Attachment Styles and Borderline Personality Disorder Symptom Severity:

A Correlational Study

Thesis

Presented in Partial Fulfillment of the Requirements for the Degree Master of Social Work in the Graduate School of The Ohio State University

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Abstract

Borderline Personality Disorder (BPD) is a mental disorder characterized by an intense fear of abandonment, impulsivity, and pervasive patterns of instability across several aspects of an individual's life including their interpersonal relationships, self-esteem, and affect. Individuals with this disorder are prone to engaging in suicidal and self-injurious behaviors that can result in lethal consequences (American Psychiatric Association, 2022). Research has examined genetic vulnerabilities and childhood traumatic experiences that can lead to the development of this disorder and dysfunctional methods of attaching to others. Studies have repeatedly implicated that individuals with BPD possess insecure attachment styles. However, there have been inconsistent results regarding which insecure attachment style is most prevalent in this population. The purpose of this study was to determine whether there would be differences in insecure attachment styles among individuals diagnosed with BPD and whether there is a relationship between BPD symptom severity and specific insecure attachment styles.

This study was exploratory with a correlational design and used self-report measures to determine the most common attachment styles among individuals in this population and their levels of BPD symptomatology. Descriptive statistics and measures of central tendency were used to describe and present the results from this sample. After collecting data from 64 participants ($N = 64$), their responses to the Zanarini Rating Scale for BPD (ZAN-BPD) and Relationship Structures (ECR-RS) instruments were evaluated to determine their severity of BPD symptoms and attachment styles towards two attachment figures, respectively. One-Way ANOVAs were conducted to determine whether there were differences in the mean number of BPD symptoms between attachment styles with respect to a primary caregiver and significant

other (or close friend) to the participants. After completing One-Way ANOVAs, Post-Hoc Tukey HSD tests were conducted to determine which groups demonstrated significant differences in the mean number of BPD symptoms.

The data found that there were differences in insecure attachment styles with respect to both interpersonal targets. Participants with fearful-disorganized and avoidant-dismissing attachment styles towards a primary caregiver reported significantly higher levels of BPD symptoms than participants with a secure attachment towards their primary caregiver. Participants with a preoccupied-anxious attachment towards a significant other also demonstrated significantly higher rates of BPD symptoms than individuals with a dismissive-avoidant attachment towards a significant other. This study examined attachment styles among individuals with BPD to advance knowledge among clinicians about the disorder and to implement more effective therapeutic approaches in the future.

Dedication

This work is dedicated to my family and friends who have supported me throughout my education. Their uplifting encouragement throughout graduate school has served as a source of strength and inspiration. I also dedicate this work to those affected by Borderline Personality Disorder. This includes but is not limited to individuals who experience symptoms of this disorder, supporting a loved one with this disorder, or those who work in the field of mental health and assist individuals with this condition and their loved ones.

By deepening the understanding of Borderline Personality Disorder, I encourage self-awareness and compassion among those affected. It is a long-term aspiration of mine to increase empathy and effectiveness of mental health professionals in their pivotal role as they work with this population. Derived from lessons I learned from friends and family in combination with a strong passion to help others, I hope to contribute to improved prognoses and a greater understanding of mental illness.

Acknowledgements

First and foremost, I provide recognition to my advisor Dr. Guada, who has supported me throughout this process and granted me this opportunity to learn from his expertise in mental health research. I am not obliged, but indebted to his exemplary guidance as he has assisted me this last year. I am beyond grateful that Dr. Yoon has served as my committee member; her meritorious suggestions have been invaluable towards my work, and I am stoked to have had the honor to learn from someone who demonstrates such proficiency in this field.

I offer my deepest gratitude to my family and friends for the valuable lessons they have indoctrinated me with about mental health. These lessons have profoundly shaped my knowledge and interest to learn more about Borderline Personality Disorder. Their insights have reinforced the significance of environmental factors and adverse childhood experiences, which has enlightened me to learn about the impacts of these experiences on an individual's worldview and behaviors. Because of the lessons from my family and friends, I could not have found a topic that suits my interests more. I cannot thank them enough for helping me to find my passion.

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Chapter One: Introduction

Chapter one includes a research statement and the research focus of this study. The research focus will highlight how research has demonstrated inconsistencies regarding specific insecure attachment styles (e.g., insecure-avoidant, insecure-anxious) among individuals with Borderline Personality Disorder, which has led to the need for clarification in this area. Subsequently, the chapter includes the rationale for the selected research paradigm followed by a literature review discussing the etiology of Borderline Personality Disorder, theories that preceded Bowlby's attachment theory, and modern attachment styles. This section of the writing emphasizes how certain traits of Borderline Personality Disorder are related to dysfunctional behaviors in relationships and insecure attachment styles. The literature may guide future evidence-based practices to treat individuals with this disorder based on the provided theoretical frameworks. The next section will discuss the theoretical orientation and how theories support the implementation of the problem focus in this study. Given the provided information, this will be followed by micro, mezzo and macro contributions to mental health practice given the findings of this study.

Research Statement

While interning in an inpatient psychiatric unit over the last year, I attempted to comprehend behaviors among individuals with Borderline Personality Disorder. After asking one of my colleagues about how this disorder impacts interpersonal relationships, their response was, "Have you ever seen someone in a relationship with another person who shouted that they hate them then told them to pack up all their stuff so they can move out? Later that evening, was that person who shouted they hate their partner eventually admitted to the inpatient psychiatric unit

because they threatened to kill themselves if that person wouldn't get back together with them? That's not how it always looks, but that pretty much sums it up." While this description reflects an unfortunate stereotype about this disorder, suicidal gestures are common among individuals with BPD. Individuals with this disorder are vulnerable to intense emotional dysregulation which may enhance interpersonal problems. Interpersonal problems can further trigger individuals with this disorder to experience greater emotional distress and act on impulses that may be manifested through suicidal or self-injurious behaviors (Kaurin et al., 2020). The present study seeks to diminish stereotypes and provide clinicians or those affected by this disorder with perspective about these behaviors, explained by Bowlby's Attachment Theory.

Many clinicians have attempted to understand the etiology of this disorder and have found there are significant associations between Borderline Personality Disorder and childhood maltreatment (Wilson et al., 2020). However, what are these traits of BPD contingent upon, besides adverse childhood experiences? Perhaps some of these dysfunctional behaviors could be explained by specific insecure attachment styles. The purpose of the present literature was to explore whether an increased severity of BPD traits is interrelated with specific insecure attachment styles (e.g., insecure-anxious or insecure-avoidant), with respect to primary caregivers[1] and significant others. This study also explored whether there was a predominant insecure attachment style among individuals diagnosed with this disorder. The goal is to provide a deeper understanding of insecure attachment styles and how this correlates with traits of Borderline Personality Disorder to guide future therapeutic modalities.

[1] Primary caregiver: The attachment figure who took care of an individual most predominantly while they were growing up.

Research Focus

While there have been studies that have examined relationships between BPD symptoms, childhood trauma and distorted attachment styles, there have been inconsistencies amongst these findings. It has been contended that insecure attachment serves as a mediator between childhood trauma and symptoms of BPD (Peng et al., 2020), and patients with BPD have also indicated higher scores on anxious and avoidant attachment styles than non-borderline control groups. Some studies have indicated that individuals with BPD tend to demonstrate preoccupied attachment styles, whereas others have suggested that individuals with BPD are more prone to fearful attachment styles. Research has consistently demonstrated that individuals with BPD typically possess insecure attachments, but prior to this study, it remained unclear which insecure attachment style is most predominant in this population (Hashworth et al., 2021).

Research Questions

Due to inconsistent findings from previous studies, this study sought to clarify previous findings and to determine whether there would be a difference in attachment styles among adults professionally diagnosed with BPD. This study sought to determine which insecure attachment style was most predominant in this population by examining each participant's attachment style towards a primary caregiver and a significant other (or close friend) if the participant did not have a significant other.

I. Research Question 1: When examining attachment patterns among adults diagnosed with BPD, is there a difference in insecure attachment styles with respect to a primary caregiver?

Hypothesis 1: With respect to a primary caregiver, there will be a difference in insecure attachment styles among the participants diagnosed with BPD. That is, some will

demonstrate an insecure-anxious attachment, some will demonstrate insecure-avoidant attachment, and others will demonstrate an insecure-disorganized attachment.

II. Research Question 2: When examining attachment patterns among adults diagnosed with BPD, is there a difference in insecure attachment styles with respect to a significant other (or a close friend)?

Hypothesis 2: With respect to a significant other (or close friend), there will be a difference in insecure attachment styles among the participants diagnosed with BPD. That is, some will demonstrate an insecure-anxious attachment, some with insecure-avoidant attachment, and others with insecure-disorganized attachment.

This study also examined whether there would be a correlation between levels of BPD symptoms and a specific insecure attachment style. In the past, insecure-anxious attachment and inability to emotionally regulate have predicted greater levels of BPD symptoms (Pourshahriar et al., 2017). This study assessed whether these findings would be consistent.

III. Research question 3: Will there be a difference in the mean number of BPD symptoms between different groups of attachment styles with respect to a primary caregiver?

Hypothesis 3: The mean number of BPD symptoms will be different for at least one attachment style with respect to a primary caregiver.

IV. Research question 4: Will there be a difference in the mean number of BPD symptoms between different groups of attachment styles with respect to a significant other?

Hypothesis 4: The mean number of BPD symptoms will be different for at least one attachment style with respect to a significant other.

This research benefits clinicians and participants by providing the public with a more comprehensive understanding of this disorder. Providing clinicians with this information would also allow them to implement the most effective treatments for this population in the future. This would also allow improved clinical understanding for others similar to the participants in this study, or others diagnosed with this disorder. Understanding the most frequently presented attachment styles in patients diagnosed with BPD would also allow clinicians to help these individuals through symptoms such as unstable interpersonal relationships.

This study seeks to advance public health as it is estimated that this disorder has a relatively high prevalence in inpatient clinical psychiatric populations (Chapman et al., 2023). Studies have indicated that when working with clients diagnosed with BPD, assessing attachment representations before evidence-based practices, such as Dialectical Behavioral Therapy (DBT), may provide perspective to practitioners about their clients' qualities that allow them to maintain healthy relationships (Bernheim et al., 2018). Such studies may indicate that evidence-based interventions with this population should incorporate strategies targeting an individual's attachment insecurity. This may improve their relationship dynamics and quality of life, thereby possibly reducing BPD-related symptoms.

Paradigm and Rationale for Selected Paradigm

The present study was constructed by applying the positivist paradigm. This paradigm was derived from principles emphasizing that objectivity and logic can be accumulated by studying society empirically and scientifically. Under this paradigm, researchers must dismiss biases or preconceived notions prior to any evaluations to acquire empirical truth (DeCarlo, 2018). Positivist research attempts to understand the laws of nature and describes these

phenomena by theories that explain and predict a priori hypotheses. There is emphasis placed on making stronger arguments based on generalizations and replication of findings to ensure the validity of theories. Positivist research can determine causal effects or explanatory associations that lead to predictions about the variables being examined and may utilize qualitative or quantitative analysis methods depending on the nature of the study (Park et al., 2020).

In this study, participants were asked questions about whether they exhibit specific traits of BPD. They were also asked about their attachment styles towards their primary caregiver and significant other. After accumulating empirical and descriptive (qualitative) data from participants, their responses were converted into quantitative data for statistical analyses. This was done by coding each response to the instrument used to obtain attachment-related anxiety and attachment-related avoidance scores, which was eventually translated into a specific attachment style. Participants' responses to the instrument measuring BPD symptoms were also coded and converted into quantitative data to determine their level of symptom severity.

The study applied Bowlby's attachment theory to explain why individuals with BPD may be more prone to demonstrating insecure attachments. Studies have indicated that individuals with BPD tend to possess insecure attachment styles, but the specific insecure attachment styles remained inconsistent. Thus, the present study sought to clarify this area based on previous findings and Bowlby's works on attachment theory. This study sought to determine whether there would be differences in insecure attachment styles among the individuals diagnosed with BPD. This study also examined whether there were associations between BPD symptoms and each individual's measures of attachment-related anxiety and attachment-related avoidance with respect to their primary caregiver and their significant other. Given that the purpose of this study

sought to determine whether associations existed between these variables, this indicates the usefulness of implementing the positivist approach.

Literature Review

Borderline Personality Disorder (BPD) is a Cluster B Personality Disorder marked by an intense fear of abandonment, patterns of impulsivity, unstable interpersonal relationships, suicidal gestures, and emotional dysregulation. An individual must fulfill at least five out of the nine criteria to receive this diagnosis, including frantic efforts to prevent abandonment, patterns of idealization and devaluation in relationships, impulsivity, self-mutilation or suicidal behaviors, affective instability, chronic feelings of emptiness, uncontrollable anger, and paranoia or dissociation (American Psychiatric Association, 2022). The prevalence of this disorder is estimated to be 1.6% in the general population and 20% in inpatient clinical psychiatric populations (Chapman et al., 2023). Although the exact cause of BPD is unknown, certain genetic and environmental factors are believed to play a large role in the pathogenesis of this disorder. In this paper, I intend to explore if individuals with BPD exhibit differences in insecure attachment styles (e.g., insecure-anxious vs. insecure-avoidant) with respect to a primary caregiver and a significant other. I also seek to determine whether a specific insecure attachment style is correlated with an increased severity of BPD symptoms.

