to be interviewed. The authors used the Structured Interview for DSM-IV Personality (SIDP-IV; Pfohl et al., 1997), found to have good interrater reliability in non-treatment-seeking populations (Jane et al., 2006), to rate symptoms of BPD that were subthreshold, present, or strongly present and persistent for at least 5 years for the participants. A confirmatory factor analysis was conducted to measure whether the BPD criteria is equally present across gender (Aggen et al., 2009).

Results reported by Aggen et al. (2009) indicated that women had an overall higher level of BPD symptomology compared to men within this population. Of all nine criteria, impulsivity was the least discriminating for men and women with BPD, meaning there was a low degree to which impulsivity reflected the likelihood of a BPD diagnosis. Men in this sample endorsed impulsivity more often; however, investigators also found a sex-age interaction for impulsivity for women within the sample. Specifically, younger women were found to endorse impulsivity more often than older women. The endorsement of impulsivity in younger women was not a strong indicator for the disorder. Rather, impulsivity became a better predictor of BPD for women as they increased with age (Aggen et al., 2009).

Findings by Aggen et al. (2009) were strengthened by using a thorough assessment, a large number of participants, and the evaluation of a community sample. Yet, results were

specific to Norwegian twins and may not generalize to other populations. Though differences reported on age were valuable, the sample included a rather young age group (i.e., 19-36 years), further raising a question of the study's ability to accurately detect results and report generalizable results to other populations (e.g., older samples). Findings indicate that impulsivity does not appear to have the same meaning across sex, as well as age, and may lead to problems in measurement. Researchers suggested that future studies should be aware of these findings concerning age and sex interactions and BPD when examining the criterion of impulsivity. Particularly, because the BPD criterion of impulsivity was not found to be an equal predictor for men or women, then the current higher rates of BPD in women may not be attributed to true differences between gender. Further, the *DSM* committee may need to consider improving the definition and examples used to describe impulsive behavior to decrease the potential of gender or age bias in the phenotype for the impulsivity criterion.

Similarly, Sharp et al. (2014) found impulsivity to stand out among other BPD criteria in their study. The sample examined in their study consisted of 376 male and 371 female inpatient participants recruited from a private psychiatric hospital, the bulk of whom were White and averaged 33 years of age. Patients were engaged in intensive multimodal treatment and were included in the study regardless of comorbidity or severity. However, of the 123 patients who met the criteria for BPD, neither the number of male and female subjects nor their race or age demographics were reported. Participants were diagnosed using the commonly utilized, well-validated, and reliable Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II; First et al., 1997). Researchers searched for potential criterion bias using item response theory to detect differential item functioning. The authors defined differential item functioning as the ability to show whether different groups with the same trait had the same probability for item

endorsement. An analysis was conducted using first a chi-square test to display gender differences in the frequency of BPD, followed by item response theory models (i.e., goodness of fit, 2-parameter logistic item response model for probability, item anchoring, and Wald test to determine the significance of variables; Sharp et al., 2014).

Findings by Sharp et al. (2014) demonstrated that women more frequently met the full criteria for BPD (21%) than men (12%). Specifically, women more often met six of nine criteria, and the remaining criteria (i.e., impulsivity, chronic feelings of emptiness, and paranoid ideation) were equally endorsed across gender. The results of the differential item functioning analysis of the BPD criteria revealed that gender invariance was indicated for most of the BPD criteria, suggesting that the criteria were measured the same for both men and women. However, for questions related to impulsivity (i.e., "Have you often done things impulsively?"), clinicians were more likely to assign this criterion to men with lower levels of BPD and women with higher levels of BPD.

Based on the results of their study, Sharp et al. (2014) propounded a biased application of diagnostic criteria and gender bias for the criterion of impulsivity. The authors suggested that clinicians likely consider certain impulsive behaviors listed in the *DSM* (e.g., substance abuse, reckless driving) as stereotypically masculine behaviors and that this could lead to over- or underdiagnosing the disorder for men or women. The authors subsequently called attention to the importance of operationally defining *DSM* criteria (Sharp et al., 2014). Though this finding was one of importance, this study was not without limitations that included using a sample of convenience and lack of exclusion criteria for participation. Additionally, demographics for the BPD sample that was investigated were not discussed, although one can assume it was not diverse given the demographic information provided for the larger sample, and therefore,

findings may not be generalizable. A review of other studies indicated that men and women did not statistically differ in the endorsement of the impulsivity criterion (Benson et al., 2017; Busch et al., 2016; Johnson et al., 2003; McCormick et al., 2007; Tadic et al., 2009).

Suicidal and Self-Mutilating Behavior

The biosocial theory of BPD suggests that those raised in invalidating environments are often at an increased risk for engaging in self-destructive behaviors (Al-Alem & Omar, 2008; Linehan, 1993). Individuals with BPD often initially present to treatment for engagement in suicidal behaviors (Lieb et al., 2004). Common behaviors include suicide threats, suicide attempts, cutting, burning, and other acts of self-destruction. Additionally, up to 10% of those diagnosed with BPD complete suicide (APA, 2013). It is widely known across cultures that men more often complete suicide compared to women ("Web-based injury statistics," 2020). Conversely, women more often report suicidal ideation and engage in nonfatal suicidal behavior, known as the "gender paradox of suicidal behavior" (Schrijvers et al., 2012). No study available exhibited a significant difference between gender for the criterion of recurrent suicidal behavior and gestures, threats, or self-mutilating behavior in BPD. However, the following study was reviewed to demonstrate a gender-related discrepancy in suicidal behaviors between the general population and within a BPD sample.

Silberschmidt et al. (2015) investigated overall symptomology in a cross-cultural sample of men and women with BPD. The authors intended to prevent limitations of small sample sizes comprised of majority women, and therefore they recruited and diagnosed a sample of 559 women and 211 men with BPD who were between the ages of 18 and 65 from over 100 outpatient sites (e.g., hospitals, outpatient clinics, academic centers, research facilities). Participants responded to clinical referrals and community advertisements in multiple countries

(e.g., Argentina, Belgium, France, Germany, Norway, Peru, Romania, United States) to be a part of a 12-week, double-blind, randomized, placebo-controlled clinical trial to examine the use of atypical antipsychotic medication for BPD. Strict exclusion criteria were used to prohibit the participation of those with most axis I disorders, severe psychotic disorders, cluster A personality disorders, and active suicidality. Using the DIPD-IV (Zanarini et al., 1996), SCID-I (First et al., 1996), and Zanarini Rating Scale for BPD (ZAN-BPD; Zanarini et al., 2003b), the authors reliably assessed for BPD. The ZAN-BPD is a clinician-administered scale for BPD pathology found to demonstrate excellent discriminant validity, internal consistency, and test-retest/interrater reliability for nonpsychotic samples. The Overt Aggression Scale-Modified (OAS-M; Coccaro et al., 2000), a semi-structured interview, was additionally used to measure aggression, irritability, and suicidality. Results for comparisons of gender and BPD symptomology were analyzed using a Pearson's chi-square test (Silberschmidt et al., 2015).

Silberschmidt et al. (2015) failed to find significant gender differences on measures of suicidality for their BPD sample. This finding was supported by several other studies that reported non-significant results when suicidality/self-mutilating behavior was assessed in men and women with BPD (Aggen et al., 2009; Benson et al., 2017; Busch et al., 2016; Johnson et al., 2003; McCormick et al., 2007; Sharp et al., 2014; Tadic et al., 2009). This result challenges a finding based on the general population that reported a higher rating of suicidal behaviors for women (Schrijvers et al., 2012) and lends support to the notion that the differences between men and women with BPD may not be as significant as they are within the general population. However, despite the strong methods of the study that included a large sample of men, cross-cultural subjects, and randomization, the exclusion criterion eliminated those who were actively suicidal, which may have contributed to the lack of significant results.

