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The Effect of Social Media use on Physical Isolation in Individuals with Borderline Personality Disorder

Davena Limitless Longshore
Walden University

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Walden University

College of Social and Behavioral Sciences

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Davena L. Longshore

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Walden University
2021

Abstract

The Effect of Social Media use on Physical Isolation in Individuals with Borderline

Personality Disorder.

by

Davena L. Longshore

MS, Walden University, 2017

MIS, University of Phoenix, 2008

BA, Florida Atlantic University, 2004

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

August 2021

Abstract

Individuals with borderline personality disorder (BPD) experience extreme interpersonal conflict, crippling their ability to sustain successful relationships. Consequently, clinicians within the psychological field face difficulty in devising treatments plans which can assist these individuals with suffering minimal relationship loss. The purpose of this study was to understand how current technological methods of social interaction affect individuals who suffer from BPD to improve treatment outcomes. This research was guided by the principles of attachment theory and social baseline theory. A quantitative correlational design using social network analysis and multiple regression analysis was used to examine data from surveys. Participants were solicited using the social media platforms Facebook, Instagram, and Twitter. The final sample included six males, 64 females, and four individuals who identified as other. The standardized instruments used to examine the relationship between social media usage and physical isolation in individuals who suffer from BPD were the Five-Factor Borderline Inventory Short Form, Interpersonal Support Evaluation List-12, Perceived Social Support Tool, Social Media Use Questionnaire, and the Social Isolation Scale. The study results revealed that 14% of the variation in social isolation within the sample was contributed to social media usage, implying that social media usage increases social isolation in individuals who suffer from BPD. This information may lead to positive social change by assisting individuals who suffer from BPD and their practitioners in understanding how the use of social media can further impact their ability to create and maintain relationships in the physical world.

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Dedication

This research is dedicated to my children Judah, Jada, and Jael who sacrificed so their mother could positively impact the lives of others. I hope this research sets the tone for them to accomplish their goals in life. This research is also dedicated to my aunt Carolyn, a social worker and dedicated mental health clinician. I pursued my doctoral degree so that both of us would be proud.

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Chapter 1: Introduction to the Study

Introduction

Individuals who suffer from borderline personality disorder (BPD) experience extreme difficulty in achieving healthy social relationships. Existing research indicates those with the disorder maintain fewer relationships due to perceived abandonment and fluctuations between devaluation and idealization in interpersonal relationships (Lazarus & Cheavens, 2017; Liebke et al., 2017). Individuals with BPD experience a range of unsteady and unpredictable behaviors making it difficult for them to find, attach, and commit in interpersonal relationships. Consequently, individuals with the disorder severely lack in social skills and the interaction necessary to facilitate its growth.

While many studies focus on the face-to-face social interactions of individuals who suffer from BPD, there is a gap in the literature concerning their interaction via social media outlets and its effect on treatment outcomes. Beeney et al. (2018) suggested further research study on the social networks of individuals with BPD. Brusilovskiy et al. (2016) suggested researchers investigate the impact of social media on individuals with BPD and Lazarus et al. (2016) suggested researchers conduct more studies on how social network characteristics impact the emotional state of individuals with BPD. In an ever-changing technological society, more research on social media's effects on individuals with BPD is warranted. To better serve these individuals and their families, clinicians should have access to current research which can assist in reducing BPD symptomology and its distressing effect on interpersonal relationships.

This chapter begins with referencing the most current research on BPD and the usage of social media by individuals with personality and other mental disorders. Next, I consider the correlations between social media usage and mental health. An overview of attachment theory and Coan's social baseline theory, which serve as the theoretical foundations for this study, is provided. Following the discussion of the theoretical foundation for this study is an explanation of the research design and the significance of this study. Chapter 1 concludes with a summary and transition into Chapter 2.

Background of the Study

Individuals who suffer from BPD experience difficulties within their social networks due to fluctuations in mood. Beeney et al. (2018) studied the social networks of individuals with BPD to understand the social difficulties experienced in social integration, support, and relationships. They conducted a quantitative study of 142 participants using social network analysis. The authors' key finding was that participants with high BPD symptoms had closer relationships with those who were less central to their social network. Beeney et al. suggested further research is needed to determine how changes in social network structure affect individuals with BPD.

Lazarus and Cheavens (2017) conducted a quantitative study to examine the social network quality of individuals with BPD. The authors replicated findings that point to deficits in objective and subjective social network qualities for those with BPD by using a sample of 53 female participants over the age of 18. They found women with BPD had significantly lower quality relationships than those without a mental disorder.

Lazarus and Cheavens suggested further research be conducted incorporating male participants to make the research findings generalizable.

Lazarus et al. (2016) conducted a quantitative study to examine how BPD features impacted social network characteristics. The researchers found even nonclinical levels of BPD psychopathology are related to poor social network outcomes and RS (rejection sensitivity) is a potential mechanism by which BPD features predict lower social satisfaction. Lazarus et al. suggested further study in understanding the impact of social network characteristics on individuals clinically diagnosed with BPD.

Richmond et al. (2020) conducted a quantitative study to examine the impact of online rejection on individuals with BPD characteristics. The authors subjected 131 university students to online group chat conversations which included statements of inclusion and rejection. They found that individuals with BPD characteristics experienced an increase in negative affect and threat to social needs when rejection was experienced online. Richmond et al. suggested this study be replicated on individuals who meet diagnostic criteria for BPD.