BPD: A Brief History

The term ‘borderline personality’ was initially coined by Adolph Stern in 1938. He implemented this concept to describe individuals that possessed traits of psychotic and neurotic conditions but did not fit into one classification. Hence, these individuals were on the ‘border’ of psychosis and neurosis. Psychotic features refer to an individual’s separation from reality and are

evidenced by hallucinations or delusions. Neurosis refers to mental disorders resulting in significant anxiety or psychological distress and is evidenced by fears, obsessions, compulsions, or dissociation (National Collaborating Centre for Mental Health, 2009). However, neuroticism is also one of the Big Five personality traits from the 1980s that describes an individual's likelihood of demonstrating negative emotions, which are frequently exhibited among individuals with BPD (Pugle, 2024).

Eventually, the term ‘borderline personality organization’ was introduced by Otto Kernberg in 1975 to describe individuals who demonstrated malfunctioning and unstable patterns of behavior that were rooted in a distorted self-organization. Kernberg emphasized that the borderline personality organization (BPO) includes BPD and other personality disorders reflecting a pathology of an individual’s poor quality of object relations. He highlighted that a poor quality of object relations may catalyze the unstable self-image that is common in this disorder, which may result in their inconsistent patterns of behaviors (National Collaborating Centre for Mental Health, 2009). Research has demonstrated that BPD is a disorder of underlying mental structures, which has led researchers to build on Kernberg’s work and understand traits rooted in these unconscious representations (Stern et al., 2018).

Etiology of BPD: A Combination of Genetics and Environmental Influences

Concurrent findings have implicated that Adverse Childhood Experiences (ACEs) such as abuse and neglect do not have a causal effect on the condition, but individuals with BPD are 13 times more likely to report ACEs than individuals without BPD. Out of all the ACEs, emotional abuse and neglect demonstrate the largest effect on the development of this disorder.

Genetic factors also contribute to the pathogenesis of BPD, and researchers have implemented a Gene x Environment (GxE)[2] model that illustrates the etiology of this disorder.

The GxE model suggests that specific genetic loci may contribute to the pathogenesis of this disorder. Twin studies have indicated that personality traits and traits of personality disorders are exceedingly heritable, and gene studies have found biological sequences associated with specific traits of this disorder. In genetic studies, neurotransmitters such as serotonin[3] [5-hydroxytryptamine (5-HT)] have been associated with impulsivity in BPD. The serotonin receptor 3A gene 5HTR3A has demonstrated a high 5-HT_{3A}R methylation status[4] at multiple CpG sites and was mediated by increased levels of childhood maltreatment. Thus, when combined with genetic vulnerabilities, childhood maltreatment may serve as an environmental factor that contributes to the development of this disorder (Wilson et al., 2020).

BPD and Interpersonal Dysfunction

A major hallmark of BPD includes dysfunctional interpersonal relationships, commonly demonstrated by increased conflicts. Research that has examined heterosexual couples with the female being diagnosed with BPD has found that the females with BPD and their male partners demonstrated greater levels of insecure attachments than controls. Women with BPD also reported significantly higher levels of childhood maltreatment and neurotic personality traits.

[2] Gene x Environment (GxE) Model: A model that indicates a combination of genetics and environmental factors that contribute to an individual's development of a disorder.

[3] Serotonin: A neurotransmitter that impacts an individual's well-being involving their mood, sexual drive, and works with melatonin to control circadian rhythm (Healthdirect Australia Limited, 2023).

[4] Methylation refers to a chemical reaction where a methyl group is added to DNA, proteins, or other molecules. Certain methyl groups may impact the way molecules act in the body. Methylation of DNA may affect gene expression, turning genes off so it does not make a protein, or turning genes on and increasing an individual's risk of developing certain diseases [or disorders] (U.S. Department of Health and Human Services, n.d.).

Findings from this study implicated that childhood maltreatment may lead to distorted inner working models[5] reflecting insecurity and uncertainty with relationship partners. This uncertainty may manifest itself through symptoms of BPD, such as an intense fear of abandonment and insecure attachment styles. These findings support previous research which has suggested that interpersonal dysfunction is associated with insecure attachment (Kroener et al., 2023. These findings lead to the need for clarification regarding which insecure attachment styles are most prevalent among adults with this diagnosis to guide and improve future treatment outcomes.

Attachment Styles

There are two prominent styles of attaching to others in adulthood, including secure attachment styles and insecure attachment styles. Secure attachments are demonstrated by an individual's ability to trust others, maintain stable relationships, and engage in intimacy while simultaneously maintaining a healthy level of independence. Contrarily, insecure attachments involve anxious, avoidant, or disorganized methods of attaching to others (Drescher, 2024).

Attachment insecurity can be measured by determining an individual's level of anxiety upon real or perceived abandonment from others or by determining their level of intimacy avoidance. Abandonment anxiety is related to an individual's self-esteem and their distress about interpersonal rejection or abandonment. Thus, insecure-anxious attachments are associated with hyperactivation for threats to a relationship as an individual with this attachment possesses an intense fear of abandonment, constantly seeks love and security from their partner. Contrarily,

[5] Inner working model: Unconscious mental representations of the self and others that guide interpersonal thoughts, feelings, and behaviors throughout an individual's life. These representations are derived from a child's relationship with their primary caregiver who serves as a prototype for future relationships (Mcleod, 2023).

avoidance of close relationships indicates an individual's restraint of their emotions and uneasiness towards closeness and interdependence with others, leading to excessive self-reliance. This is often due to an innate belief that others will be unavailable and unsupportive, leading to inactivation of attachment with others to prevent experiencing negative emotions or rejection (Godbout et al., 2019). The third insecure attachment style, disorganized (fearful-avoidant), represents individuals who demonstrate anxious and avoidant behaviors to cope with their fear of close relationships. Individuals with disorganized attachment styles commonly report traumatic early life experiences, and their inconsistent behaviors reflect uncertainty about how they would be treated by their primary caregiver(s)[6] (Drescher, 2024).

Godbout et al. (2019), note that individuals who experience abuse and neglect commonly develop negative attachment schemas that contribute to their inner working model. Schema theory suggests that schemas are mental representations that allow an individual to understand the world surrounding them (Nickerson, 2024). Following experiences of childhood maltreatment, children may develop maladaptive schemas suggesting that they are helpless, unlovable or weak, and undeserving of love. Individuals with these experiences may also view others as dangerous, rejecting, or unavailable, leading to the development of an insecure attachment style (Godbout et al., 2019). Individuals exposed to childhood trauma are less likely to develop a secure attachment, leading them to develop a persistent fear that they will be rejected or abandoned. Thus, when intimate others abandon an individual with BPD, this may

[6] Primary caregiver: In Object Relations Theory and Attachment Theory, it is often assumed that a child's primary caregiver is their mother, with Attachment Theory recognizing the importance of other attachment figures who may care for the child as well.

lead to neurotic symptoms (Peng et al., 2020). These factors may implicate that the affective dysregulation in BPD symptomatology could be related to an insecure attachment.

Theories of Relationship Development in Children

To better understand how Bowlby eventually developed his theories on attachment it is important to briefly explore what influenced him. Freud's theories of psychosexual development and psychopathology have impacted psychiatry, psychology, and social work in the US (Cherry, 2023a). He created Instinct Theory in 1920, eventually referred to as the Eros and Thanatos theory, indicating that people acquire a life-and-death instinct. Life-and-death instincts involve both a source and an aim, which are impacted by genetics and environment (Ainsworth, 1969).

Sigmund Freud's Instinct Theory

Freud's psychosexual development theory suggests that individuals have life instincts, *eros*, which prioritize reproduction, getting along with others, and survival. The death instincts, *thanatos*, indicate that humans are driven to die, and explains why individuals may become aggressive, engage in risky behaviors, or relive their trauma. People may demonstrate the death drive outwards through aggression or can demonstrate this drive internally, which can have lethal consequences such as self-harm or suicide (Cherry, 2023b). Freud's theory suggests that these instincts may play a role in impulsive and self-destructive behaviors in BPD. These behaviors may be rooted in dysfunctional early relational experiences and attachment styles.

Freud: The Structural Model of the Psyche

Shortly following Freud's creation of the instinct theory, he proposed the structural model of the psyche. He indicated that an individual with a healthy personality has a balance between the id, ego, and superego. An individual with an overly activated id may demonstrate

impulsive, uncontrolled behaviors (Cherry, 2022). Thus, Frued's concepts suggest that individuals with BPD engage in impulsive behaviors as a survival mechanism to seek pleasure from unfulfilled id desires during their early years. This model allowed for continued understanding concerning an individual's behavior. Object Relations Theory is a variation of psychoanalysis that focuses less on biological-based drives, and focuses on an individual's inner world (Etherington, 2024).

Object Relations Theory

Klein created Object Relations Theory in 1921 and suggested an infant's relationships towards objects, or their primary caregiver, leads to their quality of relationships and attachment styles later in life (Carnevale & Cummins, 2023). She emphasized that an individual's unconscious mind would constantly return to the quality of the relationship they had with their mother during their infancy (Etherington, 2024). Klein argued that negative relationships with a caregiver from a young age—especially during this period—can have severe impacts on an individual later in life (Carnevale & Cummins, 2023). Building off of Freud's life-and-death instincts, Klein described a child's life-and-death instincts. When the infant faces emotional distress, the paranoid-schizoid and depressive positions may come to surface and be evidenced by the utilization of primitive defense mechanisms (e.g., splitting[7]). These defense mechanisms are commonly utilized among individuals with BPD and lead to interpersonal dysfunction (The American Women's Psychology Department & McGrath, n.d.).

[7] A mental mechanism that is utilized when an individual perceives themselves or others as all good or all bad. This may include shifting between phases of idealization and devaluation of another individual (Smith, 2021).

Bowlby's Attachment Theory

In comparison with Klein, Bowbly's viewpoints considered external factors. Bowlby stressed that an individual's environment can contribute to an infant's attachment style with their primary caregiver. Bowlby was influenced by Darwin's Theory of Evolution and several ethological theories. He stressed that attachment is a survival mechanism (Armstrong, 2002). Bowlby's contributions to Attachment Theory followed the work of Harry Harlow's 1958 experimentation with monkeys. Harlow's work intrigued Bowlby to determine if these attachment patterns were also present among humans. Bowlby, through his work on Attachment Theory, sought to determine a biological base for Object Relations Theory (Holmes, 1993).

By working under Klein in 1937, Bowlby was provided with hands-on experience in psychoanalysis, which led to his critiques about Object Relations Theory (Holmes, 1993). Contrary to Object Relations Theorists such as Klein and Donald Winnicott (1965), Bowlby indicated that external experiences contribute to an individual's attachment style as opposed to solely internal experiences. To rid oneself of certain drives, such as food in infancy and intimacy in adulthood, one requires the presence of another human being. Bowlby described the desire to seek company as a biological function to ensure an individual's safety. He claimed that people are inherently inclined to be around others for protection and comfort (Bowlby, 2008).

Bowlby's Attachment Theory was developed to understand how affectional bonds are developed in an individual's earliest years. When an individual is in proximity to their loved ones, they feel comforted; upon separation, they feel anxious, sad or lonely. Attachment security indicates a relaxed state and the ability to be proactive in one's life by exploring. Contrarily, an individual who demonstrates an insecure attachment style may experience such feelings towards

their attachment figure as intense love, dependency, fear of rejection, irritability and vigilance. Insecurely attached individuals may desire closeness due to their lack of security and can become angry upon real or perceived signs of abandonment. An individual's quality of attachment and attachment behaviors are rooted in their *attachment behavioral system*, also referred to as their inner working model. This system illustrates an individual's patterns of attachment in their relationships. Attachment relationships involve proximity seeking towards an attachment figure, a secure base[8], and protest upon separation (Holmes, 1993).

Bowlby emphasized that a young child's attachments are hierarchical. The mother maintains the highest importance in this hierarchy, with the father closely following. In this hierarchy, parents are often followed by grandparents, siblings, godparents, and other important figures in a child's life. While the priority of particular attachment relationships changes throughout an individual's development, the relationship with an individual's caregiver is the first and one of the most important relationships that they experience. The attachment style that the child has with this caregiver may follow the individual throughout their lives (Holmes, 1993).

To ensure a child's attachment security, Bowlby emphasized that parents should provide them with a secure base, allow their children to explore the world around them, and demonstrate sensitivity towards a child's mental state (Bowlby, 2008). When these factors are provided to a child, they are capable of understanding themselves or others subjectively and are able to regulate their emotions (Peng et al., 2020). If these factors are not provided, the child may not

[8] The aura and tone provided by attachment figures for the child who becomes attached (Holmes, 1993). A secure base allows the child to feel secure enough to actively explore their environment (Learning & Lang, 2020).

learn emotional regulation skills essential to healthy personality development or may be at greater risk of attachment insecurity.

Bowlby indicated that insecure attachments are associated with neurotic features and traits of BPD, which all may be caused by pathogenic parenting. Some of the common patterns involved in pathogenic parenting styles include parents being consistently unresponsive to their children, rejecting the child's needs for affection, threats to not love the child, controlling behaviors, threats to abandon the family, threats to kill the spouse or commit suicide, or blaming a child for the parent's illness or death. According to Bowlby, these pathogenic parenting styles are potential causes of an insecure attachment style (Bowlby, 2008). He emphasized that childhood neglect and maltreatment disrupts development of the attachment system and ability to develop secure attachments (Holmes, 1993).