Affective Instability

Affective instability can often present as intense episodic dysphoria, irritability, or anxiety (APA, 2013). To date, most studies that report significant gender differences for the criterion of affective instability have not been based on populations within the United States. In a 2009 study, Tadic et al. examined the prevalence of BPD diagnostic criteria in former inpatients in Germany. Researchers reached out to former inpatients diagnosed and treated for BPD across several psychiatry clinics in Germany. Of those who met the exclusion criteria (i.e., cognitive impairment, psychosis, legal issues, not of Caucasian descent), a total of 159 subjects (110 women and 49 men) with BPD were evaluated. The authors used the German version of the SCID-II Personality Disorders (Wittchen et al., 1996) to reassess BPD, which was indicated to have the same psychometric properties as the English version (First et al., 1997). Men and women were compared regarding the average number of BPD criteria met using a two-tailed *t*-test and regarding the frequencies of BPD diagnostic criteria using Pearson's chi-squared test and Fisher's exact test (Tadic et al., 2009).

Findings indicated that men and women did not differ in the overall number of endorsed criteria for BPD (range 5-9). However, findings related to specific criteria showed that women with BPD displayed a higher frequency of affective instability than men (93.6% vs. 81.6%). Tadic et al. (2009) further explained their results by suggesting that women were more likely to internalize their emotions. This study was limited to White, German individuals previously treated for BPD, which raised concerns that the results were not generalizable to other populations. Additionally, the extent to which criteria were endorsed at the time of the study may have been different at other times, considering that the examined sample was already treated for BPD. However, at least one other previously discussed study supported Tadic et al. (2009),

suggesting that women with BPD more often reported affective instability than men in a young community sample of Norwegian twins (Aggen et al., 2009). Yet most studies that investigated gender differences for affective instability conversely reported non-significant findings for men and women with BPD (Benson et al., 2017; Busch et al., 2016; Johnson et al., 2003; McCormick et al., 2007; Sharp et al., 2014).

Chronic Feelings of Emptiness

The BPD criterion of chronic emptiness has drawn limited empirical investigation. An attempt to clarify the meaning of emptiness found most adults with BPD relate their chronic feelings of emptiness to hopelessness, loneliness, isolation, and other affective states that are negative and low in arousal (Klonsky, 2008). Most studies found similar frequencies of endorsement of this criterion for men and women with BPD (Aggen et al., 2009; Busch et al., 2016; Johnson et al., 2003; McCormick et al., 2007; Sharp et al., 2014; Tadic et al., 2009). However, Benson et al. (2017) found the experience of chronic feelings of emptiness to differ for men and women when they investigated potential bias in BPD diagnostic criteria. Rather than only examine a sample of men and women with BPD, this study recognized the unique need to assess for bias on the clinician's approach to diagnosing BPD to better explain gender differences in prevalence. A sample of 337 psychologists, psychiatrists, and other mental health professionals with substantial experience (i.e., an average of 19 years) was recruited online through multiple professional organizations. The clinicians were equally divided between women and men. A survey required the clinicians to report the demographics, general clinical judgment, and BPD criteria from sections II and III (alternative model) of the *DSM-5* for one of their patients with BPD. The authors used differential item functioning models (i.e., linear regression, latent variable modeling) to analyze data from the survey specifically related to the

gender of the sample of patients, who were also equally represented in gender (Benson et al., 2017).

A review of results reported by Benson et al. (2017) revealed that more clinicians indicated their female patients as meeting more BPD criteria compared to those clinicians who reported on their male patients. The specific criterion of chronic feelings of emptiness was the only criterion most related to women across diagnostic models for BPD (69.79% *DSM-5* section II, 58.33% *DSM-5* section III) compared to men (42.07% *DSM-5* section II, 34.48% *DSM-5* section III). Based on these results, the authors suggested criterion bias as an explanation for why it is easier for women to meet this criterion. It may also be important to consider clinician bias, as the criteria were informed by the clinical judgment of clinicians about their patients. This study was strengthened by its large, wide-casted, and an equally gendered sample of clinicians and patients. Authors considered both diagnostic models of BPD and found similar data for both, strengthening the use of the current and alternative models of the *DSM*, as well as the use of multiple statistical methods (i.e., latent variable modeling and multiple regression) to confirm results (Benson et al., 2017).

Anger

Anger has been a commonly investigated feature of BPD, with particularly slanted findings for the clinical presentation of anger when comparing gender. According to *DSM-5* criteria for BPD (APA, 2013), the expression of anger must be inappropriate, intense, and/or difficult to control. Anger is often presented in the form of verbal outbursts, physical fights, bitterness, or sarcasm in response to perceived invalidation, followed by a slow return to one's emotional baseline—a reaction that the biosocial theory refers to as emotional dysregulation (Neacsiu & Linehan, 2014).

A review of recent literature on the presentation of anger in the BPD population revealed generally similar findings, many of which suggest bias as the likely grounds for gender differences in BPD features. Busch et al. (2016) assessed BPD criteria across gender with a specific intent to control for sampling bias, assessment bias, and reporting bias in their study. The authors suggested that because many studies are limited in their ability to generalize results and due to the categorical issues within the diagnostic framework for BPD, important information about what features are present in what groups are unknown. They proposed that their study would be successful by including multiple perspectives (i.e., self and informant reports), a proportional and representative sample of men and women, and both dimensional and item-level analysis for BPD criteria (Busch et al., 2016).

Participants were selected from an existing longitudinal study (i.e., St. Louis Personality and Aging Network) within the community who were recruited by telephone and were considered eligible if they provided an informant (Busch et al, 2016). The 1,360 dyads included participants and their informants (e.g., romantic partners, family members, friends) who were equally gendered (55% women), between ages 55 and 64, and racially representative and diverse. Participants were measured using the Multisource Assessment of Personality Pathology (MAAP; Oltmanns & Turkheimer, 2006), a self-report measure of randomized traits associated with personality disorders from the perspective of multiple individuals. The MAPP has been shown to have good internal consistency and test-retest reliability (Okada & Oltmanns, 2009). An analysis of variance was conducted to compare gender and perspective (i.e., self-report and informant), as well as a criterion-level analysis for gender and BPD criteria (Busch et al., 2016).

Busch et al. (2016) reported that male participants self-reported BPD criteria more strongly than female participants. However, a review of informant reports revealed no gender

differences for the prevalence of BPD. Regarding specific criteria, intense anger was the only criterion endorsed more frequently by men for both informant and self-reports. Based on this single finding, the authors questioned if anger was truly reflective of BPD or if it could be associated with male characteristics or another psychopathology (Busch et al., 2016).

In addition to the decrease of sampling bias, this study was strengthened by the use of multiple perspectives, which helped to avoid reporting bias. Busch et al. (2016) suggested that clinicians may miss important information about how BPD symptoms are expressed without the perspective of an informant. However, participants in this study were limited to ages 55-64, which may impose potential limitations for generalizability to younger samples, especially given the trend of decreased BPD symptomology over time (Paris & Zwieg-Frank, 2001).

A review of previously mentioned studies that found results relative to the criterion of anger revealed mostly consistent information. One study that compared research on U.S. populations to German men and women diagnosed with BPD found that men more frequently endorsed intensive anger than women (73.5% vs. 49.1%; Tadic et al., 2009). The authors suggested that the tendency for males to display externalized behaviors of anger likely accounted for this finding. In a study that investigated differential item functioning for BPD criteria using item response theory analyses, the authors found that it was easier for clinicians to assign the item of anger to men, even though women experienced the same trait level of anger on the SCID (17.8% vs. 17.0%; Sharp et al., 2014). They believed that the assessment may exhibit bias based on the clinician's interpretation of the question, "Do you have temper outbursts or get so angry you lose control?" which are guided by the stereotypically masculine examples mentioned in the *DSM* (e.g., substance abuse, reckless driving). Yet, Silberschmidt et al. (2015) did not find any gender differences in measures of anger/aggression and further indicated that for their study,

gender differences for BPD overall were generally minimal. Likewise, Aggen et al. (2009), Benson et al. (2017), Johnson et al. (2003), and McCormick et al. (2007) all found men and women in their studies to display non-significant differences for the criterion of anger.