Liebke et al. (2017) studied loneliness and isolation in individuals with BPD. The authors conducted a quantitative study with 80 female participants using the University of California, Los Angeles Loneliness scale, the Social Network Inventory, and the Global Assessment of Functioning to contribute to the understanding of loneliness in Individuals with BPD. They found loneliness was linked to network size, social engagement, and prosocial behavior. Liebke et al. suggested further studies be conducted to investigate

other contributing factors, such as rejection sensitivity or rumination, to increased feelings of loneliness.

Stockdale et al. (2015) conducted a study to examine associations between BPD features, jealousy, and cyberbullying behaviors in adolescents. They found higher levels of BPD features were associated with increased levels of cyberbullying behaviors. Stockdale et al. suggested further research is needed to understand the relationships between multiple personality disorders, jealousy, and aggressive behavior.

Researchers have demonstrated a conflict in results regarding the impact of social media on individuals who suffer from mental disorder. Brusilovskiy et al. (2016) conducted a study to determine whether social media use correlated with community involvement, civic engagement, psychiatric symptoms, quality of life, and loneliness. They found greater intensity and time spent on social media was positively correlated to greater community involvement but were not positively associated with loneliness and more psychiatric symptoms. Brusilovskiy et al. suggested further study be conducted concerning the potential negative effects of social media on individuals with BPD.

Snethen and Zook (2016) used a four-dimensional model of community integration to present how social media activities can support integration for individuals with psychiatric disabilities. They found social media can be used in psychological interventions to assist in integrating individuals with psychiatric disorders in the domains of psychological, physical, social, and independence. Further research suggests the examination of the impact of social media usage by individuals with psychiatric disabilities on the domain of community integration.

On the contrary, Ceglarek and Ward (2016) conducted a quantitative study to examine the relationship between sexual minority youth's social networking site use and their social support, sexual identity strength, and mental health. Ceglarek and Ward found using social media for identity expression and exploration predicted negative mental health outcomes, whereas using social media sites specifically for sexual identity development predicted positive mental health outcomes. The researchers suggested further study on key associations between mental health and social media usage.

Akça et al. (2020) studied the correlation between personality disorders and addiction to social media platforms. They conducted a quantitative study of 510 university students using regression analysis. The authors found that personality pathology was positively correlated to addictive social media usage. Akça et al. (2020) suggested that more research be conducted to understand the maladaptive use of social media platforms among those who suffer from personality dysfunction.

In their research, Csepeli and Nagyfi (2014) studied the social network building of individuals with mental illness. The authors collected quantitative data using an online survey of the Depression Inventory on a sample of 195 Facebook users. They found mental illness could be detected through social media usage and relationships. The researchers suggested further study be directed towards collecting comprehensive data created by the regular usage of social media.

The most recent literature identifies a gap in research related to the impact of social media on individuals who suffer from mental disorders. To date, researchers have received conflicting conclusions which limit their ability to determine whether social

media usage can assist with achieving positive treatment outcomes. As a result, more studies should focus on how technological advancement affects those with mental disorder. This study is needed to assist in gathering more data on the effects of technology on those who suffer from mental disorders where interpersonal relationships are negatively impacted, such as BPD.

Problem Statement

Technology has become a frequently used method of communication with social media. With more than 70% of the American population possessing technology and connecting to the internet (Pew Research Center, 2017), internet usage has become more common than in previous years. Comparably, Carras et al. (2014) found 60% of individuals surveyed with a personality disorder accessed the internet at rates like that of the public. Consequently, social platforms such as Facebook, Instagram, and Snap Chat have become methods of interpersonal relationship creation and maintenance. Snethen and Zook (2016) found social media usage assisted those with mental disorders in socially integrating within their community. Individuals who use social media reap the positive benefits of connecting with those who are geographically far. Conversely, Ceglarek and Ward (2016) found the use of social media can have negative psychological effects on marginalized groups. They found sexual minorities experienced negative mental health outcomes when using social media for identity expression and exploration.

In addition to finding that social media usage can affect some populations negatively, Ceglarek and Ward (2016) indicated there is a direct correlation between increased psychological disturbance and social media usage. While some groups benefit

from social media usage, others do not. On the contrary, Beeney et al. (2018) found individuals with BPD experienced a greater perceived closeness with those whom they shared less face-to-face time. If proximity of individuals is a factor in determining closeness, it can be postulated that social media can provide a potential source of interpersonal relationships for individuals with BPD.

While there is research on the social networks of those with BPD, there is limited research on interactions through the medium of social media. Snethen and Zook (2016) suggested more research be conducted for clinicians to better support those with personality disorders as internet usage increases among the population. As a result, the question of whether social media increases physical isolation in individuals with BPD seems worthy of study in this context.

Purpose of the Study

The purpose of this quantitative correlational study was to determine whether there is a relationship between social media usage and physical isolation in individuals with BPD. First, I aimed to identify whether individuals with BPD experience greater closeness with those met through social media. Liebke et al. (2017) concluded further study was needed to identify contributing factors to perceived loneliness experienced by individuals with BPD. Second, I aimed to determine whether face-to-face contact decreases as social media usage increases with individuals who have BPD. Csepeli and Nagyfi (2014) recommended more studies aim to identify the effect of social media usage on mental disorder. I aimed to explore the relationship between social media and social isolation in individuals with BPD.