Mary Ainsworth & Attachment Styles

Ainsworth was another pioneer of attachment theory who emphasized the importance of providing children with a secure base, and how a lack of security during childhood places a child at risk of attachment insecurity. She suggested that an individual's primary caregiver, typically their mother, plays a major role in the development of an individual's attachment styles that follow them throughout their life. Ainsworth et al. conducted the Strange Situation experiment in 1970, which resulted in the creation of modern attachment styles, including secure-autonomous, insecure-dismissive (insecure-avoidant), and insecure-ambivalent (insecure-anxious) attachment (Holmes, 1993). Mary Main and Judith Soloman built on Ainsworth's work and discovered the fourth attachment pattern in 1986, also referred to as the insecure-disorganized attachment (Duschinsky, 2015). Following Ainsworth and Bowlby's works, many theorists have contributed

to understanding attachment system development and how parents should shape their behavior in a manner that allows their children to develop a secure attachment style (Holmes, 1993).

'Post-Bowlbian' Findings

Another factor that plays a role in the development of attachment security is called *maternal attunement*. Maternal attunement was introduced in 1985 by Daniel Stern, who suggested this refers to the way in which a mother helps an infant regulate their rhythmic behavioral patterns. When an infant's activity levels are under-stimulated or overstimulated, the mother should help the infant return to equilibrium. These patterns of responses from the mother help an infant to develop a sense of self. Stern may argue that individuals with BPD may experience an unstable self-image due to a lack of maternal presence and rhythmic harmony during infancy (Holmes, 1993).

According to Stern, maternal responsiveness among infants with insecure attachments is unbalanced. Mothers of insecurely attached infants over-indulge themselves on their children while they are playing or do not respond to their children's needs when they demonstrate signs of distress. Per Stern, insecure-anxious attachments are the result of over-indulging in a child's ability to explore their environment. Contrarily, if a mother was under-responsive towards a child's needs for attention and affection, this could lead a child to develop an insecure-avoidant attachment. Stern argued that individuals with insecure attachment styles did not receive adequate levels of stimulation or synchronization from their mothers (Holmes, 1993).

The presence of a secure base, maternal holding and maternal attunement increase the likelihood that a child will develop a long-term secure attachment. Longitudinal studies have examined participants and found that attachment styles commonly remain consistent throughout

an individual's life. In 1991, a follow-up study from the Strange Situation experiment included ten- and eleven-year-olds who were classified with an attachment style at one year. This study found that at 10 years old, 75% of these children's attachments corresponded with their attachment style at one-year-old. These studies have indicated that quality of parenting is the biggest contributor to an individual's attachment style, and that inadequate parenting may place a child at risk of attachment insecurity or pathological personality development. This may place future offspring at risk if an insecurely attached individual engages in pathogenic parenting, demonstrating the intergenerational transmission of attachment (Holmes, 1993).

The Adult Attachment Interview: Intergenerational Transmission of Attachment

Several studies have demonstrated a high correspondence between parental attachment and infant attachment, including the Strange Situation experiment and The Adult Attachment Interview. The Adult Attachment Interview (Main et al., 1985) examined parental and child attachment behaviors and found a 70-80% correspondence between infant attachment style and parental attachment style, particularly with the mother. This indicates that attachment styles can be transmitted through generations and may suggest that failure to provide a child with the tools necessary to develop a secure attachment may place their future offspring at risk (Holmes, 1993).

Theorists who contributed to attachment theory have led to the modern understanding of attachment. Bowlby's Attachment Theory indicates how an individual's attachment system develops from a young age and how pathogenic parenting may place a child at risk for attachment insecurity or emotional dysregulation disorders such as BPD. Ainsworth's contributions have allowed for the differentiation between attachment styles and understanding their respective differences in behaviors. Theorists such as Winnicott and Kernberg have

outlined how early adverse experiences may lead to unconscious, unresolved mental representations of attachment. An individual may develop symptoms of BPD such as an unstable self-image and instability in their relationships due to these flawed mental representations (Holmes, 1993).

Attachment Theory provides a potential understanding on how the emergence of BPD symptoms, such as a fear of abandonment or emotional dysregulation, may be rooted in childhood traumatic experiences, which lead to distorted inner working models. To work with individuals who experience these symptoms, interventions should target emotional dysregulation and impulsive behaviors in relationships. Interventions that focus on targeting these factors may prevent future intergenerational transmission of insecure attachment styles and symptoms of BPD for future clients. The most widely regarded evidence-based practice to work with BPD patients, Dialectical Behavioral Therapy (DBT), has been effective in significantly reducing BPD symptoms. DBT helps individuals to gain control over impulsive behaviors that impact relationships to improve their prognoses (GoodTherapy, 2018).

Evidence-Based Treatments: Dialectical Behavioral Therapy

DBT is a method of Cognitive Behavioral Therapy (CBT) that was created in the 1970s. This therapeutic modality helps individuals diagnosed with BPD to cope with emotional dysregulation and instability across all aspects of their lives, such as relationship instability (GoodTherapy, 2018). DBT involves individual therapy, weekly group skills training, telephone consults throughout the week if needed by the client, and weekly consultation team meetings for therapists (GoodTherapy, 2018). The skills training groups are also helpful in targeting BPD symptoms such as an unstable sense of self, instability in relationships, fear of abandonment, and

working through emotional dysregulation (McMain et al., 2018). These skills also allow individuals with BPD to diminish attachment insecurity or unresolved mental representations of attachment. As evidenced by research, these skills are effective in decreasing interpersonal dysfunction among individuals with BPD (May et al., 2016).

DBT skills training has helped individuals with BPD to significantly reduce their amount of psychiatric hospitalizations, depression symptoms, and drastically improve their interpersonal and overall functioning (Harned & Botanov, 2016). Several studies have indicated the efficacy of DBT when working with clients diagnosed with BPD. DBT has also helped individuals significantly reduce anger issues and self-injurious behaviors associated with this disorder (McMain et al., 2018). Other studies have found significant reductions in BPD symptoms and overall improvements in mental health (Heerebrand et al., 2020).

Theoretical Orientation

Behavioral Perspective

A few theoretical perspectives were applied to this study, including the behavioral perspective, psychodynamic theory, and developmental theory. The behavioral perspective (1913) is a theoretical orientation that contributed to this research. Behavioral perspective highlights that human behavior is learned as an individual interacts with the environment, and how behavior can be understood or changed (Mcleod, 2024f). Behavior develops through various mechanisms of learning, such as associations with stimuli from the environment, imitations, reinforcement, or rewards and punishments. Theories related to the behavioral perspective include dialectical behavioral theory and therapy and cognitive social learning theory (Hutchinson et al., 2019). Thus, the behavioral perspective is a theory that led to this study as it

examines how human behavior can be learned through different mechanisms and how undesirable behaviors can be altered. Given the nature of this study, which includes individuals with BPD that may demonstrate undesirable behaviors, DBT could be a method to help individuals with this diagnosis to make desirable behavioral changes.

Psychodynamic Theories

As previously noted, the psychodynamic approach is rooted in psychoanalytic theory which was initiated by Freud between the 1890s and 1930s, and his followers such as Melanie Klein (1921) made major contributions to this theory. Per Freud (1915), psychodynamic theory posits that behaviors are rooted in unconscious frameworks, behavior is derived from instincts (eros and thanatos), there is a constant battle between the id, ego and superego, and behaviors and emotions during adulthood are rooted in childhood experiences (Mcleod, 2024b). The Psychodynamic Theory provided a theoretical orientation for this study given its influence on Bowlby who created Attachment Theory. Both based on psychoanalytic theories by Freud and Klein provide a conceptual framework for understanding how early difficulties might contribute to the modern understanding of insecure attachment and emergence of BPD symptoms.

Developmental Theory

Developmental Theory contends that humans develop in age-defined phases, and each stage of development indicates qualitatively different patterns than other stages. This theory highlights how each stage of development builds on previous stages, and each stage represents an interaction of biological, psychological, and social factors. Early childhood involves greater vulnerabilities due to the lack of biopsychosocial development, indicating that individuals who experience traumas during this age may experience enhanced psychological injuries. Each

subsequent stage suggests an individual progresses to different tasks or roles (Hutcinson et al., 2019). Gilbert Gottlieb's Epigenetic Psychobiological Systems Perspective (1991) reflects how environmental factors may impact the expression of inherited genes, which contributes to an individual's interaction dynamics throughout their development (Dagar & Roundy, 2023). The study by Wilson et al. (2020) demonstrates the combination of genetic and environmental factors that contribute to the expression of inherited genes in BPD, as evidenced by increased methylation following childhood maltreatment. Thus, traumatic experiences—particularly during a child's earliest stages of development—may place the child at greater risk of demonstrating insecure attachment styles, interpersonal difficulties and traits of BPD.

Contributions to Micro and Macro Level Social Work Practice

As previously described, literature has identified that individuals with BPD tend to demonstrate insecure attachment styles, but prior to this study, it remained unclear which insecure attachment was most predominant in this population (Hashworth et al., 2021). This study contributed to a gap in research by clarifying which insecure attachment style was most common among individuals with this diagnosis. Research has also indicated that individuals with BPD and insecure-anxious attachment styles typically exhibit greater levels of BPD symptoms (Pourshahriar et al., 2017). The present study examined whether any specific insecure attachment styles would be correlated with increased levels of BPD symptoms. Thus, findings from this study may educate clinicians at the micro level who directly work with this population about how severity of BPD symptoms may increase with respect to a specific insecure attachment style. This study may also educate clinicians about how certain traits of this disorder overlap with specific insecure attachment styles. Results from this study may encourage clinicians who

work with this population at the micro level to incorporate therapeutic interventions into evidence-based practices, such as DBT, to target insecure attachment styles or interpersonal dysfunction. The present study allows clinicians who directly work with this population to recognize certain traits of BPD as a response to abandonment or perceived abandonment that is rooted in attachment insecurity.

The present work may benefit the macro level of social work by providing more in-depth education to clinicians about how symptoms of this disorder are related to insecure attachments and childhood maltreatment. Studies have demonstrated that insecure attachment measures (anxiety and avoidance) have been mediated by childhood maltreatment and personality dysfunction in adulthood (Cohen et al., 2016). This indicates that traits of personality disorders such as BPD are contingent on insecure attachment measures, emphasizing the need for clarification regarding the types of insecure attachments present in this population. The present research may also contribute to the macro level by providing future research directions to clinicians who research this disorder. Practitioners may be able to further examine specific traits of BPD that are dependent on insecure attachment styles or childhood maltreatment. Perhaps such research would allow clinicians to move toward a de-stigmatized model of this disorder. In the future, such research may allow for reclassification of this disorder from a pathology of personality to a new classification, such as a trauma and stressor-related disorder or a severe attachment disorder. Individuals who receive a diagnosis with the name “personality disorder” in its title may interpret this diagnosis as insulting or as having something fundamentally wrong with them as a person. As mental health practitioners, it is imperative to destigmatize mental

illness and ensure that clients feel understood. Continuously educating practitioners about the roots of BPD may allow for increased compassion towards this population.

Summary

Chapter one highlighted the research statement and focus, rationale for the selected paradigm, literature review about BPD and attachment styles, theoretical orientation, and benefits of this work to mental health practice. This work clarified a gap in research regarding the most common insecure attachment styles among individuals with BPD with respect to a primary caregiver and significant other. The research study also replicated previous studies by measuring insecure attachment measures and severity of BPD symptoms to determine if there was an association between any specific insecure attachment style and severity of this disorder. The study implemented a positivist paradigm to measure traits of BPD, attachment-related anxiety and attachment-related avoidance objectively without any bias from the researchers. This study utilized the behavioral perspective, psychodynamic theory and developmental theory as theoretical frameworks. By enmeshing the positivist paradigm with these theories for the theoretical orientation, this allows for better understanding of this disorder and how it relates to insecure attachment to benefit the micro and macro level of social work. Recognizing how these factors are interrelated allows for clinicians to incorporate impactful interventions when applying evidence-based practices.

Chapter Two: Engagement

Introduction

Chapter two describes the research site of the study, which included social media platforms such as TikTok, FaceBook and Instagram in addition to online public forums such as Reddit. Subsequently, the chapter details how gatekeepers such as moderators in online groups were engaged with for the purpose of the study. The next section discusses how the researcher prepared themself for the study. After describing how the researcher prepared themself, issues regarding diversity, ethics and politics are discussed in addition to how these issues were managed. The chapter is concluded with the important role of technology in this study which allowed for recruitment of adults with BPD worldwide.

Research Site

This study sought to examine attachment styles among adults professionally diagnosed with BPD and wanted to ensure that participants did not self-diagnose. In order to avoid participants self-diagnosing, recruiting participants diagnosed with BPD from inpatient psychiatric hospitals in Columbus, Ohio would benefit the purpose of this study. However, gatekeepers such as the administrative inpatient hospital directors in Columbus claimed that it would take an extensive amount of time to obtain approval from the state to recruit their patients. Other inpatient psychiatric hospitals claimed that researchers in the past were not approved to recruit participants for participation due to city and state laws. If approved to recruit participants in inpatient hospitals, this may limit the number of participants depending on the number of patients diagnosed with BPD in the hospital and their willingness to participate.

Thus, it was most feasible to recruit adults professionally diagnosed with BPD online from various social media platforms. The positivist paradigm of research supports maximizing the amount of participants that can potentially be recruited and emphasizes the importance of the generalizability of the findings (Park et al., 2020). By posting the link to participate in the study online, this also allowed the survey to reach multiple individuals.