Paranoia/Dissociation

A single study reported significant gender differences for paranoid ideation and dissociation, the last criterion listed for BPD in the *DSM-5*. These experiences are often an aftermath of trauma and have been suggested to occur in up to two-thirds of individuals with BPD (Vermetten & Spiegel, 2014). Paranoia and/or dissociation is likely to occur under extreme stress and typically lasts for a brief period (APA, 2013).

McCormick et al. (2007) worked with a mixed sample of inpatient and outpatient participants in a study that compared men and women with BPD across multiple domains, including symptom frequency. Participants were recruited by clinician referrals from multiple clinical sites within a Midwestern U.S. state, as well as word of mouth and advertising. Those who met criteria for a psychotic disorder, neurological disorder, cognitive impairment, or current substance abuse disorder were excluded, and the remaining met the criteria for BPD based on the ZAN-BPD (Zanarini et al., 2003b), DIPD-IV (Zanarini et al., 1996), and SIDP-IV (Pfohl et al., 1997). Researchers were left to examine BPD symptoms in a significantly smaller and older sample of 25 men to that of 138 women in a randomized controlled trial. To compare gender with the number of BPD criteria met and assessment scale scores, the authors utilized the means and a Wilcoxon rank-sum test for analysis. They also used multiple logistic regression for gender comparison of BPD criteria and psychiatric comorbidity (McCormick et al., 2007).

Of all the BPD criteria, only paranoid ideation/dissociation was significantly more frequently endorsed by women with BPD when compared to men (66% vs. 40%; McCormick et

al., 2007). Authors attributed this finding to evidence that women more commonly experience childhood abuse/neglect, which is often associated with dissociative symptomology in adulthood. However, we now know this may be debatable in light of other evidence that suggests men and women with BPD experience childhood trauma at the same rate (Johnson et al., 2003) Yet we do not know if there are gender differences in the response to childhood abuse/neglect that could explain these findings. Men in this sample were clinically older than women, which may have affected the results. Additionally, fewer men were used in the sample, lowering the study's power to detect true gender differences. Contrarily, no other study has found paranoia/dissociation to reach a statistically significant gender difference for individuals with BPD (Aggen et al., 2009; Benson et al., 2017; Busch et al., 2016; Johnson et al., 2003; Sharp et al., 2014; Tadic et al., 2009).

Summary

Studies investigating gender and BPD diagnostic criteria typically suggest that men and women present with more similarities than significant differences. A literature review suggests that what may account for discrepancies in findings may reflect gender stereotypes as pathological. Studies of clinical samples have reported mixed results for the number of endorsed BPD criteria for men and women with the diagnosis, with some failing to find a gender difference (i.e., Johnson et al., 2003; Tadic et al., 2009) and some indicative of women with more BPD criteria (i.e., Benson et al., 2017; Sharp et al., 2014). However, it is important to consider the potential of sampling bias when reviewing data from clinical samples, especially those that use a sample of convenience, given that women more often seek treatment for BPD than men. Community samples also report a mixed-gender prevalence, with findings indicative of a higher prevalence for women (i.e., Aggen et al., 2009), a higher prevalence for men (i.e.,

Busch et al., 2016), and equal prevalence between gender (i.e., Busch et al., 2016), depending on how the criteria are assessed (e.g., clinician assessment, self-report, informant report).

While the studies in review supported a few significant gender differences for some criteria, the lack of significant findings for most criteria, including those not mentioned in this review (i.e., frantic efforts to avoid abandonment and a pattern of unstable interpersonal relationships) suggest that men and women display more similarities than differences in BPD criteria (see Table 1). Those that did report gender-related findings were mixed and typically raised questions of generalizability, methodology, bias, and consistency. Women were suggested to meet the criteria of identity disturbance more than men in one study (Johnson et al., 2003). Paranoia/dissociation was also more frequent in women in a single study (McCormick et al., 2007) and attributed this finding to a history of childhood abuse and neglect. A study that used differential item functioning indicated that it was easier for women to meet the criterion of chronic feelings of emptiness, which is suggestive of criterion and/or assessment bias (Benson et al., 2017). Women were more likely to meet the criterion of affective instability (i.e., Aggen et al., 2009; Tadic et al., 2009), although it was hypothesized that women are more likely to internalize compared to men who are more likely to externalize—a conventional gender difference not specific to BPD. The same hypothesis was suggested for the criterion of anger (i.e., Busch et al., 2016; Sharp et al., 2014; Tadic et al., 2009) and impulsivity (i.e., Aggen et al., 2009; Sharp et al., 2014), most often met by men. Additionally, impulsivity was not a strong indicator of BPD when age was a factor and, when examined at the item level, was suggestive of both assessment bias and criterion bias (Sharp et al., 2014).

In closing, several confounding factors are relevant in considering the literature on gender and BPD criteria. This suggests that gender differences found may be more reflective of

sample/population differences, reporter differences, bias (e.g., assessment, criterion, sampling), or gender stereotypes. Future studies should replicate these findings using stronger (e.g., larger and more representative sample sizes, multiple perspectives, item-level analysis) and less biased methodology.

CHAPTER V: GENDER DIFFERENCES IN BPD AND COMORBID DISORDERS

Research strongly suggests that BPD often has a high rate of psychiatric comorbidity. Section II of the *DSM-5* recommends guidelines for diagnosing BPD with co-occurring disorders when the criteria for one or more disorders are met, such as to avoid providing an additional diagnosis if the assessment is based on cross-sectional presentation only (APA, 2013). The biosocial theory suggests there are vulnerabilities and risk factors that increase the development of other psychiatric disorders in addition to BPD, such as temperament, emotional dysregulation, and engagement in internalizing or externalizing behaviors (Crowell et al., 2009). While the pattern of symptomatology for BPD can sometimes resemble and overlap with other psychiatric disorders, several studies have suggested gender-specific patterns for the presence of these co-occurring conditions. Gender differences have been reflected in the rates of BPD and comorbid disorders, as well as the category of psychopathology, sparking curiosity about what may account for discrepancies.

This chapter reviews findings related to gender differences in psychiatric comorbidity for individuals with BPD. These differences, or lack thereof, are presented categorically for mood, anxiety, trauma, eating, substance, and other personality disorders, followed by a summary of conclusions and interpretations made by authors of these studies regarding the results they found.

Mood Disorders

Formerly recognized under axis I disorders in the *DSM-IV*, mood disorders are currently most often classified as depressive disorders (e.g., major depressive disorder, dysthymia) and bipolar and related disorders (e.g., bipolar I and II, cyclothymic disorder). BPD commonly occurs with mood disorders, and both are typically found to develop early with longstanding patterns (APA, 2013).

An earlier discussed study by Johnson et al. (2003) included an examination of gender differences for comorbid axis I disorders within a clinical sample of participants reliably diagnosed with BPD. In their study, participants, who were overly represented by women (175 women, 65 men), were assessed for current and lifetime axis I disorders using the SCID-I/P (First et al., 1996) and were excluded if they met criteria for psychosis, schizophrenia spectrum disorders, current substance intoxication or withdrawal, or cognitive impairment. The authors revealed that there were no significant gender differences found for the number of comorbid axis I disorders for their sample of women ($M = 2.6$) and men ($M = 2.66$). Furthermore, they failed to find significant gender differences for specific co-occurring mood disorders for women and men (i.e., major depression [77.1% vs. 70.8%], dysthymia [20% vs. 20%], and bipolar disorders [18.3% vs. 21.5%]) against their expectation. The authors predicted that women with BPD would more often present with comorbid depressive disorders than men, given that depressive disorders have a higher prevalence in women within the general population (APA, 2013).