Research Question(s) and Hypotheses

RQ1: What is the relationship between social media usage and social media network size in predicting physical isolation in individuals with BPD?

The independent variable, social media usage, was measured using the Social Media Use Questionnaire (SMUQ; Xanidis & Brignell, 2016). Additional independent variables were social media network size and physical social network density which was measured by the Perceived Social Support Tool (SNaPSS; Lei et al., 2019). The dependent variable of physical isolation was measured using the Social Isolation Scale (Cohen et al., 2013). The hypotheses for RQ1 were as follows:

H₀1: In this sample, while controlling for physical social network density, social media network size and social media usage will not significantly impact physical, social isolation in individuals with BPD.

H_a1: In this sample, while controlling for physical social network density, social media network size and social media usage will significantly impact physical, social isolation in individuals with BPD.

RQ2: What is the relationship between social media usage and social network size in predicting perceived face-to-face relationship closeness in individuals with BPD?

The independent variable was social media usage, which was measured by the SMUQ. Additional independent variables were social media network size and physical social network density which was measured by the SNaPSS. The dependent variable, perceived face-to-face relationship closeness, was measured using the Interpersonal Support Evaluation List-12 survey (ISEL-12; Cohen et al., 1985).

H₀2: In this sample, while controlling for physical social network density, social media network size and social media usage will not significantly impact perceived face-to-face relationship closeness in individuals with BPD.

H_a2: In this sample, while controlling for physical social network density, social media network size and social media usage will significantly impact perceived face-to-face relationship closeness in individuals with BPD.

Theoretical/Conceptual Framework for the Study

The theoretical base for this study was Coan's (2008) social baseline model, which states individuals attach more easily to those within closer social proximity. Also, social baseline model theorists postulated proximity-seeking is based upon a related reward. Consequently, the ability to form an attachment diminishes when there is no reward associated with proximity. Coan's social baseline model is supported by the prior research of Bowlby on human attachment, as referenced by Bretherton (1992), and Kernberg's research on object relations theory, as referenced by Buchele and Rutan (2017).

Attachment behavior is exhibited when individuals attempt to maintain proximity with an attachment figure (Biringen, 1994). During infancy, humans attach to caregivers who provide security and response to their emotional and physical needs. As a result, the quality of social interaction between an infant and their caregiver has a positive correlation with a secure attachment (Bretherton, 1992). When an attachment is secured in infancy, individuals are more likely to experience successful social relationships during adulthood.

Social baseline theory states healthy behaviors develop from having adequate social support (Hughes et al., 2012). Consequently, individuals with BPD experience extreme attachment disturbance which emerges during adolescence. This attachment disturbance yields the inability to maintain social relationships. The social baseline model addresses interrelations across social interactions and emotion regulation; therefore, it is being used to understand social relationships of individuals with BPD. Additionally, it offers further guidance on how principles of attachment and the use of metabolic resources affect behavior in individuals with BPD (Coan, 2008).

Nature of the Study

The nature of this study was a quantitative correlational study using the analytic strategy social network analysis (SNA). Clifton et al. (2007) proposed SNA as an effective method of analyzing interpersonal dysfunction in personality disorders. I assessed the online social connections of individuals with BPD using SNA, which was pertinent to determining the relationships between online network size, perceived relationship closeness, and social media usage. Furthermore, quantitative research is consistent with understanding relationships between variables (Cohen et al., 2013), which is the primary focus of this dissertation.

Definitions

Attachment behavior: Biringer (1994) defined attachment behavior as behaviors engaged in to maintain proximity with an attachment figure.

Attachment theory: Attachment theory was originally created by Bowlby as a concept explaining the tendency for humans to form bonds with their caregivers (Biringen, 1994).

Borderline personality disorder: The American Psychiatric Association (2013) defined borderline personality disorder as a disorder characterized by unstable interpersonal relationships, fractured self-image, and impulsivity.

Object relations theory: Object relations theory is a concept created with the assumption humans yearn to relate to others. Buchele and Rutan (2017) defined object relations theory as a conceptualization of the human need for relationships.

Perceived face-to-face relationship closeness: In this study, perceived face-to-face relationship closeness refers to how an individual perceives their relationships with those whom they have face-to-face interactions. Brusilovskiy et al. (2016) stated social media can monopolize time which could be spent on more face-to-face interactions between individuals.

Physical isolation: Physical isolation refers to time spent away from human interaction. Liebke et al. (2017) stated individuals with BPD report higher rates of perceived loneliness, which they defined as a type of social isolation.

Social baseline model: The social baseline model is defined by Coan (2008) as an integration of neuroscientific principles and attachment theory.

Social media network size: Social media network size refers to how many people an individual can interact with using their personal social media account.

Physical social network density: Physical social network density refers to the level of social capital an individual has acquired (Hanneman & Riddle, 2005).

Social isolation: Primack et al. (2017) defined social isolation as an individual's lacking in sense of belonging, engagement, and fulfilling relationships.

Social media usage: For this study, social media usage refers to how often an individual uses an internet-based social platform for the purpose of social interaction.

Assumptions

I conducted this study with the following assumptions:

- Individuals with BPD engage in more social media usage than those who do not suffer from mental disorder.
- The results of this study would assist clinicians who treat individuals with BPD in reducing the symptomology associated with the disorder.
- The FFBI-SF would assist in identifying study participants who meet the minimum Diagnostic and Statistical Manual of Mental Disorders (DSM-V) criteria for BPD.
- Study participants would answer surveys honestly and completely.
- The use of SNaPSS would provide accurate data concerning the social networks of individuals who suffer from BPD.