Some individuals with BPD were privately messaged on TikTok if their content described their diagnosis and experiences with the disorder. A large majority of individuals with BPD on TikTok referred to themselves as "Self-aware Borderlines." Several of these individuals described their struggle to maintain a sense of self without the presence of a "favorite person," which is someone whom they typically attach themselves to (Haas, 2022). Several of these individuals utilize hashtags in their posts, which allows researchers to search these hashtags and recruit these individuals by privately messaging them. Others with BPD were recruited from groups on social media platforms such as Instagram, Reddit, and FaceBook. Most BPD group members included individuals diagnosed with BPD or others who have a loved one with this diagnosis, with group moderators typically having the diagnosis. Many groups required moderator approval to be accepted into the group and required statements regarding the purpose for joining. A few groups were public and did not require moderator approval. The majority of groups were available to individuals from various demographics and countries around the world, and adults with BPD from various countries participated in the study.

The online social media platforms provide support to individuals with this diagnosis. In these groups, many individuals discuss how to cope with particular symptoms or how to improve their interpersonal difficulties. Many of the groups promoted psychoeducation and support in

regards to BPD symptoms and how to improve quality of life with respect to difficulties surrounding this disorder. While many of the individuals in the groups were not behavioral health specialists, several members were individuals diagnosed with BPD and understood this disorder. These individuals are able to provide a supportive environment for others with BPD. Should there be situations with disrespect or harassment on the group discussion boards, this is typically handled by moderators who create group rules. Moderators typically handle situations in these groups regarding harassment, content discussed in public group forums, posts about self-harm or suicidal ideation, and research posts. Several moderators disapprove of research studies being posted in the groups and emphasized the importance of utilizing the group as an environment for support solely. Other moderators required a message from the researcher discussing the purpose of the study and what the standardized recruitment script (see Appendix A) states prior to informing group members about the study. A few moderators approved of research studies and allowed for researchers to post their recruitment scripts in the BPD groups.

Engagement Strategies for Gatekeepers at Research Site

As described above, the moderators in many online BPD groups control the content discussed in the public group forums. It was typically required to message the moderators and obtain approval prior to posting in the groups. Moderators of the BPD groups served as gatekeepers, and the researcher prepared a standardized statement regarding the purpose of the study and recruitment script. This allowed the researcher to determine whether it would be permissible to recruit in the respective groups. The researcher informed the moderators that The Ohio State University IRB had already approved of the study. If approved by the moderators, they commonly suggested that the researcher added that recruitment for the study had already

been approved by the moderator in the post to avoid the post from accidentally being deleted. The researcher was either given permission to post the recruitment script or denied permission, and the researcher followed such guidelines.

Self-Preparation

In order to prepare for this research, it was germane to conduct an extensive knowledge review about Borderline Personality Disorder and development of attachment styles. This required the researcher to deeply review works by Bowlby and his influences to understand theories about personality development. An intense literature review allowed the researcher to understand theories that preceded attachment theory and recognize the benefits of examining attachment styles among individuals with BPD as opposed to quality of object relations. Multiple pieces of literature have already examined flaws in object relationships among individuals with BPD and other personality disorders (Stern et al., 2018). Comprehending the viewpoints of each theory preceding attachment theory allowed the researcher to set the precedence and purpose of this study. It was imperative for the researcher to understand how each insecure attachment style can overlap with traits of BPD. The researcher was required to understand the difference between components of each insecure attachment style and whether an individual possesses traits of BPD or fits criteria for the disorder. Understanding each characteristic of the disorder and how it may relate to insecure attachment styles was essential to comprehend how an individual may develop attachment insecurity, traits of BPD, or both. This allowed the researcher to determine where gaps lie in the research and what research is needed to improve the quality of life among this population. The present study answers questions that previous studies have not answered and guides interpretation of the data (Morris, 2013).

Diversity Issues

In this study, diversity issues included, but were not limited to stereotypes about the most common gender(s) among individuals with BPD, racial or ethnic background and sexuality. Some of the most common stereotypes surrounding this disorder suggest that BPD is more common among females than males. It has been hypothesized that clinicians' stereotypes can lead to biases and a lower diagnostic criteria threshold when diagnosing one gender over another, implicating why there are skewed prevalence rates among females (Bozzatello et al., 2024). Because certain clinicians may possess these biases, this can result in the overdiagnosis of women with this disorder and underdiagnosis of males. A lack of accurate prevalence rates may contribute to clinicians' biases and make them more inclined to diagnose females as opposed to males with this disorder, further contributing to the stereotype that BPD is a female-dominated disorder. By lowering diagnostic criteria thresholds for females, this leads to overdiagnosis of women with BPD and impedes the ability of clinicians to serve male individuals with this diagnosis, potentially worsening their condition if they are left untreated.

Many minority disparities are also present among complex mental disorders. Severe mental illnesses are highly prevalent among racial or ethnic minorities when compared to caucasians. This has led clinicians to suggest there may be potential racial biases when diagnosing individuals with complex mental disorders, with BPD being included (Rodriguez-Seijas et al., 2020). Some sources indicate that racial or ethnic minorities are more likely to fit criteria for BPD, whereas others indicate that non-hispanic white individuals are more likely to be diagnosed with the disorder. However, research has clarified these stereotypes and found that individuals part of the "other" racial minority group—individuals who were not black, hispanic,

or asian—were significantly more likely than caucasian individuals to be diagnosed with BPD (Becker et al., 2023). Thus, certain racial minority disparities exist in the prevalence of this disorder.

Other minority disparities among individuals with BPD indicate there are potential misinterpretations about culturally normative behaviors among clinicians when they diagnose this disorder. Practitioners who are unfamiliar with behaviors that are culturally different may not recognize that normative behaviors in certain cultures (e.g., homosexuality) are not pathological. There is a high prevalence of BPD among individuals who are sexual minorities, indicating potential diagnostic biases may be present among practitioners who diagnose their clients. Studies exploring clinician bias have found that therapists given a vignette with a gay male were more likely to diagnose the client with BPD than vignettes with a heterosexual client. In these vignettes, the psychiatric symptoms, severity of symptoms and dysfunction among the fictional clients were all standardized besides the difference in sexuality. This indicates clinicians may be more inclined to diagnose an individual who is a sexual minority with BPD as opposed to another disorder. Clinicians may also diagnose the sexual minority individuals with this disorder even if the presentation is identical to a client who is heterosexual and does not fit criteria for the disorder. Thus, research has shown that individuals who are sexual minorities are more likely to be diagnosed with BPD than heterosexual individuals, indicating that clinician biases may play a role in the diagnosis of individuals who are sexual minorities (Rodriguez-Seijas et al., 2020).

In order to avoid any biases among researchers in this study, all individuals who were at least 18 years of age and had been professionally diagnosed with BPD were eligible for

participation. All minorities and individuals who fit criteria for the disorder were eligible for participation. It was imperative for the researcher to be aware of their own cultural background and cultural lens to ensure the ability to maintain a strong sense of cultural competence throughout the study (Morris, 2013). While participation was voluntary, all individuals with this disorder who were at least 18 years old were encouraged to participate. The various demographics of participants were acknowledged and classified as researchers examined the responses from participants. Stereotypes were avoided as this study welcomed all individuals who were eligible for participation, and participants were asked to respond to the surveys honestly based on their own perceptions. By incorporating self-report measures, this allowed the researcher to implement objective research methods, gathering empirical evidence to further comprehend traits of BPD in association with insecure attachment styles (Nickerson, 2023).

Ethical Issues

Ethical issues in this study included ensuring each participant's well-being and protecting each individual's private information. These issues were avoided by allowing participants to cease participation at any point without penalty if they felt uncomfortable or wished to stop participating for any reason. Each participant was informed about the purpose of the study and how there was less than minimal risk to participating prior to participating. The consent form explained that the only risk involved potential discomfort while answering questions pertaining to symptoms of BPD or attachment styles. Participants were informed that there was no chance of a breach of confidentiality as no questions on the survey asked for the participant's names or for identifying information. Given that each individual was able to participate anonymously, they faced no risk to their dignity. The participants were informed about how the responses would be

utilized for the purpose of the study and how researchers would be the only individuals to access the survey responses on Qualtrics protected by passwords (National Association of Social Workers, 2024).

Social Issues

There were a few social issues that were faced during the course of the study. In the past, participants haven't always had the choice to voluntarily identify themselves with disorders such as BPD. However, in this study, participants had the choice to voluntarily participate throughout the course of the study (National Association of Social Workers, 2024). Other political issues in the study included the recruitment of as diverse of a population as possible. Utilizing the positivist paradigm, this study sought to find associations between traits of BPD and insecure attachment styles through self-reports based on how participants perceived their own symptoms and attachment. It was imperative to encourage individuals with BPD from various backgrounds to participate to ensure this information would apply to as many adults with BPD as possible.

The Role of Technology

Technology was utilized in the study to recruit participants and allow them to participate in the study via the online survey links. The recruitment script with the Qualtrics link was privately messaged to multiple individuals with BPD on TikTok or Instagram and posted in several relevant groups on Reddit and FaceBook. The recruitment script informed participants about the eligibility criteria for participation and the purpose of the study, welcoming all adults with BPD to participate. After clicking on the link in the recruitment script and consenting to participate, participants were led to the eligibility screen confirming they were at least 18 years old and that they have been diagnosed with BPD by a behavioral health professional. Following

this page, if participants confirmed that they were at least 18 years old and had been professionally diagnosed, they began the study and were led to the demographics questionnaire.

Summary

Chapter two addressed how the researcher devised a plausible study site and how the researcher engaged gatekeepers such as moderators in online BPD groups. This chapter outlined how the researcher prepared themself for the study and how issues regarding diversity, ethics, and social issues were avoided. The chapter described how the role of technology was crucial to the implementation of this study. All participants were recruited from social media platforms such as TikTok, FaceBook, and Instagram online or online public forums such as Reddit.

Chapter Three: Implementation

Introduction

Chapter three discusses the selected study design and the rationale behind this study and why this study sought to determine whether there were differences in attachments among individuals with BPD. This chapter describes the participants that were eligible for the study, how they were recruited, and how the researcher was able to obtain permission from moderators or gatekeepers to recruit from social media platforms. This chapter describes the phases of data collection and the instruments that were used in the study, highlighting the reliability and validity of the instruments incorporated. Next, the chapter describes how the data was recorded and analyzed, and how the study was eventually terminated.

Study Design

The present study is exploratory with a correlational design using self-report measures regarding attachment style and BPD symptomatology. The study sought to build on previous studies that attempted to clarify differences in attachment styles between groups of individuals with BPD and groups of individuals without BPD. Many studies have found differences in attachments between individuals with BPD and without BPD, but it is believed this is the only study that has sought to determine whether there are differences in insecure attachments among adults with this disorder. The study also sought to determine whether there is a style of attachment that is more dominant among the BPD group, (e.g., avoidant or anxious).

Study Participants

Individuals eligible for participation in this study included adults that were at least 18 years old and professionally diagnosed with BPD by a behavioral health professional. Examples

of behavioral health professionals included social workers (LSW/ LISW), clinical psychologists with a PhD or PsyD, psychiatrists with a D.O. or M.D., and psychiatric nurse practitioners. Adults with BPD from all demographics were encouraged to participate, but the surveys were presented in English, indicating that participants were required to be fluent in English to participate. Participants with comorbid diagnoses such as bipolar disorders, depressive disorders, anxiety disorders, and other personality disorders were all eligible for participation. The only exclusion criteria for the study involved individuals who were not at least 18 years old, were not professionally diagnosed, have self-diagnosed, or suspected they have BPD and had not been diagnosed by a licensed professional yet. Participants were not compensated for their time.

Sampling

Participants in this study were recruited by convenience sampling. Convenience sampling involves engaging respondents convenient to the researcher (Edgar & Manz, 2017). Convenient sampling was incorporated into this study as adults with BPD were found in areas the researcher could expect them to be, making recruitment more convenient for the researcher. Participants were recruited from BPD groups on FaceBook and Reddit, BPD awareness groups on Instagram, or posts about experiences with the disorder by adults with BPD on TikTok. The recruitment script and link to the Qualtrics survey were posted in online BPD groups on FaceBook, Reddit, groups on Instagram and individuals on TikTok through private messages. The recruitment script informed participants about the purpose of the study and eligibility criteria for participation. This description reinforced that participation in this study was completely voluntary and there was no penalty to participants for dropping out. The script posted in the BPD Facebook groups, Reddit group, BPD groups via Instagram messages and individuals with BPD on TikTok was consistent

for all recipients. However, the message that was sent to individuals diagnosed with BPD on TikTok began with “Hello (insert name here)!” or “Hello there!” if their name was not visible on their profile.

Phases of Data Collection and Instruments

Participants were recruited from social media platforms including BPD groups on FaceBook, Instagram, Reddit, and individuals who discuss their BPD diagnosis on TikTok.The researcher posted the recruitment script on BPD FaceBook group discussion boards, Reddit online public forums, and directly messaged BPD groups on Instagram and individuals on TikTok. The researcher re-posted the recruitment script with the Qualtrics link every three weeks in the same groups—or to the same individuals—to continue recruiting participants. The researcher was required to speak with group moderators in private messages on Reddit to ensure posting research studies was adherent to the group guidelines. Once approved, the researcher posted the recruitment script to Reddit groups related to BPD or mental health. Other social media platforms, such as FaceBook and Instagram, did not require moderator approval to post the research. However, FaceBook required moderator approval to join the group. Thus, the researcher informed the moderators that the purpose of joining was to learn more about BPD and to recruit adult individuals with BPD who would be willing to participate in research. All moderators on FaceBook and Reddit were made aware that the study had been approved by the OSU IRB in addition to BPD groups on Instagram and individuals on TikTok.