In their 2002 study, Zlotnick et al. also investigated gender differences in the pattern of comorbid disorders for BPD and found similar results. Researchers recruited 1,500 outpatients at a hospital-associated private practice, excluding those with developmental disabilities, minors, and non-English speakers. Participants were administered the SCID-I (First et al., 1996) and the SIDP-IV (Pfohl et al., 1997) by trained diagnostic raters and were required to achieve adequate interrater reliability for all diagnoses to be included. Of the eligible participants, 105 women and 44 men met the criteria for BPD and were demographically represented by mostly White and significantly younger women. Using a series of logistic regressions, the authors analyzed comparisons of gender and psychiatric comorbidity (Zlotnick et al., 2002).

A significant gender difference was demonstrated for women in their sample, who more often met the criteria for BPD (12.1%) compared to men (8.4%). However, gender differences were not found for co-occurring disorders that were not impulse-related (e.g., major depression [67.6% vs. 68.2%]). To determine if their findings were specifically related to BPD, Zlotnick et al. (2002) compared these findings to the comorbidity profiles of over 1,000 excluded participants who did not meet the criteria for BPD. The authors found that women in the excluded group were more likely to meet the criteria for major depressive disorder than men in the excluded group, further strengthening the lack of gender differences found for their BPD sample. This study was also strengthened by a reliable assessment of psychiatric disorders; however, the BPD sample may have been unrepresentative considering the lack of racial diversity and the significant age difference between women and men (Zlotnick et al., 2002).

A previously reviewed study by Silberschmidt et al. (2015) reported findings consistent with the studies mentioned above for their international sample of outpatients diagnosed with BPD. They also used the SCID-I (First et al., 1996) to diagnose axis I disorders, in addition to the ZAN-BPD (Zanarini et al., 2003b) to assess for BPD. The authors excluded any participants from their study who had ever met criteria for a schizophrenia spectrum disorder, delusional disorder, cluster A personality disorder, or bipolar II disorder—a potentially co-occurring mood disorder for BPD. Additionally, the investigators excluded any participant from the study who met the criteria for a major depressive disorder within the past 3 months. Although women with BPD were determined to more frequently endorse comorbid axis I pathology in their lifetime compared to men, co-occurring mood disorders were not significant for women (dysthymia 4.7%, bipolar II 2%, major depression 30.3%) or men (dysthymia 2.9%, bipolar II 1.0%, major depression 20.8%) with BPD. Further, findings were extremely limited by the exclusion criteria

that rejected the ability to examine bipolar II and recently diagnosed major depression as potential comorbid mood disorders. Thus, the results may be less generalizable to BPD populations (Silberschmidt et al., 2015).

Banzhaf et al. (2012) also lacked significant gender-specific findings for mood disorder comorbidity, although with potential confounds in their methodology. They assessed a clinical sample of 57 male and 114 female inpatients recruited from the BPD treatment program of a psychiatry department in Germany. The researchers randomly assigned two female participants to every male participant to compensate for having a smaller sample of men. Participants were diagnostically interviewed using the SCID-II (First et al., 1997) and the German version of the Mini International Neuropsychiatric Interview (Sheehan et al., 1998), found to have good sensitivity, reliability, and specificity. Excluded from the study were individuals with intellectual disabilities, psychosis, a current diagnosis of bipolar disorder, and/or severe depression with psychosis. Analyses were conducted using two-tailed *t*-tests, Welch-test, Pearson's chi-squared test, and Fisher's exact test to compare gender, the frequency of BPD criteria, and the number of comorbid disorders (Banzhaf et al., 2012).

Although Banzhaf et al. (2012) found women with BPD to meet the criteria for more comorbid axis I disorders ($M = 2.74$) than men ($M = 2.13$), none of these disorders were mood disorders (major depression: 24.56% vs. 30.36%, recurrent depression: 15.79% vs. 19.64%, dysthymia: 28.95% vs, 17.86%, hypomania:3.5% vs. 1.79%, mania: 0.87% vs. 0%). However, considering the exclusion criteria that specified several mood disorders, findings were limited in the ability to determine if gender differences exist for BPD and co-occurring mood disorders. Additionally, this study's use of a convenience sample, especially one that likely represents a

more severe BPD inpatient population, raised a question of sampling bias and thus generalizability.

Among the few studies that did report significant gender differences for comorbid mood disorders, a trend was revealed for women with BPD. This was the case for a previously reviewed study that included a German sample of former inpatients diagnosed with BPD (Tadic et al., 2009). Subjects in this study were assessed for the psychiatric disorders occurring across 4 weeks, 12 months, and a lifetime using the DSM-IV version of the Munich-Composite International Diagnostic Interview (Wittchen et al., 1996) and were excluded if they exhibited psychosis or cognitive impairment (Tadic et al., 2009).

According to findings, men and women did not differ in the number of axis I disorders throughout any of the assessed periods. However, women with BPD were found to meet co-occurring diagnoses throughout their lifetime for a mood disorder (i.e., bipolar I and II disorder, major depression, and dysthymia) significantly more often than men (93.6% vs. 86.6%). The authors suggested that this was likely due to women's tendency to internalize (Tadic et al., 2009).

Grant et al. (2008) examined disorder-specific comorbidity for unique relationships with BPD. The authors assessed for BPD in a large sample, using data from the second wave of the National Epidemiologic Survey on Alcohol and Related Conditions that surveyed over 30,000 adult participants residing in households and group settings (e.g., college housing) across the United States. This study was intentionally culturally inclusive, oversampling Black and Hispanic young adults to increase the opportunity for generalizability, and controlled for sociodemographic characteristics and additional psychiatric comorbid disorders. The Alcohol Use Disorder and Associated Disabilities Interview Schedule DSM-IV Version (AUDADIS-IV;

Grant et al., 2004) was used to evaluate a lifetime pattern of BPD and 12-month and lifetime patterns of other psychiatric disorders, including mood (i.e., major depressive disorder, dysthymia, bipolar I and II), substance use, anxiety, and personality disorders. The AUDADIS-IV was found to have good to excellent test-retest reliability and convergent validity (Ruan et al., 2008). Of the larger sample surveyed, approximately 2,045 individuals met the BPD criteria, most of whom were well represented across age, race, marital status, education, and region. Multiple logistic regression analyses were conducted to compare gender and BPD, while chi-square statistics were used to compare gender, BPD, and comorbid psychiatric disorders (Grant et al., 2008).

Grant et al. (2008) did not find any significant gender differences in the prevalence for their BPD sample (5.6% men, 6.2% women). Regarding comorbid mood disorders, significantly higher rates of mood disorders (i.e., major depressive disorder and dysthymia) were indicated for women with BPD (55.7%, 80.2%) compared to men (45.2%, 68.7%) at 12-month and lifetime periods, respectively. This study was strengthened by using a national survey and a large, representative sample within the general population. As such, the risk of sampling bias was decreased. Additionally, the findings supported the likelihood that men and women in the general population are more equal in BPD prevalence than other studies suggest.

Anxiety and Related Disorders

Epidemiological studies have reported that anxiety disorders are highly prevalent among individuals with BPD (Keuroghlian et al., 2015), and symptoms occur separately and include more than the marked reactivity of mood often exhibited in BPD. Also found under axis I disorders in the *DSM-IV*, common anxiety disorders have typically included generalized anxiety disorder, panic disorder, specific phobia, social anxiety disorder, and agoraphobia. Across

populations and settings, anxiety disorders are generally more prevalent in women (Bekker & van Mens-Verhulst, 2007), with suggestions of a 2:1 ratio compared to men (APA, 2013). Therefore, research studies have predicted that women with BPD would also have a higher prevalence of comorbid anxiety disorders than men with BPD. However, the following discussion of previously reviewed studies on gender and BPD demonstrates inconsistent findings for comorbid anxiety disorders.