Scope and Delimitations

This quantitative study was limited to participants aged 18 and above. Participants had to meet the criteria of using social media platforms at least once per day and be involved in either a local intimate relationship or other interpersonal relationship.

Participants in this study were obtained through random selection using online platforms. All participants completed the FFBI-SF, ISEL-12, SMUQ, Social Isolation Scale, and the sociometric questionnaire SNaPSS. The theory most related to this area of research is the social baseline model.

The FFBI-SF was used to identify individuals who met the minimum criteria for BPD. The SMUQ was used to quantify the amount of social media usage by each participant. The ISEL-12 and sociometric questionnaire SNaPSS was used to determine how connected participants who meet BPD criteria feel to those within their face-to-face social networks. Last, the Social Isolation Scale was used to measure participants' feelings of isolation.

Limitations

There were several limitations when attempting to collect data from participants who meet the criteria for BPD. A barrier to collecting primary data was recruiting a participant pool with a significant number of individuals who suffer from BPD. Additional barriers in data collection included verifying the validity of self-reported data and ensuring participants completed assessment tools in their totality.

Significance

Findings from this research will provide insight into the effect of social media on social isolation in individuals with BPD, which can assist in improving treatment methods for this population. This project is unique because it addressed understudied relationships between individuals with BPD and the online community. Interpersonal impairment is a paramount feature in BPD. Consequently, an understanding of how social

media affects those with the disorder is necessary. Research concurs future studies should aim to assess the effects of social media on those with a mental disorder (Brusilovskiy et al., 2016; Csepeli & Nagyfi, 2014). This research has the potential to assist psychological practitioners with more effective treatment planning for individuals with BPD.

Summary

The purpose of this quantitative correlational study was to understand the relationship between social media usage and physical isolation in individuals with BPD. In Chapter 1, a background of research on mental disorders and social media usage was provided. A gap in the literature indicating the need to conduct more studies on the impact of social media on individuals with BPD was demonstrated through the research of Brusilovskiy et al. (2016) and Csepeli and Nagyfi (2014). As the theoretical foundation, attachment theory and the social baseline model were discussed. Additionally, the significance of determining whether social media is affecting the treatment outcomes of individuals with BPD was identified through the research of Snethen and Zook (2016).

In Chapter 2, a thorough review of the most recent and relevant literature on personality disorders is provided. This chapter will clarify the gap in the literature concerning BPD and social media usage as identified by the researchers Snethen and Zook (2016). Also, conflicts found concerning social media usage are discussed. Chapter 2 concludes with restating the significance of this study.

Chapter 2: Literature Review

Introduction

Individuals who suffer from BPD experience extreme difficulty in achieving healthy social relationships (Liebke et al., 2017). Existing research indicates those with the disorder maintain fewer relationships due to perceived abandonment and fluctuations between devaluation and idealization in interpersonal relationships (Lazarus & Cheavens, 2017; Liebke et al., 2017). Through an analysis of literature on BPD and the characteristic of social isolation, I found the effects of social media usage on physical social isolation in individuals with the disorder has been understudied. To address this issue, I argued that those with BPD will experience an increase in physical social isolation as social media usage increases.

Current literature on BPD focuses on how features such as rejection sensitivity and feelings of abandonment effect one's social network. Lazarus et al. (2016) stated most research on BPD examines the effect of its characteristics on social network dynamics. In this literature review, I will discuss behaviors and attitudes associated with BPD. Furthermore, the strain induced by BPD associated characteristics on interpersonal relationships will be discussed. The literature review will cover four main themes: the interpersonal interactions of individuals who suffer from BPD, perceived loneliness, social media and mental disorder, and social media and social isolation. The focus of this chapter is to better understand the significance of studying the effects of social media on individuals with BPD. I begin this chapter by discussing the search methodology used to furnish information for review. Next, the theoretical foundation for the study is

explained. Chapter 2 is concluded with a review of the most current literature on mental health and social media usage.

Literature Search Strategy

The research used in this literature review focused on the social behavior of individuals with BPD and how social media usage can affect mental disorder. Internet databases such as PsycINFO, PsycARTICLES, and SocINDEX were accessed through Walden University's library to find peer-reviewed articles for this review. Additionally, the Google Scholar search engine was used as a resource finder. The timeframe between 2013 and 2020 was used to identify the most current research on BPD. Seminal research from as early as 1992 was used to substantiate the theoretical foundation for this review. The key terms used to find relevant research were *borderline personality disorder*, *social media*, *personality disorder*, *social isolation*, *loneliness*, *attachment*, *interpersonal conflict*, *social interaction*, and *social network*. I was unable to locate literature directly referencing the use of social media by individuals with BPD. Consequently, literature concerning mental disorder and social media usage are referenced in this review.

Theoretical Foundation

Object Relations Theory

Object relations theory is based upon the hypothesis that humans are social beings needing interpersonal interaction for development and survival (Buchele & Rutan, 2017). The drive for humans to relate to others in an intimate way is demonstrated through the popularity of social media, which allows humans to connect to family and friends who live hundreds of miles away. Additionally, Buckele and Rutan (2017) stated current

neurological research supports the human need for relationship. Consequently, one's psychological and mental health is positively or negatively affected by their social experiences.