The entirety of the research was self-administered. Participants first read the recruitment script that was posted on the group discussion boards, online public forums or that were messaged to them privately. After clicking on the Qualtrics link, participants were informed that

their responses would remain anonymous on the consent form. It was emphasized that participation was voluntary, but less than minimal risk was posed; the only potential risk involved slight discomfort while answering questions pertaining to BPD symptomatology or attachment styles. It was germane to ensure that participants understood the nature of the study, consented to participate and that they were aware that they could cease participation at any point, which was all described on the consent form. When participants opened the link to the study, the online consent form was presented to them. The consent page explained the purpose of the study and highlighted that participation is voluntary, further indicating that there was less than minimal risk to participating in the study as all responses remained anonymous. If participants consented to participate, they selected a button that stated, "Yes, I have read the terms and consent to participate." After participants consented to participate, they were guided to the next page that asked them to confirm their eligibility.

The next page included a statement for participants to confirm that they had been professionally diagnosed with BPD by a behavioral health professional and that they were at least 18 years old. If participants selected the option, "*No, I am not at least 18 years old*," or "*No, I have not been professionally diagnosed with BPD*," they were guided to a response that stated "The following study seeks individuals who can confirm that they have received the diagnosis from a behavioral health professional. Thank you for your interest in this study." If participants confirmed that they were professionally diagnosed and that they were at least 18 years old, they began the study. When it was confirmed that participants were eligible to participate, they were guided to the first question on the study inquiring about comorbid conditions.

The first question that appeared to participants asked them whether they had any comorbidities in addition to their diagnosis of BPD. Participants were asked to select all that applied based on the following comorbid conditions: *Histrionic Personality Disorder, Narcissistic Personality Disorder, Antisocial Personality Disorder, Bipolar I Disorder, Bipolar II Disorder, Major Depressive Disorder, Other Mood Disorder, Generalized Anxiety Disorder,* or *Obsessive Compulsive Disorder*. Participants also could've selected *Other (please specify),*where they were able to select the statement and type out their comorbid diagnoses, or *None of the above* if they did not have any comorbid conditions. Following the comorbidities section, participants completed the demographics questionnaire.

The first question on the demographics survey asked participants to type out their age. The next question asked participants to specify their ethnicity by selecting from one of the following responses: *Hispanic of any race, American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, Caucasian/ White, Two or more Races, Race and Ethnicity Unknown*, or option *Other (please specify)*, where the participants typed out their ethnicity. Participants were then asked about their gender and selected one of the following responses: *Female, Male, Transgender Female, Transgender Male, Gender Variant/ Non-Conforming/ Non-Binary,* or *Prefer not to answer*. Next, participants were asked about their sexual orientation and selected *Bisexual, Gay, Lesbian, Straight/ Heterosexual, Queer, Questioning*, or *Prefer not to answer*. The subsequent question asked participants to type out their household total annual income. Finally, the last question on the demographics portion of the survey asked participants to select their highest degree or level of school they have completed: *Less than a high school diploma, High school degree or equivalent (GED), Bachelor's degree*

(e.g. BA, B.S.), Master's degree (e.g., M.A., M.S., MEd), or *Doctorate (e.g., PhD. EdD)*. After completing these demographic questions, participants began responding to self-administered questionnaires measuring severity of BPD symptoms, attachment-related anxiety, and attachment-related avoidance.

Severity of BPD Symptoms

Zanarini Rating Scale for Borderline Personality Disorder (ZAN-BPD)

Severity of BPD symptoms was measured by The Zanarini Rating Scale for Borderline Personality Disorder (ZAN-BPD), a 10-item instrument that measured each participant's 9 criteria of BPD within the last week. The dependent variable of this study, severity of BPD symptoms, is dependent on each participant's insecure attachment style. Participants responded to each statement that measured each criterion of BPD symptoms by clicking the "yes," or "no" response. The standard scores, means, and standard deviations have been tested across genders, ethnic groups, and SES. The test-retest reliability for this instrument is >0.75, and the convergent validity of the scale has a median value of 0.70, indicating participants' responses were dependable in regards to whether they possess traits of BPD. The internal consistency of the 9 criteria items had a Cronbach's alpha score of 0.84, suggesting a strong level of reliability or a strong internal consistency for measuring BPD symptoms in this instrument (Zanarini et al., 2016). When participants earned a score of 8 or higher on this scale, this indicated a diagnosis of BPD (Zanarini, 2018). The convergent validity of the ZAN-BPD has been reported as .70, indicating this is a highly valid tool to measure BPD symptomatology (Zanarini et al., 2016). After participants answered the items on the ZAN-BPD instrument, they responded to an

instrument that measured their attachment-related anxiety and attachment-related avoidance with respect to a primary caregiver and significant other.

Attachment-Related Avoidance & Attachment-Related Anxiety

Relationship Structures Questionnaire (ECR-RS)

The independent variable of this study was attachment styles and was measured by the ECR-RS, which is a 9-item likert scale instrument that dimensionally measures attachment style with respect to four different figures (mother-father-significant other-friend). When incorporating this survey, responders typically answer the questionnaire four times with respect to each different figure each time. However, in this study, participants in this study only responded to the questionnaire twice with respect to two of these interpersonal targets. The first time participants responded to this instrument, they answered each item about a primary caregiver, and the second time about a significant other. If participants did not have a significant other, they responded with respect to a close friend, which made for a total of 18 questions in this section (Fraley, 2011).

The first six items of the scale measure attachment-related avoidance, and items 7-9 measure attachment-related anxiety. The numerical values that corresponded with each response are as follows: Strongly Disagree (1), Disagree (2), Somewhat Disagree (3), Neither Agree nor Disagree (4), Somewhat Agree (5), Agree (6), and Strongly Agree (7) (Fraley, 2011). Studies have demonstrated that the ECR-RS is a reliable scale, with a test-retest reliability of .80 in the parental domain and .65 for romantic relationships (Fraley, 2011). Studies have indicated that Cronbach's alpha for this scale has ranged between 0.75 and 0.91 for anxious attachment and between 0.87 and 0.92 for avoidant attachment, demonstrating good psychometrics for the

subscales. The standard scores, means and standard deviations of this scale have been measured, and the standard deviations illustrated minimal variations around the mean, which indicates that the items on the scales have minimal variability in terms of difficulty (Rocha et al., 2017). It has been confirmed that the ECR-RS demonstrates good reliability, good convergent validity and good discriminant validity (Sarling et al., 2021). This indicates the usefulness of implementing this instrument to measure attachment-related anxiety and attachment-related avoidance with respect to two interpersonal targets. After participants completed the ECR-RS the second time, they had completed the study and were led to a message that stated "We thank you for your time spent taking this survey. Your response has been recorded."

Data Recording

The self-administered study was completed by each participant and their responses were anonymously recorded and saved on the Qualtrics website. Qualtrics data was downloaded by the researcher and transferred to SPSS to evaluate the data with adequate statistical analysis software. The data was downloaded and saved onto the researcher's password-protected computer in a locked room. Only the researcher knew the password to obtain access to the computer and data to examine the data. The data downloaded onto the researcher's computer was eventually sent to the PI of the study to remain password-protected on SPSS software for at least five years.

Data Analysis

This study was exploratory in nature and included a correlational design with descriptive statistics. Self-report measures were obtained from each participant to determine whether a) there was a difference in attachment styles among individuals diagnosed with BPD, and b) whether a

specific insecure attachment would be correlated with increased BPD symptom severity. The dependent variable for the analyses was the total number of BPD symptoms, whereas the independent variable was the attachment styles demonstrated by the participants. After exporting the data from Qualtrics to SPSS, other variables included descriptive statistics such as participants' demographics (e.g., age, annual income, gender, highest level of education, ethnic/ racial background). Summary statistics were calculated to evaluate demographics. The total number of BPD symptoms was calculated, average attachment anxiety, and average avoidance scores were also calculated.

The data was utilized to run bivariate analyses (One-Way ANOVA Tests and Post Hoc Tukey HSD Tests) to determine whether there were significant differences in BPD symptom severity between groups. Participants were coded into groups based on their attachment styles (i.e., secure-autonomous, dismissing-avoidant, preoccupied-anxious, and fearful-avoidant) with respect to each interpersonal target. One-Way ANOVA tests were conducted to determine whether there were significant differences in BPD symptom severity between the groups demonstrating the different attachment styles. The first One-Way ANOVA test conducted reflects the participants' attachment styles with respect to a primary caregiver, whereas the second One-Way ANOVA test conducted reflects the participants' attachment styles with respect to a significant other. The F Scores and significance levels were obtained from the One-Way ANOVA test to determine if Post-Hoc tests were necessary. Given the scores and significance of both One-Way ANOVA results, Post-Hoc Tukey HSD tests were conducted following both One-Way ANOVA tests. SPSS software was used to conduct all statistical analyses for this study, with significance levels determined at $p<0.05$.

Termination and Follow-Up

The research was approved by the OSU IRB a few months prior to recruiting participants. The study was "terminated," or ceased recruitment of participants after the data analysis had been completed. Following the data analysis, the findings were presented to the PI and committee chair of the study with a Powerpoint presentation and infographics representing the findings of the study. Participants will be followed up with to describe the findings of the study per their request on Reddit.

Summary

Chapter three outlined the correlational research design of this study, highlighting the rationale for using self-report measures. This chapter described the research focus, which was to determine whether there were differences in attachment styles among individuals with BPD and whether a specific insecure attachment style would be associated with increased BPD symptoms. Next, the chapter described the population that this research sought to examine and how these participants were recruited on various social media platforms (i.e., Instagram, FaceBook, TikTok) or online public forums (e.g., Reddit). This chapter then detailed the phases of data collection, detailing the order in which participants were presented with the consent form, eligibility criteria, comorbid conditions, demographics, ZAN-BPD, and the ECR-RS. The chapter then described how the data was collected and recorded in Qualtrics and exported to SPSS, where the data was analyzed. The chapter briefly discussed how the data was analyzed and which statistical analyses were used. This chapter ended with a description of how the study was terminated and ended after data analysis had been completed.

Chapter Four: Evaluation

Introduction

Chapter Four describes the evaluation portion of the research study. The chapter begins by describing the Summary Statistics and outlining the demographic characteristics of the participants. Next, the chapter details the methodology for measuring the severity of each participant's BPD symptomatology based on their responses to the ZAN-BPD screening instrument. The chapter then discusses how each participant's attachment style was calculated and coded based on their attachment-related anxiety and attachment-related avoidance reported on the ECR-RS. Subsequently, the chapter describes the tests conducted to determine if there was a relationship between attachment styles with respect to each interpersonal target and whether different attachment styles were correlated with stronger severity of BPD Symptoms. The chapter then describes the methods used to determine whether there were correlations between six of the variables measured in the study. Lastly, the chapter finalizes with the percentages of each attachment style with respect to each interpersonal target and the most common attachment styles in this population with respect to each interpersonal target.

Demographics

Summary Statistics

Ethnicity. Table 1 provides the frequencies and percentages of each ethnicity among the 64 participants who completed the study. In order to determine the distribution of ethnicity, summary statistics were computed. The corresponding ethnicities with frequencies and percentages of participants were as follows, respectively: American Indian or Alaska Native (*n* = 1, 1.6%), Asian (*n* = 6, 9.4%), Black or African American (*n* = 1, 1.6%), Caucasian/ White (*n* =

43, 67.2%), Hispanic of any race (*n* = 7, 10.9%), Other (*n* = 3, 4.7%), and Two or more races (*n* = 3, 4.7%).

Gender. Table 1 provides the frequencies and percentages of the genders represented among the 64 participants who completed the study. In order to determine the distribution of gender, summary statistics were computed. The corresponding genders with frequencies and percentage of participants were as follows, respectively: Female (*n* = 42, 65.6%), Gender Variant/ Non-Conforming/ Non-binary (*n* = 4, 6.3%), Male (*n* = 13 , 20.3%), Prefer not to answer (*n* = 2, 3.1%), Transgender Female (*n* = 1, 1.6%), and Transgender Male (*n* = 2, 3.1%).

Sexual Orientation. Table 1 provides the frequencies and percentages of the sexual orientations reported by the 64 participants who completed the study. In order to determine the distribution of sexual orientation, summary statistics were computed. The corresponding sexual orientations with frequencies and percentages of participants were as follows, respectively: Bisexual (*n* = 18, 28.1%), Lesbian (*n* = 4, 6.3%), Prefer not to answer (*n* = 1, 1.6%), Queer (*n* = 6, 9.4%), and Straight/ Heterosexual (*n* = 35, 54.7%).

Highest Level of Education. Table 1 provides the frequencies and percentages of the highest level of education reported by the 64 participants who completed the study. In order to determine the distribution of the highest level of education, summary statistics were computed. The corresponding education levels with frequencies and percentages of participants were as follows, respectively: Bachelor's degree (e.g., BA, BS) (*n* = 19, 29.7%), Doctorate (e.g., PhD, EdD) (*n* = 2, 3.1%), High school degree or equivalent (GED) (*n* = 27, 42.2%), Less than a high school diploma (*n* = 6, 9.4%), Master's degree (*n* = 10, 15.6%).