In a German study by Tadic et al. (2009), former female inpatients displayed a lifetime anxiety disorder (i.e., agoraphobia, social phobia, specific phobia, generalized anxiety) in addition to BPD significantly more often than men (91.8% vs. 79.6%). Similarly, Banzhaf et al. (2012) discovered specific comorbid anxiety disorders to occur significantly more frequently for inpatient German women with BPD, particularly panic disorder with agoraphobia (14.04% vs. 1.79%). For a mixed inpatient and outpatient U.S. sample, McCormick et al. (2007) also found that women with BPD were significantly more likely to meet the criteria for an anxiety disorder than men (90% vs. 68%), especially for generalized anxiety disorder. A nationally representative study (Grant et al., 2008) that found significant results for women with BPD in the general population to more frequently have comorbid anxiety disorders (12-month: 67.6% vs. 50.1%, lifetime: 81.1% vs. 66.1%), additionally indicated generalized anxiety disorder, as well as panic disorder with agoraphobia, social phobias, specific phobias, and social phobias to be most common for women with BPD compared to men with BPD.

Yet, several other previously reviewed studies failed to find any significant prevalence rates or any significant gender differences for comorbid BPD and anxiety disorders in clinical samples (Johnson et al., 2003 [women 20.6% vs. men 26.2%]; Zlotnick et al., 2002 [women 36.2% vs. men 43.2%]). Silberschmidt et al. (2015) similarly found no significant gender

differences for BPD and lifetime anxiety disorders such as panic disorder (women 4.2% vs. men 1.9%), obsessive-compulsive disorder (women 1.1% vs. men 0%), and social phobia (women 2.4% vs. men 1.4%) in their cross-cultural and clinical sample; However, they excluded participants in their study who currently met criteria for panic disorder and/or obsessive-compulsive disorder, thus weakening their results.

Post-Traumatic Stress Disorder

Exposure to traumatic events is one of the more prominent features that overlap symptomatic patterns of BPD and PTSD. Particularly for BPD, early childhood trauma has often been found to be a significant risk factor for later developing the disorder (Goodman et al., 2010, 2013; Johnson et al., 2003; Paris et al., 1994a, 1994b). Of all the trauma and related disorders indicated in the *DSM-5*, studies investigating gender, BPD, and psychiatric comorbidity most often reported findings for PTSD.

Neither Zlotnick et al. (2002) nor McCormick et al. (2007) found significant gender differences for comorbid PTSD and BPD within the clinical samples examined in their studies (51.4% vs. 34.1%, 51% vs. 32%, women versus men respectively). However, both studies sampled a significantly smaller number of men, potentially limiting results. Another study specifically excluded participants who had a current diagnosis of PTSD and found only a trend toward greater prevalence for PTSD in women with BPD compared to men with BPD (5.8% vs. 1.4%)—however, not strong enough for the finding to have been significant (Silberschmidt et al., 2015). In contrast, Johnson et al. (2003) found women with BPD to have significantly higher comorbid rates of PTSD compared to men with BPD in a clinical sample (50.9% vs. 30.8%). This finding is consistent with other clinical and community studies that reported the same preponderance for women versus men with BPD and PTSD including Banzhaf et al. (2012;

35.96% vs. 14.29%) as well as Grant et al. (2008; 38.2% vs. 23.6%, 47.2% vs. 29.5% at 12-month and lifetime periods, respectively).

Eating Disorders

BPD and eating disorders have been found to co-occur, with rates of up to 53.8% in clinical populations (Zanarini et al., 2010). Symptoms of BPD and eating disorders are often intertwined, given the suggestion that disordered eating is a behavior of emotional dysregulation (Crowell et al., 2009; Linehan, 1993) and can serve as a function of self-harm, impulsivity, and/or a reaction of chronic emptiness. Research on eating disorders typically lends support to a high prevalence for women in general, and studies that report gender differences for BPD typically concur.

Previously discussed studies that assessed for eating disorders in clinical samples of men and women with BPD all found women to meet the criteria for an eating disorder significantly more often than men (Banzhaf et al., 2012; Johnson et al., 2003 [41.7% vs. 18.5%]; McCormick et al., 2007 [38% vs. 20%]; Silberschmidt et al., 2015; Tadic et al., 2009 [34.5% vs. 18.4%]; Zlotnick et al., 2002 [29.5% vs. 13.6%]). Several studies extended their understanding of the comorbid disorders and determined what specific eating disorders were more common for women with BPD. These studies found women to have a significant prevalence of co-occurring anorexia nervosa (Silberschmidt et al., 2015 [4% vs. 0%]; Tadic et al., 2009 [20.9% vs. 4.1%]) and bulimia nervosa (Banzhaf et al., 2012 [19.30% vs. 5.36%]; Silberschmidt et al., 2015 [8.5% vs. 0%]).

Only one study reported additional significant findings for men. Banzhaf et al. (2012) suggested that men with BPD more often met the criteria for co-occurring binge eating disorders than women with BPD (7.14% vs. 0.87%). The authors reported that they were somewhat

surprised by their findings for men, given the stereotypical belief that men are not as concerned with weight and body acceptance as much as women.

Substance Use Disorders

Comorbidity profiles of individuals with BPD often include substance use disorders, commonly conceptualized as emotionally dysregulated and impulsive behavior. Most of the previously discussed literature has conveyed men with BPD to have a significantly higher gender-specific comorbidity with lifetime substance use disorders (Grant et al., 2008 [80.9% vs. 66.2%]; Johnson et al., 2003 [84.6% vs. 58.3%]; Tadic et al., 2009 [83.7% vs. 67.3%]; Zlotnick et al., 2002 [63.6% vs. 38.1%]), several of which reported specific substances in their findings. Tadic et al. (2009) and Grant et al. (2008) found that men with BPD particularly have a lifetime prevalence of alcohol dependency that is significantly higher than women with BPD (65.3% vs. 42.7%, 52.2% vs. 32.7% respectively). These findings are consistent with the suggestion that men engage in externalizing behaviors to outwardly direct distress, such as through the misuse of substances. However, several of these studies failed to represent a large, more equal number of men than women in their study (i.e., Johnson et al., 2003; Tadic et al., 2009; Zlotnick et al., 2002), which decreased the ability to detect true differences.

However, other studies did not replicate this trend and failed to report any significant gender differences for comorbid substance use disorders including Banzhaf et al. (2012; [alcohol abuse = 26.79% vs. 26.32%, drug abuse = 21.43% vs. 14.91%, alcohol dependency = 14.91% vs. 21.43%, and drug dependency 16.66% vs. 17.86%]), McCormick et al. (2007; [63% vs. 60%]), and Silberschmidt et al. (2015; [10.7% vs. 14%]; men versus women respectively). Authors in one study attributed the lack of findings to their strict exclusion criteria that excluded participants

who met the criteria for substance dependence currently and within 3 months of the assessment (Silberschmidt et al., 2015), a pitfall suggestive of sampling bias.

Other Personality Disorders

While it is possible to assign other personality disorders along with a diagnosis of BPD, the *DSM-5* advises caution in doing so and cites that other personality disorders are often confused with BPD due to the common features that overlap between them (APA, 2013). A review of the empirical literature on BPD revealed different patterns of comorbidity for personality disorders, previously referred to as axis II disorders in the *DSM-IV*. Studies that report findings related to gender have occasionally discussed overall rates of personality disorder comorbidity between men and women, and those that found gender differences have proposed rationales regarding whether the differences are distinguishable to a diagnosis of BPD.