Kernberg contributed to the development of object relations theory by categorizing personality pathology through understanding personality structure (Siefert & Porcerelli, 2015). Under his categorization, individuals either fell within the normal, psychotic, or borderline personality organizations. In particular, those who demonstrate borderline personality organization experience themselves and others in a malevolent manner, causing unstable perceptions of the world around them (Siefert & Porcerelli, 2015). This leads to maladaptive defense mechanisms which severely impair interpersonal relations.

Object relations theorists postulated pathological categorizations, such as borderline personality organization, stem from hinderances in proper identity development during childhood. Huprich et al. (2017) referenced childhood abuse and abandonment as common catalysts in disorganized identity development, leading to personality disorder. Furthermore, acts of abuse and abandonment are accompanied by the failure to form proper attachments with caregivers in childhood. Research found individuals with BPD have unresolved and fearful attachment patterns (Huprich et. al., 2017). Resultantly, individuals who experience borderline personality organization experienced insufficient attachments with caregivers, which caused the mental organization of consistent malevolent experiences.

Attachment Theory

Bowlby explained attachment as a need to be in proximity to someone who is perceived to have the ability to protect and educate (Biringen, 1994). This attachment is biological in nature, meaning each human is born with the desire to be close to another in which they feel they can benefit. Biringen (1994) stated affectional attachments begin in infancy and are made based on innate needs for protection and survival. As the needs of an infant are met, an affectional bond is created and the biological need for human interaction is further cultivated by environmental stimuli.

Attachment theory, initially deriving from the work of Bowlby, proposes experiences with attachment figures in childhood are the basis for emotional disturbance (Bretherton, 1992). These experiences include emotional deprivation and lack of intimacy with a caretaker in early childhood, which is believed to facilitate insecure attachments. Coan (2008) stated attachment relationships set the premise for emotional regulation. When attachments are insecure or a child is unable to depend on an attachment figure for consistent and appropriate responses of emotional support and protection, maladaptive emotional responses are developed. BPD can be categorized as a disorder resulting from extreme attachment disturbance (Beeney et al., 2018).

The Social Baseline Model

The social baseline model is a theory explaining attachment through the lens of metabolic functioning. This neuroscientific model states that humans will focus on interactions which cause them to exude the least number of resources towards emotional and social relationships yet receive the most resources from them (Coan, 2008).

Neurologically, attachments cause dopamine production in the brain providing people with the feeling of reward. When these attachments are close in proximity, people use less resources to obtain and maintain them. Hughes et al. (2012) stated relational attachments serve the purpose of load sharing, which is the distribution of resources in acquisition of needs. Resultantly, people seek to receive rewards with the least amount of energy expenditure.

Coan (2008) stated the brain is highly responsive to conditioning through dopamine production, which plays a significant role in attachment development. Variables such as food and social contact are positive reinforcers in conditioning while social deprivation is a negative reinforcer; however, in early brain development the ability does not exist to categorize a variable as negative. Instead, all variables and interactions are labeled as familiar (Coan, 2008). This explains how individuals who experienced neglect and abuse during critical periods of early brain development perceive the aforementioned behavior as familiar in adulthood. The insecure attachments developed in childhood set the premise for social interactions in adulthood on a neurological level (Coan, 2008).

Hughes et al. (2012) stated the social baseline model provides an adequate framework for understanding BPD because it explains biologically why individuals enter social relationships and what neural mechanisms contribute to relationship dysfunction. When insecure attachments form the basis for interpersonal behavior in adulthood, instability in relationships results. The neural systems of an individual become

overwhelmed due to social resource depletion. Consequently, affect regulation and other social skill usage is disrupted (Hughes et al., 2012).

Culmination of Foundational Theories

In summary, object relations theory proposes humans are social beings who need interpersonal interaction (Siefert & Porcerelli, 2015). Based upon its tenets, human interaction is needed in childhood for an individual to develop a health identity (Siefert & Porcerelli, 2015). Attachment theory relates to object relations theory as both theories explain early childhood attachments to caregivers as influential in emotional development or dysfunction (Biringen, 1994). Both theories emphasize how childhood social interactions impact the lives of individuals within the domains of psychological and emotional functioning. Last, the social baseline model explains attachment through a neurological lens by expounding on the function of hormones in human attachment. All three theories form the theoretical foundation for the study.

Literature Review Related to Key Variables and/or Concepts

Interpersonal Functioning

Lazarus et al. (2016) studied the impact of rejection sensitivity on the social networks of individuals with BPD characteristics. They theorized BPD characteristics would not only negatively impact social network quality but a core feature of the disorder, rejection sensitivity, would play a vital role in the disruption of the social network. The authors defined rejection sensitivity as an expectancy to receive rejection (Lazarus et al., 2016). Through their research, Lazarus et al. found rejection sensitivity in individuals who suffer from BPD impacted the number of interpersonal relationships.

The greater the rejection sensitivity, the less interpersonal relationships and the greater the conflict in the existent relationships. Researchers can postulate that the greater the rejection sensitivity, the more likely an individual with BPD will experience social isolation.