Table 1. Demographic Characteristics Represented by Participants

Ethnicity	*n*	*Percent*
American Indian or Alaska Native	1	1.6%
Asian	6	9.4%
Black or African American	1	1.6%
Caucasian/ White	43	67.2%
Hispanic of any race	7	10.9%
Other	3	4.7%
Two or more races	3	4.7%
Total	64	100.0%
Gender		
Female	42	65.6%
Gender Variant/ Non-Conforming/ Non-Binary	4	6.3%
Male	13	20.3%
Prefer not to answer	2	3.1%
Transgender Female	1	1.6%
Transgender Male	2	3.1%
Total	64	100.0%
Sexual Orientation		
Bisexual	18	28.1%
Lesbian	4	6.3%
Prefer not to answer	1	1.6%
Queer	6	9.4%
Straight/ Heterosexual	35	54.7%
Total	64	100.0%
Level of education		
Bachelor's degree (e.g., BA, BS)	19	29.7%
Doctorate (e.g., PhD, EdD)	2	3.1%
High school degree or equivalent (GED)	27	42.2%
Less than a high school diploma	6	9.4%
Master's degree (e.g., MA, MS, MEd)	10	15.6%
Total	64	100.0

Age & Household Income. Table 2 provides the mean and standard deviation for the ages and household incomes represented by the participants. The mean age among participants was 29.58 years old (*SD* = 9.522, Range = 18-66). The mean household income was $94,426.31 (*SD* = 149,412.43).

Table 2. *Mean and Standard Deviation of Age and Household Income*

Report	*Age*	*Household Income*
Mean	29.58	94426.31
N	64	64
Std. Deviation	9.52	149412.43

Based on summary statistics of demographics, it seems there was a fairly representative sample of the population, and it is reasonable to continue with the rest of the analysis.

Data Analysis

Severity of BPD Symptoms

After collecting the data, the researcher utilized univariate analyses in SPSS to obtain summary statistics including each participant's total number of BPD symptoms. When participants responded "no" to items on the ZAN-BPD instrument, this was stored as a score of 0, and when they responded "yes" to items on the ZAN-BPD, this received a score of 1. Each participant's total BPD symptoms score was calculated by adding together the values in each dummy variable column on SPSS and storing it in a separate column called "Total BPD Symptoms." This column was eventually used in One-Way ANOVA tests to determine whether

there were significant differences in BPD symptom severity between different attachment groups that were calculated from participants' scores based on their responses to the ECR-RS.

Classification of Attachment Styles

Next, each participant's average attachment-related anxiety and average attachment-related avoidance scores were calculated with respect to their primary caregiver, and a second time with respect to their significant other (or close friend if they did not have a significant other). Participants were classified into one of four attachment types: 1) autonomous-secure, 2) dismissing-avoidant, 3) preoccupied-anxious, or 4) disorganized (fearful-avoidant). The first time they were classified with one of these attachments with respect to a primary caregiver, and the second time with respect to a significant other (or close friend).

Participants' attachment styles were determined by their average anxiety and average avoidance scores on the ECR-RS. The first time they responded to the ECR-RS, they answered the items on the instrument with respect to a primary caregiver, and the second time with respect to a significant other or close friend. Participants' responses were then calculated to determine their average anxiety and avoidance scores for their primary caregiver. The following responses corresponded with the following values when analyzing the data: Strongly disagree (1), Disagree (2), Somewhat disagree (3), Neither agree nor disagree (4), Somewhat agree (5), Agree (6), and Strongly agree (7). Average anxiety scores were calculated by computing the average of items 7-9 on the ECR-RS, whereas average avoidance scores were computed by computing the mean score of items 1-6 and reverse keying items 1, 2, 3, and 4. This process was conducted two times. The first time, the mean anxiety and avoidance scores were calculated based on each

participant's responses towards their primary caregiver, and the second time these were calculated based on their responses towards their significant other or close friend (Fraley, 2011).

An average anxiety and avoidance score of 1-4 indicated a secure attachment style. Average anxiety scores of 1-4 and average avoidance scores of 4.01-7 were under the dismissing-avoidant attachment style, whereas an average anxiety score of 4.01-7 and an average avoidance score of 1-4 indicated a preoccupied-anxious attachment. A fearful-disorganized attachment was associated with an average anxiety score of 4.01-7 and an average avoidance score of 4.01-7. These scoring criteria classified each participants' attachment styles for both their primary caregivers and significant others (or close friends).

After each participant was given their attachment styles with respect to each interpersonal target, their attachment styles were coded into a numerical format. Participants were coded into either 1) secure-autonomous, 2) dismissing-avoidant, 3) preoccupied-anxious, or 4) fearful-disorganized. This code was computed twice to indicate for their attachment towards their primary caregiver and significant other or close friend. After coding each participant's attachment style, their total number of BPD symptoms was eventually calculated, with a higher number of BPD symptoms indicating increased severity of BPD symptoms.

Frequency of Each Attachment (Primary Caregiver)

The first research question sought to determine whether individuals would demonstrate a difference in insecure attachment styles with respect to a primary caregiver. To determine whether there were differences in attachment styles with respect to primary caregivers, the frequency of each attachment was found and recorded in Table 3. The frequency of each attachment and corresponding percentage of participants who attach to their primary caregivers

were as follows: Anxious-Preoccupied (*n* = 5, 7.8%), Avoidant-Dismissing (*n* = 26, 40.6%), Disorganized-Fearful (*n* = 23, 35.9%), Secure (*n* = 10, 15.6%). The most common attachment style with respect to a primary caregiver was Avoidant-Dismissing (*n* = 23), and the least common attachment with respect to a primary caregiver was Anxious-Preoccupied (*n* = 5). Thus, these findings demonstrate differences in insecure attachment styles towards a primary caregiver.

Table 3. Frequency of Each Attachment Style with Respect to Primary Caregiver

Attachment Style	N	Valid Percent
Anxious-Preoccupied	5	7.8%
Avoidant-Dismissing	26	40.6%
Disorganized-Fearful	23	35.9%
Secure	10	15.6%
Total	64	100.0%

Frequency of Each Attachment (Significant Other)

The second research question asked whether adults with BPD would demonstrate a difference in insecure attachment styles with respect to a significant other or close friend. To determine whether there were differences in attachment styles with respect to significant others, the frequency of each attachment was found and recorded in Table 4. The frequency of each attachment and corresponding percentage of participants who attach to their primary caregivers were as follows: Anxious-Preoccupied (*n* = 42, 65.6%), Avoidant-Dismissing (*n* = 4, 6.3%), Disorganized-Fearful (*n* = 6, 9.4%), Secure (*n* = 12, 18.8%). The most common attachment style

with respect to a significant other was Anxious-Preoccupied (n = 42), and the least common attachment with respect to a significant other was Avoidant-Dismissing (n = 4). These findings demonstrate differences in insecure attachment styles towards significant others.

Table 4. Frequency of Each Attachment Style with Respect to a Significant Other

Attachment Style	N	Valid Percent
Anxious-Preoccupied	42	65.6%
Avoidant-Dismissing	4	6.3%
Disorganized-Fearful	6	9.4%
Secure	12	18.8%
Total	64	100.0

One-Way ANOVA: Differences Between Attachment Groups (Primary Caregiver)

The third research question inquired whether there would be a difference in the mean number of BPD symptoms between different groups of attachment styles with respect to primary caregivers. A One-Way ANOVA test was conducted to determine if there were significant differences in the mean number of BPD symptoms between or within the coded attachment styles with respect to primary caregivers. While running this statistical analysis, attachment styles towards a primary caregiver served as the independent variable and the mean number of BPD symptoms in attachment groups served the dependent variable. Given that the F score of 3.519 with 3, 60 degrees of freedom corresponded to a p value of 0.02 at the .05 significance level, there was statistically significant evidence that the mean number of BPD symptoms varied

for at least one of the attachment styles. Thus, these findings indicated there were differences in the mean BPD symptoms between attachment groups with respect toa primary caregiver. Tukey HSD Post Hoc Tests were subsequently conducted to determine which attachment groups demonstrated statistically significant differences in BPD symptomatology.

Tukey HSD Post-Hoc Test: Primary Caregiver

After conducting the One-Way ANOVA and determining that the mean number of BPD symptoms differed between at least one of the groups with respect to a primary caregiver, it was reasonable to proceed with a Tukey HSD Post-Hoc Test. Those with a secure attachment (Group 1) demonstrated significantly less BPD symptoms than the dismissing-avoidant insecure attachment (Group 2) and the fearful-disorganized attachment (Group 4) with respect to a primary caregiver.

Table 5. Comparing BPD Symptoms Between Attachment Styles for Primary Caregiver (PC)

	(I) PC Code	(J) PC Code	Mean Difference (I-J)	Std. Error	T Ratio	Sig.	95% Confidence Lower Bound	95% Confidence Upper Bound
Tukey HSD	1.00	2.00	-1.500*	.513	-2.92	**.025**	-2.86	-.14
		3.00	-1.700	.756	-2.25	.122	-3.70	.30
		4.00	-1.543*	.523	-2.95	**.023**	-2.92	-.16
	2.00	1.00	1.500*	.513	2.92	**.025**	.14	2.86
		3.00	-.200	.674	-0.30	.991	-1.98	1.58
		4.00	-.043	.395	-0.11	1.000	-1.09	1.00
	3.00	1.00	1.700	.756	2.25	.122	-.30	3.70
		2.00	.200	.674	0.30	.991	-1.58	1.98
		4.00	.157	.681	0.23	.996	-1.64	1.96
	4.00	1.00	1.543*	.523	2.95	**.023**	.16	2.92
		2.00	.043	.395	0.11	1.00	-1.00	1.09
		3.00	-.157	.681	-0.23	.996	-1.96	1.64

*. The mean difference is significant at the 0.05 level.

PC Code 1: Secure attachment
PC Code 2: Dismissing-avoidant attachment
PC Code 3: Preoccupied-anxious attachment
PC Code 4: Fearful-disorganized attachment

One-Way ANOVA: Differences Between Attachment Groups (Significant Other)

The fourth research question examined whether there would be a difference in the mean number of BPD symptoms between different groups of attachment styles with respect to a significant other. Consistent with the process conducted to determine whether there were significant differences in mean BPD symptoms across attachment groups towards a primary caregiver, the same tests were utilized with respect to attachment groups towards a significant other. A One-Way ANOVA test was conducted to determine if there were significant differences in BPD symptom severity between or within the coded attachment styles with respect to significant others. While running this statistical analysis, the independent variable was the attachment style with respect to a significant other (or close friend) and the dependent variable was the mean number of BPD symptoms. Given that the F statistic of 6.391 with 3, 60 degrees of freedom corresponded to a *p* value of <.001 at the .05 significance level, there was statistically significant evidence that the mean number of BPD symptoms varied for at least one of the attachment styles. Thus, these findings indicated there were differences in the mean BPD symptoms between attachment groups with respect to a significant other. Tukey HSD Post Hoc Tests were eventually conducted to determine which attachment groups demonstrated statistically significant differences in BPD symptomatology.

Tukey HSD Post-Hoc Test: Significant Other

Following the One-Way ANOVA and finding that the mean number of BPD symptoms differed between at least one of the groups with respect to a significant other, it was reasonable to proceed with a Tukey HSD Post-Hoc Test. Those with an insecure dismissing-avoidant attachment (Group 2) demonstrated a significant difference in levels of BPD symptomatology

than the insecure preoccupied-anxious attachment (Group 3). A 95% confidence level was used and demonstrates that the insecure dismissing-avoidant attachment (Group 2) has on average between .91 and 4.52 fewer reported BPD symptoms compared to the insecure preoccupied-anxious attachment (Group 3).

Table 6. Comparing BPD Symptoms Between Attachment Styles for Significant Other (SO)

	(I) PC Code	(J) PC Code	Mean Difference (I-J)	Std. Error	T Ratio	Sig.	95% Confidence Lower Bound	95% Confidence Upper Bound
Tukey HSD	1.00	2.00	1.750	.752	2.33	.103	-.24	3.74
		3.00	-.964	.426	-2.26	.119	-2.09	.16
		4.00	-.250	.651	-0.38	.981	-1.97	1.47
	2.00	1.00	-1.750	.752	-2.33	.103	-3.74	.24
		3.00	-2.714	.682	-3.98	**.001**	-4.52	-.91
		4.00	-2.000	.841	-2.38	.092	-4.22	.22
	3.00	1.00	.964	.426	2.26	.119	-.16	2.09
		2.00	2.714	.682	3.98	**.001**	.91	4.52
		4.00	.714	.569	1.25	.594	-.79	2.22
	4.00	1.00	.250	.651	0.38	.981	-1.47	1.97
		2.00	2.000	0.841	2.38	.092	-.22	4.22
		3.00	-.714	.569	-1.25	.594	-2.22	.79

*. The mean difference is significant at the 0.05 level.

SO Code 1: Secure attachment
SO Code 2: Dismissing-avoidant attachment
SO Code 3: Preoccupied-anxious attachment
SO Code 4: Fearful-disorganized attachment

Correlation Matrix

To determine whether correlations existed between specific variables, a correlation matrix was created. The matrix examined whether there were correlations between the following six variables: total comorbidities, total number of BPD symptoms, average anxiety (primary caregiver), average avoidance (primary caregiver), average anxiety (significant other), and average avoidance (significant other). The matrix sought to determine if there is a statistically significant correlation between any pair of those variables. The matrix allowed researchers to perform 15 different hypothesis tests all in the following form:

H_0: There is no correlation between variable A and variable B.

H_1: There is a correlation between variable A and variable B.

As demonstrated by the outputs in Table 7, there is a significant positive relationship between primary caregiver average avoidance and total number of BPD symptoms. There is also a positive significant relationship between average anxiety with respect to a significant other and total number of BPD symptoms. The remaining pairs do not have a significant correlation between them.