Studies that reported rates of comorbid BPD and other personality disorders in clinical populations are disparate. One study suggested that German men with BPD have overall significantly higher rates of comorbid personality disorders (Banzhaf et al., 2012; $M = 1.79$ vs. 1.28). However, an international study (Silberschmidt et al., 2015) and a U.S. study (Johnson et al., 2003) both reported that men and women with BPD did not significantly differ in average rates of co-occurring personality disorders (24% vs. 26.1%, mean = 2.14 vs. 2.57 respectively). Consistently between studies that report personality disorder comorbidity rates, authors suggest that women with BPD are less likely to meet criteria for other personality disorders. Some have suggested that this is due to a gender difference in relational orientation and cited that women have a societal expectation of being more interpersonally connected than men (Johnson et al., 2003). Yet, this explanation does not represent a difference identified for BPD specifically, rather a potential general personality difference between men and women.

Of the investigations that found gender differences in personality disorder comorbidity for individuals with BPD, most studies reported significant findings for men while few studies detected that personality disorders are more likely for women. McCormick et al. (2007) found a significant difference in a clinical sample of women with BPD who more often met the criteria for an additional diagnosis of histrionic personality disorder (25% vs. 0%), while Grant et al. (2008) indicated that BPD was more often associated with paranoid personality disorder in a community sample of women than men (25.4% vs. 16.5%).

Findings regarding comorbidity for males are more consistent with most studies reporting a significantly higher frequency of antisocial personality disorder for men with BPD in both clinical and community samples (Banzhaf et al., 2012 [32.14% vs. 10.53%]; Grant et al., 2008 [57.8% vs. 42.1%]; Johnson et al., 2003 [29.7% vs. 10.3%]; McCormick et al., 2007 [40% vs. 29%]; Silberschmidt et al., 2015 [5.2% vs. 1.4%]; Tadic et al., 2009 [57.1% vs. 25.5%]; Zlotnick et al., 2002 [38.6% vs. 11.4%]). Research also tends to find men, even without a diagnosis of BPD, to have a higher prevalence of antisocial personality disorder than women (APA, 2013). These studies consistently suggest men exhibit more externalizing behaviors compared to women as the reason for their findings. Other significant findings for men indicate higher rates of comorbidity for narcissistic personality disorder (Banzhaf et al., 2012 [25% vs. 2.63%]; Grant et al., 2008 [47% vs. 32.2%]; Johnson et al., 2003 [21.9% vs. 4.6%]). A single study also demonstrated that within their clinical sample, men with BPD significantly more often met the criteria for a diagnosis of schizotypal personality disorder than did women with BPD (Johnson et al., 2003 [24.6% vs. 10.3%]).

Summary

Theory suggests that certain vulnerabilities and factors can increase the risk of developing comorbid psychiatric disorders in addition to BPD (Crowell et al., 2009). Studies that investigate gender prevalence for these comorbidities have often failed to prove that gender differences exist. Those that do infer differences may have confounds within their methodology (e.g., stringent exclusion criteria, a small number of men, more clinically severe sample) that are suggestive of bias. Research findings typically demonstrate a pattern of psychiatric comorbidity for BPD that appears to be disorder-specific, and many of the differences found lack specificity to BPD but rather to men and women in general.

Most studies have either indicated a similar pattern of comorbid disorders for BPD between genders or found women with BPD to meet the criteria more often for a co-occurring disorder. Regarding mood disorders, most of the literature suggests that comorbidity is equal between men and women (Banzhaf et al., 2012; Johnson et al., 2003; Silberschmidt et al., 2015), while a few studies found women more likely to have an additional mood disorder (Grant et al., 2008; Tadic et al., 2009). Findings for anxiety disorders are similar in that some studies found higher rates of comorbidity for women (Banzhaf et al., 2012; Grant et al., 2008; McCormick et al., 2007; Tadic et al., 2009), while other studies reported similar rates for men and women (Johnson et al., 2003; Silberschmidt et al., 2015; Zlotnick et al., 2002). PTSD was also either more prevalent in women (Banzhaf et al., 2012; Grant et al., 2008; Johnson et al., 2003) or equal between genders (McCormick et al., 2007; Silberschmidt et al., 2015; Zlotnick et al., 2002). Literature that focused on comorbid eating disorders were unanimously suggestive of a significant difference for women (Banzhaf et al., 2012; Johnson et al., 2003; McCormick et al., 2007; Silberschmidt et al., 2015; Tadic et al., 2009; Zlotnick et al., 2002), but with one study

indicating a higher frequency of binge eating disorder for men (Banzhaf et al., 2012). Men typically exhibited more comorbid substance use (Grant et al., 2008; Johnson et al., 2003; Tadic et al., 2009; Zlotnick et al., 2002), although men and women were found to have similar substance use comorbidity in some studies (Banzhaf et al., 2012; McCormick et al., 2007; Silberschmidt et al., 2015). The rate of comorbid personality disorders varied between studies. However, men with BPD were most consistently found to exhibit an additional diagnosis of antisocial personality disorder (Banzhaf et al., 2012; Grant et al., 2008; Johnson et al., 2003; McCormick et al., 2007; Silberschmidt et al., 2015; Tadic et al., 2009; Zlotnick et al., 2002).

The patterns of psychiatric comorbidity revealed some inconsistencies and some meaningful suggestions. The differences found may not necessarily be associated with BPD but rather reflective of how male and female psychopathology and traits are generally expressed. Significant differences for women were more often found for internalizing disorders that reflect inwardly directed distress, such as mood, anxiety, and eating disorders. By contrast, men were more often characterized by comorbid externalizing disorders reflecting outwardly directed distress, such as antisocial personality disorder and substance use disorders. Common rationales of internalization, externalization, and social relatedness may explain gender differences in general, but further, suggest evidence that BPD presents clinically with more similarities than differences between men and women regarding comorbid disorders.

CHAPTER VI: GENDER DIFFERENCES IN FUNCTIONAL IMPAIRMENT IN BPD

Section II of the *DSM-5* indicates that a personality disorder must lead to distress or impairment. Section III, a proposed alternative model that addresses the shortcoming of how personality disorders are conceptualized, requires at least a moderate level of impairment that is relatively stable to assign the diagnosis. For a diagnosis of BPD, impairment in the areas of identity (e.g., unstable self-image, excessive self-criticism), self-direction (e.g., instability in goals, values, career plans), empathy (e.g., interpersonal hypersensitivity, biased perceptions), and intimacy (e.g., conflicted close relationships, extreme idealization, and devaluation) is suggested. Additionally, several reliable measures assess for functional impairment across diagnoses and have been used in empirical literature to detect differences in reported disability between groups. Given the severity and complexity of BPD, it is necessary to investigate whether gender differences exist within the level of functional impairment. Further, findings that report gender disparities for functional impairment of BPD may help to explain the great difference in gender prevalence. However, literature on gender differences in functional impairment for BPD is quite limited.

This chapter discusses findings related to the last research question regarding differences in functional impairment for men and women with BPD. This chapter reintroduces previously reviewed studies that demonstrate gender-related findings using measures of functional impairment, followed by a summary of results and interpretations from the literature.

Impairment in psychosocial functioning is suggested to be more prevalent for those with a personality diagnosis, and those with BPD have been found to report more severe impairment than other personality disorders and psychiatric disorders (Ansell et al., 2007; Nakao et al., 1992). The setting, assessment measures used, and course of development and treatment of

individuals with BPD can contribute to the level of distress reported and may explain why differences exist between genders. Research on gender, BPD, and functional impairment are few and have typically taken place in clinical settings where more severe impairment is indicated. Most of these studies reported an equal amount of functional impairment for men and women with BPD (Johnson et al., 2003; Silberschmidt et al., 2015; Zlotnick et al., 2002), while others found one gender to display more impairment (Grant et al., 2008; McCormick et al., 2007).