Lazarus and Cheavens (2017) conducted a study using SNA to examine deficits in the social network quality of those who suffer from BPD. They hypothesized individuals with BPD would have lower quality relationships with significant figures. The authors found that while women with BPD had the same size friendship network as those individuals without BPD, the women with BPD had fewer interactions with significant figures. Their research suggested that those with BPD may not rely as heavily on significant figures for social support as those without BPD. Currently, research on social networks within the population of those with BPD is rare (Lazarus & Cheavens, 2017). The authors advised more research on the social networks of individuals who suffer from BPD should be conducted, including impacting factors such as social isolation and perceived social isolation.

Beeney et al. (2018) studied the relationship characteristics of individuals with BPD using SNA, which they proposed was the best method for examining interpersonal dysfunction. The authors hypothesized BPD symptoms would be associated with more fragile interpersonal attachments, specifically in those relationships which are considered most significant and closer in proximity such as intimate partners. In contrast, Beeney et al. (2018) expected to yield results demonstrating individuals who suffer from BPD report more significant relationships with individuals who are less central in proximity

and social role. The authors found few BPD symptoms were associated with stronger relationships between significant figures and more face-to-face contact. In addition, Beeney et al. found increased BPD symptomatology was associated with weaker attachments to significant figures and less face-to-face contact.

Beeney et al.'s (2018) results suggested individuals with BPD are closer to individuals who are outliers to their own social network. Consequently, individuals with BPD suffer from interpersonal dysfunction causing them to feel less connected to significant figures. This insecure attachment yields defensiveness and less face-to-face time spent with others. The authors stated a limitation of their study was the use of ego-based SNA which limits one's ability to evaluate how changes to the social network impact individuals with BPD (Beeney et al., 2018). It was suggested further research be conducted to examine how individual differences in the lives of those with BPD impact their social networks.

Social Isolation

Primack et al. (2017) defined social isolation as a lacking in social belonging, social engagement, and fulfilling interpersonal relationships. Individuals who suffer from BPD experience difficulties in maintaining relationships due to distortions in perception, which increases social isolation. Characteristic of the mental disorder, individuals with BPD fluctuate between feelings of devaluation and idealization with those who reside within their social circles (Lazarus & Cheavens, 2017). This change in perception concerning others causes periods of closeness followed by those of distance, which can

be confusing to others. As a result, they endure a higher number of broken intimate relationships and friendships (Lazarus & Cheavens, 2017; Liebke et al., 2017).

In addition to experiencing extreme fluctuations in valuing relationships, those who suffer from BPD experience less satisfaction with relationships. Liebke et al. (2017) stated individuals with BPD have deficits in social skills, leading to less successful relationships. Furthermore, Lazarus and Cheavens (2017) found women with BPD experience more dissatisfaction in relationships than those without BPD. Deficiencies in social skills affect one's ability to communicate effectively, which is pertinent in maintaining a fulfilling relationship. Consequently, dissatisfaction with relationships can lead to feelings of isolation and loneliness.

Pucker et al. (2019) demonstrated that some personality traits increase social isolation in individuals who suffer from BPD. They conducted a longitudinal study over a 20-year span to measure the prevalence of social isolation and its mediating factors. The researchers found that predictors of social isolation in individuals who suffer from BPD included lower extraversion and agreeableness. According to the Five-Factor Model of Personality, personality traits fall under five distinct domains: agreeableness, neuroticism, extroversion, conscientiousness, and openness (Costa & McCrae, 1995). Agreeableness is characterized by traits such as altruism and compliance. Neuroticism is characterized by a tendency to experience negative affect (Barańczuk, 2019). Extroversion is a tendency to enjoy and need social interactions. Conscientiousness individuals are achievement oriented. Last, openness is a greater vulnerability to feeling and emotions (Barańczuk, 2019).

Research shows social isolation is correlated with negative health outcomes including poor sleep, poor cognitive functioning, depression, cardiovascular disease, and an increase in cortisol production (Whaite et al., 2018). Individuals who suffer from BPD tend to experience a vicious cycle of perpetuating negative personality characteristics within interpersonal relationships that yield social isolation while becoming the benefactor of negative symptoms because of social isolation. Tucker et al. (2016) stated individuals who suffer from BPD exhibit high levels of neuroticism trait including anxiety, hostility, depression, impulsivity, self-consciousness, and vulnerability to stress. These characteristics are maladaptive not only causing interpersonal relationship distress but individual psychological distress; therefore, increasing the likelihood of social isolation. As a result, individuals who suffer from BPD experience increased suicide risk.

Tucker et al. (2016) found maladaptive personality traits associated with BPD increase the risk of suicidal ideation. In comparison, Barańczuk (2019) found lower levels of neuroticism are linked to greater perceived social support which yields healthier physical and mental well-being. It can be concluded that lower levels of the neuroticism trait can minimize suicidal ideation. This poses a challenge in the treatment of individuals suffering from BPD as neuroticism, social isolation, and negative health outcomes including suicidal ideation are correlated.

Face-to-Face Relational Interaction Social Media Usage

Brusilovskiy et al. (2016) stated that few researchers have studied social media and its impact on mental disorder. Resultantly, Brusilovskiy et al. conducted a study to determine whether social media usage is correlated to less face-to-face interaction and

community involvement. After studying the online activity and face-to-face involvement of participants who suffer from schizophrenia, bipolar disorder, schizoaffective disorder, and depression, they found greater social media use was associated with more face-to-face interaction and community involvement in their sample. Additionally, participants reported lower levels of loneliness which positively supported psychological well-being.