Table 7. Correlation Matrix

	1	2	3	4	5	6
1	1					
2	.19	1				
3	.12	.24	1			
4	-.03	**.25***	.23	1		
5	-.06	**.50****	.22	.03	1	
6	.01	-.09	.14	-.02	.18	1

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

1 Total Comorbidities

2 Total BPD Symptoms

3 Primary Caregiver Average Anxiety

4 Primary Caregiver Average Avoidance

5 Significant Other Average Anxiety

6 Significant Other Average Avoidance

Marginal Distribution

Marginal distributions were created to obtain the frequencies of each attachment style with respect to both interpersonal targets. The marginal distribution allowed researchers to compute the percentages of each attachment style towards the primary caregiver and significant other. Based on the output in Table 8, the frequency of participants that possessed the same attachment style with respect to both interpersonal targets was recorded as follows: Anxious-Preoccupied (n = 4, 6.2%), Avoidant-Dismissing (n = 2, 3.1%), Disorganized-Fearful (n = 2, 3.1%), Secure (n = 1, 1.6%). The most common attachment style with respect to a significant

other was Anxious-Preoccupied (n = 42, 65.6%). Individuals with an Anxious-Preoccupied attachment towards their significant other were most likely to demonstrate a Disorganized-Fearful attachment towards their primary caregiver (n = 17, 26.6%) or Avoidant-Dismissing attachment towards their primary caregiver (n = 15, 23.4%).

Table 8. Marginal Distribution of Attachment Style Frequency

	Anxious-Preoccupied (SO)	Avoidant-Dismissing (SO)	Disorganized-Fearful (SO)	Secure (SO)	Total
Anxious-Preoccupied (PC)	4	0	0	1	5
Avoidant-Dismissing (PC)	15	2	3	6	26
Disorganized-Fearful (PC)	17	0	2	4	23
Secure (PC)	6	2	1	1	10
Total	42	4	6	12	64

PC: Primary Caregiver
SO: Significant Other

Summary

Chapter four highlighted the statistical analyses conducted to evaluate the results. The chapter began with the summary statistics demonstrating the demographic characteristics of participants who completed the study. Next, the chapter outlined the measure involving severity of BPD symptoms and how this variable was measured. The chapter delved into the calculations of average anxiety scores and average avoidance scores that helped determine each participant's attachment with respect to their primary caregiver and significant other. This chapter described

correlations between selected variables examined and concluded with the most common attachment styles demonstrated by participants with respect to each interpersonal target.

Chapter Five: Discussion

Introduction

Chapter five describes and interprets the findings of this study. In the discussion section, there are potential explanations for some of the findings that were present after analyzing the data. This chapter outlines a few limitations to this study and describes future research directions. The chapter concludes with a description regarding the benefits of this study to future clinicians and how this can help individuals working with clients diagnosed with BPD or in the micro level setting.

Discussion

The purpose of this study was to determine whether there would be differences in insecure attachment styles among individuals with BPD and whether there would be a difference in the mean number of BPD symptoms between attachment groups. This study utilized a correlational design with self-report measures to evaluate whether specific attachment style(s) demonstrated by the participants would be associated with increased symptom severity. The data was collected from 64 participants who were at least 18 years old and had been professionally diagnosed with BPD, with all participants being recruited from social media platforms and online public forums. After collecting data from the 64 participants who completed the study, the data was analyzed to determine whether there were differences in insecure attachments among participants with respect to both interpersonal targets. Following this step, One-Way ANOVAs were conducted to determine whether there were significant differences in mean BPD symptoms between attachment groups towards each interpersonal target. These tests suggested that there

were significant differences in the mean number of BPD symptoms between at least one of the attachment groups which provided sufficient reason to perform Post-Hoc Tukey HSD tests.

The first hypothesis in this study (Hypothesis 1) suggested that there would be a difference in attachment styles with respect to a primary caregiver among adults with BPD. Based on the findings from this study, Hypothesis 1 is accepted as differences in attachment styles towards a primary caregiver were present, with the following frequencies and percentages of participants being classified under the following attachment groups: Anxious-Preoccupied (*n* = 5, 7.8%), Avoidant-Dismissing (*n* = 23, 40.6%), Disorganized-Fearful (*n* = 23, 35.9%) and Secure-Autonomous (*n* = 10, 15.6%). These findings partially support previous literature suggesting that individuals with BPD are more likely to demonstrate fearful or preoccupied attachment styles than healthy controls (Hashworth et al., 2021). This is evidenced by 35.9% of participants from this sample demonstrating a fearful attachment towards a primary caregiver. The findings from this study also contradict this finding by Hashworth et al. (2021), with participants in this study being the least likely to demonstrate a preoccupied attachment towards a primary caregiver. However, the research by Hashworth et al. (2021) only examined participants' attachment styles towards a relationship partner as opposed to a primary caregiver in this study, perhaps indicating this difference in attachment styles represented. In this study, 15.6% of participants demonstrated secure attachment styles towards their primary caregiver, which was also inconsistent with previous literature suggesting that individuals with BPD typically exhibit insecure attachment styles (Hashworth et al., 2021).

It was unexpected that individuals with BPD would demonstrate secure attachments towards a primary caregiver. Research has consistently shown that individuals with BPD

typically report significantly higher levels of childhood maltreatment (Wilson et al., 2020), which can lead to insecure attachments later in life. However, it is possible that participants with BPD from this sample experienced childhood trauma that was not inflicted by their primary caregiver. Another potential explanation for this finding is that participants in this study could have responded to the ECR-RS with respect to a primary caregiver who was not abusive or neglectful. It is also plausible that participants with BPD experienced childhood maltreatment during their childhood years with their primary caregiver, but currently exhibit secure attachments with them if their relationship has significantly improved since their childhood. Participants were recruited from BPD groups on social media platforms or online public forums, with many individuals on these platforms referring to themselves as "Self-aware Borderlines," (Haas, 2023). Individuals who are self-aware of their childhood traumatic experiences and diagnosis could have participated in family therapy or other mental health treatments to improve their relationship with their primary caregiver and develop a secure attachment with them.

The second hypothesis (Hypothesis 2) stated that participants would demonstrate a difference in insecure attachment styles with respect to a significant other (or close friend). There were various insecure attachment styles represented by participants with respect to a significant other which led to the acceptance of Hypothesis 2. The number and percentage of participants with each attachment style towards this interpersonal target were represented as follows: Anxious-Preoccupied (n = 42, 65.6%), Avoidant-Dismissing (n = 4, 6.3%), Disorganized-Fearful (n = 6, 9.4%), Secure (n = 12, 18.8%). Over half of the participants in this study exhibited preoccupied attachments towards their significant other, which partially supports research indicating that individuals with BPD typically exhibit preoccupied or fearful attachments. Only a

small percentage of individuals demonstrated disorganized-fearful attachments towards a significant other which also contradicts previous findings (Hashworth et al., 2021). It is possible that individuals with BPD tend to demonstrate fearful-disorganized attachments towards a primary caregiver due to a history of abuse or neglect which is common in this population (Wilson et al., 2020). Perhaps individuals with fearful attachments towards a primary caregiver are more prone to anxious attachments towards future relationship partners, which could explain why a large portion of participants in this study possessed preoccupied-anxious attachments towards a significant other. It was unexpected that 18.8% of participants would demonstrate a secure attachment towards their significant other due to findings from previous literature (Hashworth et al., 2021).There are a few possible explanations for this phenomenon occurring.

The mean age of the participants was 29.58 years old with a standard deviation of 9.52 (M = 29.58, SD = 9.52). Individuals who are at least 18 and participated in this study have access to technology which may lead to exceptionally higher rates of self-awareness than previous generations. TikTok is a platform that has been described as a "community" for individuals and often serves as a learning resource to many individuals who use the App (Chew, 2023). Individuals on TikTok and other social media platforms have higher accessibility to learn about mental health and symptoms of mental disorders that they may not have recognized otherwise. There are thousands of individuals on TikTok who discuss mental health and the manifestation of their BPD traits. When individuals with BPD watch videos about mental health on social media platforms, it is possible that they learn more about the disorder and are able to exert more control over their behavior as they become more self-aware.

Several individuals on TikTok discuss their experiences being a “Self-aware Borderline,” or someone who has been professionally diagnosed and recognizes the traits they possess. These individuals discuss their experiences prior to their diagnosis such as self-sabotaging jobs and relationships, having anger outbursts, and constantly worrying that others would abandon them (Sarfo, 2022). Many of these individuals have described their quality of life following their diagnosis and have described that they attend therapy which has allowed them to become more self-aware (Courtney, 2021). Often, these individuals report their recognition of their behaviors such as intense anger outbursts and find it hard to control themselves (Haas, 2023). Brain scans among individuals with BPD often demonstrate low frontal lobe activity which is manifested by impulsivity and high anterior cingulate gyrus activity which may be demonstrated through their idealization and devaluation of others. Psychiatrists have suggested that mood stabilizers often help reduce overactivity in the anterior cingulate gyrus and medications that increase the level of serotonin are helpful to this population. Treatments such as Eye Movement Desensitization and Reprocessing (EMDR) for past traumas have been deemed helpful towards this population in addition to DBT (Amen, 2023). Thus, if self-aware individuals with BPD participate in therapy and receive mental health treatments, it is possible that individuals with this disorder are able to regain control over their behaviors and emotions.

Individuals who participated in this study were members of BPD groups or posted about their diagnosis on TikTok, indicating that they possess a level of self-awareness about their diagnosis. It is possible that individuals who are aware of their diagnosis have participated in therapy and obtained mental health treatments to alleviate certain traits of the disorder, such as an intense fear of abandonment, allowing them to develop secure attachments in adulthood. This

could explain why 18.8% of the participants demonstrated secure attachments towards these interpersonal targets in this sample, thereby indicating a potential bias in this study. Individuals who participated in this study were aware of their diagnosis as they were in BPD groups on social media and online public forums, increasing their likelihood of being in therapy or receiving other mental health treatments. Thus, the results from this study may not be applicable to individuals who are not self-aware that they fit criteria for the disorder or more severe cases of the disorder, such as individuals with the disorder who are in inpatient psychiatric units.

In order to determine whether specific attachment styles towards each interpersonal target were correlated with increased symptom severity, One-Way ANOVAs and Post-Hoc Tukey HSD tests were conducted. To determine whether the mean number of BPD symptoms differed between attachment groups with respect to primary caregivers, a One-Way ANOVA was conducted. The One-Way ANOVA test suggested that the mean number of BPD symptoms differed between at least one of the groups [$F(3, 60) = 3.519$, $p = .02$] at a significance level of $p < .05$, indicating it was reasonable to conduct a Tukey HSD test. The Tukey HSD test indicated that participants with dismissing-avoidant and fearful-disorganized attachments reported significantly higher BPD symptoms than those with secure attachments with respect to a primary caregiver. Therefore, Hypothesis 3 which stated that the mean number of BPD symptoms would differ between at least one of the attachment groups towards a primary caregiver was accepted.

It is possible that individuals with dismissing-avoidant or fearful-disorganized attachments towards their primary caregiver demonstrate these attachment styles if their caregiver was neglectful or abusive during childhood. This may lead them to exhibit increased symptom severity due to unfulfilled relational needs during their childhood (Holmes, 1993).

Previous literature has indicated that preoccupied attachments are associated with increased symptom severity (Pourshahriar et al., 2017), but these studies have solely examined attachment styles towards relationship partners rather than a primary caregiver. The findings from this study demonstrated that fearful and dismissive attachment styles towards primary caregivers also play a role in increased BPD symptom severity.

Childhood neglect or abuse could result in a dismissive attachment towards their primary caregiver if they recognize that the caregiver was abusive or absent and that they could not depend on their caregiver for the affection and safety needed during childhood. This may lead to increased traits of BPD symptoms such (e.g., angry outbursts and emotional dysregulation) when these individuals interact with their caregivers because they are uncertain about being abandoned or abused again. This uncertainty may lead to enhanced traits of BPD, such as emotional dysregulation, heightened anxiety, and other neurotic features. Individuals with a fearful-disorganized attachment may also demonstrate increased BPD symptom severity in comparison with securely attached individuals due to a fear of abuse and neglect. Fearful-disorganized attachments are frequently linked to a history of abuse and neglect (Rokach & Clayton, 2023). Individuals with fearful-disorganized attachments towards a primary caregiver may experience more traits of BPD due to genetic vulnerabilities combined with childhood traumatic experiences that resulted in the inability to self-soothe and emotionally regulate. This could result in traits of BPD such as an intense fear of abandonment, anxiety, and emotional dysregulation due to uncertainty of the treatment they would receive from an abusive primary caregiver. There was another significant difference in BPD symptoms between attachment groups in this study which was based on participant's attachment towards their significant other.

The fourth hypothesis in this study (Hypothesis 4) stated that there would be a difference in the mean number of BPD symptoms between at least one of the attachment groups with respect to a significant other. Hypothesis 4 was accepted as findings from the One-Way ANOVA indicated there was statistically significant evidence that the mean number of BPD symptoms varied for at least one of the attachment groups [$F(3, 60) = 6.391$, $p < .001$]. After conducting the Post-Hoc Tukey HSD test with a significance level of $p < .05$, it was found that on average, participants with a preoccupied-anxious attachment demonstrated between .91 and 4.52 more symptoms of BPD than participants with a dismissive-avoidant attachment. This indicated that individuals with preoccupied-anxious attachments towards a significant other demonstrated significantly higher levels of BPD traits than individuals with a dismissive-avoidant attachment, which supports previous research (Pourshahriar et al., 2017). This finding also supports statements by self-aware individuals who claim that "90% of the symptoms disappear when you are not in a relationship," (Dalia, 2023) so it is possible individuals become dismissive towards significant others to decrease symptoms of the disorder.