Participants in one study were assessed for impairment based on the number of times they had been psychiatrically hospitalized and attempted suicide (Zlotnick et al., 2002). Researchers additionally used items from the Schedule for Affective Disorders and Schizophrenia (Endicott & Spitzer, 1978) to assess for social and occupational impairment (i.e., number of days off work due to emotional or psychiatric problems). Gender comparisons for impairment were made using a multivariate analysis of covariance. However, the authors did not find any gender differences for overall impairment that reached statistical significance and proposed that while men and women are equally distressed, they may exhibit distress in different ways (Zlotnick et al., 2002).

Johnson et al. (2003) also failed to detect significant differences between gender for psychosocial and global dysfunction. The authors used *t*-tests for gender comparisons to analyze their findings on results from the Longitudinal Interval Follow-Up Evaluation Baseline Version (LIFE-BASE; Keller et al., 1987)—a semi-structured interview that assesses for impairment in household duties, employment, school, and recreation; global satisfaction; and global social adjustment.

Likewise, Silberschmidt et al. (2015) used the Sheehan Disability Scale (Sheehan, 1986), a self-report measure of functional impairment in the areas of family, social, and work/school, to compare men and women with BPD. A non-significant result was indicated following an

analysis using two-tailed *t*-tests. The authors concluded that neither men (*M* = 18.55) nor women (*M* = 18.97) were more disabled by the disorder.

However, McCormick et al. (2007) reported significant gender-specific findings within their study on functional impairment, despite their expectation that men and women would report similar levels of overall functioning. Subjects in their study completed the Social Adjustment Scale (Weissman & Bothwell, 1976) that measures functioning in the areas of work, social and leisure activities, familial relationships, marital and parental role, and economic dependence; and the Short Form-36 (SF-36; Jenkinson et al., 1993) to assess physical and mental health functioning. Following a comparison of means and use of multiple linear regression models for analysis, results revealed women with BPD rated themselves as having significantly lower functioning in the areas of work (*M* = 29.2 vs. 25.1), emotional role (*M* = 16.4 vs. 34.9), social functioning (*M* = 36.4 vs. 53.6), and overall mental health functional impairment (*M* = 28.5 vs. 44.5) than men. Based on their findings, the authors suggested that women with BPD may be more critical of themselves and perceive their functioning more negatively than men (McCormick et al., 2007).

Grant et al. (2008) also explored the level of mental and physical disability associated with BPD in their community study and found similar results. They assessed for disability using the Short Form-12 Health Survey, version 2 (Gandek et al., 1998) that specifically measured social functioning, role emotional functioning, mental health, physical functioning, role physical functioning, bodily pain, general health, and vitality. Multiple linear regression analyses were conducted to compare gender and its relationship with impairment. Disability was significantly related to a lifetime diagnosis of BPD compared to participants without BPD, even after controlling for sociodemographic factors, medical conditions, and comorbid disorders.

Regarding gender, the authors found significantly higher levels of mental disability (i.e., social functioning, role emotional functioning, and mental health) for women with BPD than men with BPD and concluded that this may account for the greater prevalence of BPD in women in clinical samples (Grant et al., 2008).

Summary

Severe distress and impairment are often associated with a diagnosis of BPD. Gender-related studies on BPD samples have typically found impairment to be present in several areas of functioning, including work, interpersonal relationships, physical health, emotional health, and quality of life, but reported inconsistent findings for men and women. Particularly, some studies suggested that women with a diagnosis of BPD are more functionally impaired by their symptoms (Johnson et al., 2003; Silberschmidt et al., 2015; Zlotnick et al., 2002), while other studies showed that men and women with BPD are equally impaired (Grant et al., 2008; McCormick et al., 2007).

Various reasons may account for these discrepancies, such as the sampled population (e.g., clinical, community), differences in the measures of impairment, psychiatric comorbidity, and development and treatment of the disorder. Studies have concluded that men and women with BPD likely experience impairment differently and that women, in general, may tend to report subjective distress more than men and thus are treated for BPD more than men. Most findings support that while men and women display socialized differences, their clinical presentation of BPD, particularly for functional impairment, is more similar than different.

CHAPTER VII: DISCUSSION

The purpose of this literature review was to examine empirical studies that investigated how BPD clinically presents in men and women. The relationships among gender, personality, and psychopathology needed to be explored to further understand if and what gender-specific clinical patterns are displayed in this disorder. For BPD, an often-stigmatized personality disorder among clinical populations, the commonly reported gender prevalence is relevant. Women represent the majority of those diagnosed with BPD with a three-to-one ratio (APA, 2013), making BPD one of the most gender disparate disorders. However, some studies failed to replicate this prevalence for BPD and suggested a higher prevalence for men or suggested that neither gender is more prevalent. Studies tended to attribute gender differences to certain factors, including early biological and psychosocial influences on the development of BPD, BPD diagnostic symptomatology, psychiatric comorbidity, and level of functional impairment.

This review of empirical studies set out to determine if and what gender differences exist for BPD as findings could provide a rationale for why women are more often diagnosed. The following research questions guided this review: Do gender differences exist in the developmental features of BPD? Do gender differences exist in the diagnostic criteria for BPD? Do gender differences exist for BPD and comorbid disorders? Do gender differences exist in functional impairment for BPD?

Findings suggest that both men and women report factors that are characteristic of BPD throughout early development. While both genders initially display unstable affective traits (Crick et al., 2005; Goodman et al., 2010; Goodman et al., 2013), men and women begin to branch off in their display of traits in later developmental periods. Women maintain affective instability and begin to display unstable interpersonal relationships, impulsivity, aggression,

acting out, and self-destructive behaviors in childhood and adolescence (Goodman et al., 2010). Men develop impulsivity, lying, emptiness, body-image concerns, and odd thinking in adolescence (Goodman et al., 2013). Comparison studies on gender and BPD further suggest that women more often display more traits, including cognitive sensitivity (e.g., hostile, paranoid worldview) in addition to affective and interpersonal issues in their youth (Crick et al., 2005). Yet, several studies failed to directly compare men and women in the same study, potentially weakening results.

Although a history of trauma (e.g., childhood sexual and physical abuse, neglect) is often indicated as a risk factor for BPD (Goodman et al., 2010, 2013; Johnson et al., 2003; Paris et al., 1994a, 1994b) as it occurs more frequently among those with BPD than in the general population, there remains a lack of gender differences in rates of trauma histories for those with BPD. Childhood sexual abuse, specifically, is commonly reported across genders for BPD but differences in ratings of abuse are often not significant enough to differentiate the risk of developing BPD between men and women (Johnson et al., 2003). Given the number of men and women with BPD who do not report a trauma history, the literature suggests that clinicians may need to rely on other factors that correlate with the disorder to determine what places a man or woman more at risk for developing BPD.

These other developmental factors may include the quality of the parent-child attachment relationship. Women with BPD have reported lower quality relationships with their mothers (Paris et al., 1994a), while men with BPD have indicated having lower quality relationships with their fathers (Paris et al., 1994b), particularly regarding the degree of affection, control, punishment, and overprotection received by their parents. Differences indicated between men and women with BPD are suggestive of men having lower quality attachment relationships with

both parents more often than women (Huang et al., 2014). However, studies are very limited, and potential retrospective bias may be indicated for several of these findings and may not accurately reflect the etiology of this disorder.

The nine criteria indicated in section II of the *DSM-5* (APA, 2013) for BPD functions as the main source for diagnosing the pervasive pattern of BPD today. Given that women are suggested to meet the criteria for BPD more often, one might expect women to endorse more BPD criteria than men. While this was the case for some studies, several studies determined that men and women sometimes endorsed an equal number of criteria (Johnson et al., 2003; Tadic et al., 2009), and likewise, recent studies have found mixed results for gender prevalence (i.e., women > men, women < men, women = men).