The authors' findings suggest social media can positively impact those who suffer from mental disorder; however, they concluded more research be conducted based on the limitations of their study (Brusilovskiy et al., 2016). First, the findings from their sample are not generalizable. Second, they conducted a correlational study. While Brusilovskiy et al. (2016) demonstrated a positive correlation between social media usage, face-to-face interaction, and civic involvement, the direction of the association is unknown. Consequently, it is not known whether more face-to-face interaction and civic involvement is causing more social media usage or vice versa. Last, the measure used to quantify social media usage have not been examined for validity (Brusilovskiy et al, 2016).

Perceived Loneliness

Liebke et al. (2017) conducted a study to examine the relationship between perceived loneliness and social isolation in individuals with BPD. The authors hypothesized higher levels of perceived loneliness would be linked to greater likelihood of social isolation and deficits in interpersonal skills. When compared to a control group, Liebke et al. (2017) found individuals with BPD experienced higher levels of perceived loneliness and social isolation than those without. In addition, their research indicated

that social network size was related to feelings of perceived loneliness in both individuals with and without BPD. Liebke et al. (2017) concluded individuals with BPD not only suffer from perceived loneliness but experience being alone more than those without. Factors affecting this experience include deficits in interpersonal skills; however, the authors indicate more research should be conducted to isolate other contributing factors.

Loneliness is a core feature experienced in BPD, which leads to social isolation. Liebke et al. (2017) found individuals with BPD had higher perceived loneliness and smaller social network size than those who do not suffer from the disorder. The loneliness experienced by those with BPD is related to the devaluation of relationships. Emotional connection and intimacy are significant contributors to healthy interpersonal relationships (Csepeli & Nagyfi, 2014). The lack of emotional consistency experienced in BPD affects not only one's ability to maintain relationships but the ability to connect to others. As a result, loneliness is a common feature in BPD.

Additionally, individuals with BPD experience increased aloneness compared to those without the disorder. Liebke et al. (2017) concluded not only do individuals with BPD experience high levels of aloneness, but they experience an inability to properly cope with aloneness. As a result, individuals with the disorder feel empty. They will seek to fill the void associated with chronic aloneness through easily assessable mediums such as social media.

Social Media Usage and Personality Disorders

Stockdale, Coyne, Nelson, and Erickson (2015) examined the impact of BPD features on aggression perpetrated using social media. They authors hypothesized BPD

features of unstable self-image and fear of abandonment would lead adolescents with the disorder to participate in cyberbullying. Also, they anticipated cyberbullying would be mediated by the level of jealousy experienced in person relationships by individuals with BPD. Stockdale et al. (2015) found higher levels of BPD features were positively correlated with increased cyberbullying. In addition, they found the level of jealousy experienced by individuals with BPD impacted the amount of cyberbullying participation.

Jealousy experienced by individuals who suffer from BPD is exacerbated by an individual's fear of abandonment (Stockdale et al., 2015). A main feature of BPD is a negative affective state which causes individuals to expect and perceive abandonment without evidence of its existence. We can conclude perceived abandonment can lead to lashing out by those with BPD. Sindermann et al. (2020) found that individuals who are likely to criticize and argue with others are more likely to excessively use social media to do so. When social media is a main form of interpersonal interaction, this aggressiveness is demonstrated through negative comments left on various internet platforms. Because there is limited research on BPD and social media usage, Stockdale et al. (2015) suggested their study be replicated to provide additional data on the relationship between BPD characteristics and aggressive online behavior.

Richmond et al. (2020) researched the impact of online rejection using social media platforms on individuals who exhibit BPD characteristics. Individuals who suffer from BPD are sensitive to rejection, often perceiving social interactions as negative. The researchers hypothesized that online rejection would increase negative affect in

individuals with BPD characteristics. In addition, they hypothesized that these individuals would experience a greater feeling of threat to social needs. Richmond et al. (2020) found that negative affect and threat to social needs was increased in individuals with BPD characteristics who were subjected to online rejection. The researchers suggested that more studies evaluate the impact of online rejection within participant groups of individuals diagnosed with BPD.

Individuals who suffer from BPD experience negative emotional states related to perceived abandonment and rejection. Because online social media interaction is void of non-verbal communication, this can heighten miscommunication. Resultantly, we can conclude that individuals who suffer from BPD may experience interactions that are perceived as abandonment and rejection more often using social media platforms. To this end, it can be hypothesized that social media usage among individuals with BPD may increase feelings of rejection which in turn will have a negative impact on their emotional and psychological well-being.

Akça et al. (2020) studied the relationship between personality disorders and social media usage. Their research sought to determine whether there was a correlation between social media overutilization and DSM-V personality disorder symptomatology. While the current DSM-V does not include a diagnosis relative to social media usage, Akça et al. (2020) argued that overuse of social media platforms mimics the model of addiction including use to reduce negative mood, use leading to the negation of responsibilities, and difficulties reducing usage. The authors found that avoidant,

borderline, dependent, antisocial, paranoid, narcissistic, and histrionic personality features were associated with excessive use of social media platforms.