It is possible that individuals with preoccupied-anxious attachments and BPD are more sensitive to detecting perceived or real abandonment from significant others, which can lead to enhanced traits of the disorder. This may be manifested by impulsively ending relationships due to real or perceived threats that their partner will abandon them, impulsive or self-injurious behaviors when relationships end, suicidal gestures when threats are posed to relationships, and other common traits of the disorder. The intense emotional dysregulation in this disorder may be alluded to unresolved attachment representations from childhood traumatic experiences (Kernberg, 1993). Individuals with BPD may experience heightened symptoms due to their fear

of real or perceived abandonment which could lead to traits such as emotional dysregulation, impulsivity, self-injurious behaviors, and anger outbursts. Many of the findings from this study support previous literature indicating that individuals with BPD tend to demonstrate insecure attachments to others. While many of the results from this research support findings from other studies, it is imperative to recognize the limitations of this study.

Limitations and Future Research Directions

There are a few limitations to the presented study that could have affected the results. One limitation to this study is that BPD symptom severity was measured by the number of symptoms and this measure was self-reported by participants. While participants may be self-aware of traits that they possess, they may often overlook or forget certain aspects of their behavior and fail to report other traits of the disorder that they experience. It is also possible that individuals who reported experiencing less symptoms of the disorder may have heightened severity among the fewer traits that they possess. This would make them appear as a lesser severity of illness, but they may have a few traits that lead to more dysfunctionality than individuals who reported experiencing more symptoms. For instance, individuals who answered "yes" to seven questions on the ZAN-BPD questionnaire as opposed to all ten questions may have intense anger issues that have led them to become violent with others or engage in domestic violence. Another individual may have answered "yes" to all ten questions, but their anger may be significantly less frequent or may not be as severe as an individual who engages in domestic violence. Thus, it is possible that measuring severity of BPD symptoms by the number of symptoms reported by participants could be misleading. Some participants could fit criteria for

the disorder by experiencing a lesser number of symptoms, but experience greater dysfunctionality among the symptoms they possess.

Another potential limitation includes that this study did not measure attachment styles over time which could have led to potential biases or misconceptions about the attachment styles represented in this population. Individuals with BPD are significantly more likely to report childhood maltreatment (Wilson et al., 2020), but individuals who participated in this study are adults who are 18 years and older and may no longer live with their primary caregiver. Participants who have experienced childhood maltreatment from their primary caregiver could have improved their relationship with their primary caregiver since their childhood as they may no longer live with them during their adulthood. This could potentially explain why some participants reported having secure attachments with their primary caregivers. In order to determine whether individuals with BPD are more likely to demonstrate insecure attachment styles, it would be imperative to measure their attachment longitudinally. This would allow researchers to determine whether their attachment towards a primary caregiver and others changes over time with the severity of symptoms. However, this is not always feasible as BPD is most often not diagnosed among children.

In order to determine whether attachment towards a primary caregiver and significant other may lead to increased symptom severity, it would be reasonable to conduct a longitudinal study among children with and without traits of the disorder. This could be conducted by recruiting children with and without behavioral problems (e.g., anger issues, impulsive behaviors). It would be imperative for researchers to ensure that these behaviors are not rooted in other childhood disorders, such as Conduct Disorder, Intermittent Explosive Disorder, or

Disruptive Mood Dysregulation Disorder. Researchers could implement a longitudinal study that examines children with and without traits of BPD or behavioral problems associated with BPD throughout their lives. They could examine whether their attachment styles change over time and whether specific traits of BPD increase in severity or if the severity of the illness increases along with attachment insecurity. This would allow researchers to examine the gravity of symptoms represented, whether these traits follow these individuals throughout their lives, and whether their attachment towards a primary caregiver and in other interpersonal relationships.

If any of the participants were dishonest about being professionally diagnosed with BPD by a behavioral health professional, this could have also served as another limitation to the results from this study. Participants were asked to confirm that they had been professionally diagnosed by checking a box that stated "Yes, I have been professionally diagnosed with BPD by a behavioral health professional," but there was no way of indicating whether participants were being honest. It is possible that individuals may watch videos by individuals with mental disorders such as BPD and believe they fit criteria if they share similar traits with individuals diagnosed with the disorder. If participants in this study watched videos about BPD and self-diagnosed, it is possible that they misdiagnosed themselves with BPD and could have fit criteria for other disorders commonly confused with BPD such as Bipolar II Disorder. Studies have compared attachment styles between Bipolar II Disorder (BP-II) with BPD and found no significant differences in anxious and secure attachment styles between the two disorders. However, individuals with BPD have displayed greater levels of avoidant attachment styles than individuals with BP-II (Rahmatinejad et al., 2018). Thus, if any of the participants had

inaccurately self-diagnosed themselves with BPD when they instead fit criteria for disorders such as BP-II, this could have impacted the results, serving as another limitation to this study.

Other limitations to this study include that participants were recruited in BPD groups online, indicating that participants in this study have a level of self-awareness about their disorder, how this manifests in their behavior, and how this impacts their relationships. Participants in this study were recruited from social media platforms and online public forums where others with the disorder would provide advice for coping skills, how their disorder manifests, and why they engage in certain behaviors. The mean age of participants was also 29.58 years old and many of these individuals discussed their experiences on these social media platforms or online public forums. This serves as a potential bias in this study as many individuals were more aware of their behaviors and understood why they engage in certain self-destructive or dysfunctional behaviors. Thus, participants from this sample may be able to exert a greater degree of control over their behaviors than individuals who are not self-aware, allowing them to demonstrate more secure attachments or less severity of illness. Future research should examine attachment styles among individuals with the disorder who exhibit stronger severity of the illness.

Studies in the future could examine attachment styles among individuals with greater severity of the disorder who are recruited from inpatient psychiatric samples. Examining the attachment styles and severity of illness among more severe cases of BPD would be beneficial to determine whether attachment insecurity predicts a greater level of symptoms or whether specific traits can be predicted by specific attachment styles. These studies may help researchers to determine effective treatment methods for individuals who struggle with BPD and severe

attachment issues. This would allow clinicians to most effectively work with clients who struggle with symptoms of BPD and dysfunctional relationships. Understanding the gravity of attachment insecurity among individuals with BPD may also allow clinicians to move away from the stigmatizing categorization of BPD as a personality disorder and eventually re-categorize it as a disorder of severe attachment or a trauma and stressor-related disorder.

Implications for Micro Level Social Work

The findings from this study have supported previous research and indicated that individuals with BPD are more likely to report insecure attachments than secure attachment styles. This study found that insecure attachments vary among individuals with this disorder and that the most predominant attachments vary with respect to different interpersonal targets. Participants in this sample with fearful-disorganized and avoidant-dismissive insecure attachments towards a primary caregiver demonstrated significantly higher levels of BPD symptoms than individuals with secure attachments towards a primary caregiver. With respect to a significant other, participants with preoccupied-anxious attachments reported significantly higher levels of BPD symptoms than participants with dismissive-avoidant attachments. Thus, social workers in the micro level would benefit from this research by accumulating more knowledge about this population to be able to most effectively work with clients diagnosed with the disorder.

By understanding the most common attachment styles among individuals with BPD with respect to a primary caregiver and significant other, clinicians will be able to understand the disorder in greater depth and recognize how insecure attachments can lead to traits of BPD. This research will allow clinicians in micro-level settings to understand the behaviors that individuals

with this disorder exhibit from a clinical, non-judgmental perspective. While working with clients diagnosed with this disorder, it is germane to recognize the importance of a healthy client-therapist relationship to promote positive treatment outcomes. By providing clients in this population with a non-judgmental environment, this allows clients to be more vulnerable during sessions and work through shame-based behaviors.

Conclusion

The presented study sought to determine whether there would be a difference in attachment styles among adults with BPD towards two interpersonal targets including a primary caregiver and a significant other. This study measured severity of BPD symptoms to determine whether specific insecure attachment styles would be correlated with increased symptom severity. In this study, a greater portion of individuals diagnosed with this disorder experienced insecure attachment styles as opposed to secure attachment styles. While there were limitations to this research, some of the findings from this work have supported previous literature. It would be beneficial for future research to examine attachment and symptoms of the disorder with instruments measuring symptom severity from multiple dimensions as opposed to measuring symptom severity based on binary responses. Future research should examine individuals with this disorder in inpatient samples to determine whether these results are consistent with individuals who experience greater severity of illness. Consistently researching attachment and traits of BPD may allow for a deeper understanding of the disorder and for there to be less stigma surrounding this disorder. As clinicians in the field of social work and all areas of mental health, it is imperative to understand disorders such as BPD that commonly present to inpatient samples and provide a non-judgmental environment to promote ideal treatment outcomes.

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Appendix A. Recruitment Script used to Obtain Participants from Social Media Platforms

"Hello there! My name is Christina (Chrissa) Charnas, and I am a master's student at The Ohio State University in the Department of Social Work. I am looking for people to participate in my master's thesis study, but all participation is completely voluntary. I have selected to examine whether there are differences in attachment styles among individuals diagnosed with Borderline Personality Disorder (BPD). If you have been diagnosed with any comorbid psychiatric diagnoses in addition to BPD, such as Bipolar I Disorder, other Cluster B Personality Disorders, anxiety disorders, etc., please list these diagnoses when you are asked about any potential comorbid diagnoses you may have. Also, please inform us when you received any comorbid diagnoses if applicable.

Please note that I am specifically looking for people who have received the BPD diagnosis from a behavioral health professional and not self-diagnosed.

In order to be eligible for participation in this study, you need to meet the following criteria:

- Be at least 18 years of age
- Diagnosed with BPD by a licensed behavioral health professional. Some examples of behavioral health professionals include: social workers (LSW/ LISW), clinical psychologists with a PhD or PsyD, psychiatrists with D.O. or M.D., psychiatric nurse practitioners (NP), etc.

All information will remain anonymous. If you feel uncomfortable at any point during the study, you may withdraw. If you have any questions about this study, feel free to message me, and I will be glad to provide you with any clarification.

If you wish to participate, you will be directed to a website that is secure and anonymous to collect your information. This website is called Qualtrics, and is approved by The Ohio State University for such purposes. To start your participation, please click on the link here [this is where the Qualtrics link will go].

I greatly appreciate your time and consideration in advance. Thank you all!"

Appendix B. Consent Form

The Ohio State University Consent to Participate in Research

Study Title: Attachment Styles and Borderline Personality Disorder Symptom Severity: A Correlational Study

Protocol Number: 2023B0350

Researcher: Chrissa Charnas, PI: Joseph Guada

Sponsor: The Ohio State University

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate.

Your participation is voluntary.

Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate.

Purpose: The purpose of this study is to determine whether there are differences in attachment styles among people professionally diagnosed with Borderline Personality Disorder (BPD).

Procedures/ Tasks: Participation in this study will involve completion of a few demographics questions, an extended response question asking about any other diagnoses you may have and when you were diagnosed with them, and the completion of two surveys. The first survey will measure your level of BPD symptomatology, and the second survey will measure the kind of attachment you have. The second survey will be conducted twice. The first time, you will be asked to respond to the second questionnaire regarding a primary caregiver. Next, you will be asked to respond to the second questionnaire regarding a significant other (if you do not have a significant other, you may opt to respond to this questionnaire about a close friend).

Duration: Participation is expected to take approximately 10-15 minutes to complete. You may choose to discontinue or withdraw from the study at any time. If you decide to withdraw, there will be no penalty to you.

You may leave the study at any time. If you decide to stop participating in the study, there will be no penalty to you, and you will not lose any benefits to which you are otherwise entitled. Your decision will not affect your future relationship with The Ohio State University.

Risks and Benefits: Participation in this study involves little to no anticipated risks. By participating, you may feel mild discomfort about memories or personal relationships. There is no direct benefit to you by participating. However, some feel glad that they participated in a study that can help others similar to themselves.

Confidentiality: We will work to make sure that no one sees your online responses without approval. But, because we are using the Internet, there is a chance that someone could access your online responses without permission. In some cases, this information could be used to identify you.

Also, there may be circumstances where this information must be released, For example, personal information regarding your participation in this study may be disclosed if required by state law. Also, your records may be reviewed by the following groups (as applicable to the research):

- Office for Human Research Protections or other federal, state, or international regulatory agencies;
- The Ohio State University Institutional Review Board or Office of Responsible Research Practices;
- Authorized Ohio State University staff not involved in the study may be aware that you are participating in a research study and have access to your information; and
- The sponsor, if any, or agency (including the Food and Drug Administration for FDA-regulated research) supporting the study.

Future Research: Your de-identified information may be used or shared with other researchers without your additional informed consent.

Participant Rights: You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at Ohio State, your decision will not affect your grades or employment status.

If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. By agreeing to participate, you do not give up any personal legal rights you may have as a participant in this study.

An Institutional Review Board responsible for human subjects research at The Ohio State University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.

Contacts and Questions:
For questions, or concerns, or complaints about the study, or you feel you have been harmed as a result of study participation, you may contact Chrissa Charnas at charnas.18@buckeyemail.osu.edu and/ or Dr. Guada at guada.1@osu.edu .

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Office of Responsible Research Practices at 1-800-678-6251 or hsconcerns@osu.edu.

Providing consent

I have read (or someone has read to me) this page and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study. I am not giving up any legal rights by agreeing to participate.