Specific criteria such as frantic efforts to avoid abandonment, a pattern of unstable interpersonal relationships, and suicidal behavior were consistently found to be similarly endorsed for men and women (Aggen et al., 2009; Benson et al., 2017; Busch et al., 2016; Johnson et al., 2003; McCormick et al., 2007; Sharp et al., 2014; Silberschmidt et al., 2015; Tadic et al., 2009). Studies that separately reported women to meet a single criterion (i.e., paranoia/dissociation, identity disturbance, or chronic feelings of emptiness) more often did not have the support of other studies to compare their findings (Benson et al., 2017; Johnson et al., 2003; McCormick et al., 2007). More support was gained across multiple studies that found women to have more affective instability—a criterion that literature suggests is aligned with women's tendency to internalize their maladaptive emotions and behaviors (Aggen et al., 2009; Tadic et al., 2009). Conversely, men consistently met the criterion of anger (Busch et al., 2016; Tadic et al., 2009; Sharp et al., 2014) and impulsivity (Aggen et al., 2009; Sharp et al., 2014) more often, perhaps suggestive of their tendency to externalize.

Men and women would likely be expected to fall into these gendered patterns regardless of a BPD diagnosis; therefore, differences found may not be unique to BPD. Important factors such as who the reporter is (e.g., patient, clinician, informant), the population sampled (e.g., clinical, community), and whether the number of participants was representative across gender likely played a role in differences found. Additionally, studies that used methods to detect the probability of criterion endorsement across groups for BPD found several of the criteria to be indicative of gender bias (Benson et al., 2017; Sharp et al. 2014), particularly those for which a significant gender difference was reported (e.g., chronic feelings of emptiness, impulsivity). Overall, most studies revealed non-significant findings for men and women in the endorsement BPD criteria.

The relationship between BPD and comorbid psychiatric disorders often reflects the high rates of psychiatric comorbidity for men and women diagnosed with BPD. Research indicates some specific gender patterns for co-occurring mood, anxiety, eating, substance use, trauma, and personality disorders, although with discrepancies and confounds in methods. Studies that found women with BPD to more commonly present with comorbid mood, anxiety, eating, and trauma disorders often mirror what is reported for general psychopathology, even for those without a diagnosis of BPD (Banzhaf et al., 2012; Grant et al., 2008; Johnson et al., 2003; McCormick et al., 2007; Silberschmidt et al., 2015; Tadic et al., 2009; Zlotnick et al., 2002). Results often indicated a qualitative suggestion that women internalize more often than men and thus present with comorbid disorders characteristic of inwardly directed distress. However, several of these studies challenged this notion based on their lack of findings of significant gender differences for co-occurring psychiatric disorders (Banzhaf et al., 2012; Johnson et al., 2003; McCormick et al., 2007; Silberschmidt et al., 2015; Zlotnick et al., 2002). Substance use disorders were most found

for men with BPD compared to women and further indicates a tendency for men to outwardly direct their distress (Grant et al., 2008; Johnson et al., 2003; Tadic et al., 2009; Zlotnick et al., 2002). For comorbid personality disorders, women more often presented with histrionic (McCormick et al., 2007) and paranoid (Grant et al., 2008) personality disorders, while men more commonly met the criteria for narcissistic personality disorder (Banzhaf et al., 2012; Grant et al., 2008; Johnson et al., 2003), schizotypal personality disorder (Johnson et al., 2003), and most prominently for antisocial personality disorder (Banzhaf et al., 2012; Grant et al., 2008; Johnson et al., 2003; McCormick et al., 2007; Silberschmidt et al., 2015; Tadic et al., 2009; Zlotnick et al., 2002).

Authors of these studies typically provided a rationale regarding social influences for men and women in general—such that women have more of a relational orientation and show more behavioral inhibition, and men have more aggressive and uninhibited behavior patterns. Although interesting and qualitative in nature, these gender differences are typically not specific to a diagnosis of BPD. Additionally, several of the studies conducted on BPD, gender, and psychiatric comorbidity included unrepresentative samples and stringent exclusion criteria, thus limiting results and leading to the conclusion that men and women with BPD may be more similar than different.

Functional impairment in such a complex and persistent disorder is to be expected and is most displayed in social (e.g., interpersonal relationships), occupational (e.g., work, school), and overall global (e.g., physical health, emotional health, quality of life) areas of functioning. Regarding gender differences in the level of distress indicated for individuals with BPD, research shows that women occasionally exhibit more distress (Johnson et al., 2003; Silberschmidt et al., 2015; Zlotnick et al., 2002), but that men and women also show similar levels of impairment

(Grant et al., 2008; McCormick et al., 2007). Results may differ based on the setting, assessment measures used, and course of development and treatment of the individuals being studied. Given the previously discussed personality differences for men and women, perhaps those diagnosed with BPD exhibit and express distress differently from one another. However, this would certainly not account for the substantial difference in gender prevalence for the BPD diagnosis.

Clinical Implications

The goal of this review was to critically review research that investigated BPD in men and women to improve the understanding of how this disorder manifests between genders. Conclusions are relevant to the field because it is important to accurately understand the development, assessment, and treatment of BPD given the gender prevalence, as findings are often indicative of bias based on social stereotypes about men and women. Clinicians may benefit from the conclusions of this review by receiving training on different types of gender bias to not eventuate the stereotypes of men and women for those who display BPD symptoms. Additionally, the use of multi-raters in the assessment of BPD could decrease the likelihood of clinician and assessment bias. Future diagnostic manuals may be improved by clarifying or even redefining terms within the diagnostic criteria for BPD to be more inclusive of male and female traits and behaviors or by making the criteria more gender neutral. As a substitute for this approach, diagnosis may be less gender biased in using a dimensional approach for BPD and other personality disorders that quantifies impairment rather than qualitatively label gendered traits as pathological. Although several studies have recommended gender-specific treatment for BPD, this may not be necessary given findings that men and women may be more similar than different in their clinical presentation. Rather, improving the accuracy of clinical perspectives about gender and BPD may be a more pragmatic and effective proposal.

Limitations of Research

There are several shortcomings in this review that likely have an impact on the conclusions reported. Given the broadness of the research questions in the study, available studies in areas lacking in numbers, such as for attachment relationships and diagnostic criteria of paranoia/dissociation, would have strengthened the conclusions drawn. While there is a multitude of studies on BPD, many of them do not report findings related to gender, and those that do are few. The development, definition, and manifestation of BPD were described through the lens of the biosocial theory, which was selected based on the author's preference for the theory. Other theories may refute several of these findings based on different hypotheses about BPD that do not support the ones indicated in this review (i.e., BPD is a disorder of emotional dysregulation and develops in invalidating environments). This review did not include substantial information on differences for other sociodemographic factors, including race, family history, marital status, and level of education, as either research lacks evidence that significant differences exist between such groups, or they were not reported in great detail. Additionally, the review failed to discuss biological and genetic factors of etiology that may have a significant impact on gender differences. While it is clear there are gender differences in general as well as for BPD, several are based on expectations shaped by society. As such, this review may have been shaped by the author's perspective of gender, based on feminist ideology, and may contradict the views of others.

Suggestions for Further Study

Future research may replicate the studies included in this review to strengthen findings on whether gender differences truly exist for BPD. The clinical presentation of BPD should be studied using longitudinal designs that include a large number of men and women from clinical

and non-clinical populations to be more generalizable. Samples should be demographically inclusive and representative and should be compared to other populations. Researchers should use caution in collecting and interpreting retrospective data and should expand the perspective of reporting by using multiple reporters and repeated assessments. Further studies may specifically focus on age differences in addition to gender in BPD to determine how this factor influences any gender differences found given evidence that BPD symptoms may decrease over time (Paris & Zwieg-Frank, 2001).

In closing, existing literature suggests that although some gender differences exist for BPD, there are likely more similarities than differences in the clinical presentation. The wide difference in gender prevalence for BPD may be due to bias and stereotypical differences between men and women. The true gender prevalence is likely unknown given the many limitations found in studies that may further indicate why the diagnosis is more commonly diagnosed in women and may be missed in men.

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