Research demonstrates that individuals who suffer from personality disorders are more likely to exhibit addictive qualities (Akça et al., 2020). Those who meet criteria for personality disorders suffer from dysfunctional and counterproductive interpersonal behaviors. If these individuals are experiencing distress, social media platforms may be used to reduce negative affect. Some studies report individuals experience positive emotional and psychological outcomes from social media usage (Ceglarek & Ward, 2016; Snethen & Zook; 2016). Consequently, individuals who suffer from personality disorders can become addicted to social media platforms if its usage brings about positive emotions.

Social Media's Impact on Mental Disorder

Csepeli and Nagyfi (2014) studied the online presence of individuals with mental illness. The researchers questioned whether inferences can be made about the mental state of individuals based upon their online presence. Based on the principle of congruence, the authors hypothesized individuals with similar mental health profiles would find each other on social media (Csepeli & Nagyfi, 2014). The researchers found their hypothesis to be accurate; individuals with similar mental health problems unwarily found and befriended each other on social media platforms. Csepeli and Nagyfi (2014) suggested future research in this area be directed towards monitoring the social media presence of those with diagnosed mental disorder to create new interventions using technology.

Patterns of social media usage can be used to identify and predict those who will experience a mental disorder. Csepeli and Nagyfi (2014) found social media activity was correlated to the user's mental state, distinguishing between those with a mental disorder and those without a mental disorder. Also, the researchers found one's activity level on social media can correspond to mental disorder (Csepeli & Nagyfi, 2014). These findings can be applied to individuals with BPD because those who suffer from the disorder are easily bored and highly reactive, increasing the probability they would participate in an online activity.

Ceglarek and Ward's (2016) research examined the relationship between mental health outcomes and social media usage in youth sexual minority groups. They hypothesized members of sexual minority groups would positively benefit from social media usage when its use is to develop sexual identity. The researchers found sexual minority youth who used social media to develop their sexual identity experience positive mental health outcomes due to increased support found on social media platforms. Although Ceglarek and Ward (2016) addressed the gap in research concerning the association between mental health and social media usage in youth sexual minorities, the authors recommended continued research on this topic.

Snethen and Zook (2016) presented a study on community integration and severe mental disorder. The researchers sought to provide clinicians with strategies which incorporate the use of social media in integrating young adults with severe mental disorder into the community. According to the researchers, severe mental disorder includes disorder such as schizophrenia. Snethen and Zook (2016) found social media

can be used as an effective tool in improving community integration in the areas of engagement, involvement, and independence for those with severe mental disorder. Furthermore, the researchers found social media assisted individuals with building social capital, which can positively impact mental health. Snethen and Zook (2016) suggested additional research examine the impact of social media interventions on individuals with severe mental disorder.

Social Media Usage and Isolation

Feelings of social isolation can lead individuals to engage in social media usage. Primack et al. (2017) stated that social media platforms can be used to re-connect individuals socially who may otherwise experience loneliness within their physical environments. Social media provides an opportunity for individuals to engage socially when they otherwise might not. This would seem to yield the conclusion that social media usage can counteract feelings of social isolation. On the contrary, social media usage has shown to yield depression in some individuals (Primack et al., 2017). Furthermore, diagnostic symptomatology associated with depression includes feelings of emptiness and loss of pleasure making social isolation a byproduct.

Primack et al. (2017) stated repeated exposure to social media profiles giving the appearance of a perceived happier and better life can cause individuals to make comparisons. These comparisons can cause feelings of inadequacy resulting in depression. Primack et al. (2017) conducted research to evaluate the association between social isolation and social media usage. They found that a correlation between social media usage and social isolation. Feelings of social isolation increased linearly as social

media usage increased (Primack et al., 2017). This finding is contrary to research that identifies social media usage as a viable solution to deficits in social resources.

Whaite et al. (2018) followed the research of Primack et al. (2017) by examining the relationship between personality traits, social media usage, and social isolation. Because there have been contradictory findings regarding the impact of social media usage on feelings of social isolation, one could conclude that personality traits are a contributor to this difference. Whaite et al. (2018) found neuroticism to be associated with increased feelings of social isolation despite using social media as a method of increasing social interaction. Individuals who suffer from BPD experience high levels of neuroticism. Neuroticism is a personality trait associated with negative affect, self-consciousness, and anxious behaviors (Whaite et al., 2018). The researchers suggested more research be conducted to examine the conflicting conclusions among researchers regarding the psychological impact of social media usage.

Social media usage allows individuals to engage in superficial forms of relationship. Csepeli and Nagyfi (2014) stated social media perpetuates less genuine emotions, including empathy. Also, Lazarus and Cheavens (2017) suggested those with BPD do not rely on social support from those most central in their social networks as others do. We can conclude individuals who suffer from BPD would be more likely to seek social support from those online than those within physical proximity. Resultantly, social media usage could lead to social isolation in those with BPD due to their reliance on social support from those who are further away in distance and because of experiencing less genuine relationships through that social medium.

Summary and Conclusions

As addressed in the research, individuals with BPD suffer marked impairment within their social networks (Lazarus & Cheavens, 2017). This social impairment is the central focus of treatment options within a clinical setting. As social media presence grows within the population, there is a need to study the social interactions of individuals with BPD within the online community to make treatment more effective. While there has been research on mental disorders and the impact of social media, there is minimal research on social media's impact specifically on individuals with BPD. Consequently, the effects of social media on individuals with BPD' social network should be researched.

Chapter 3 describes the research methodology and justification for utilizing it within this study. This chapter restates the study variables, research questions, and describes how the design chosen is consistent with prior research concerning personality disorders. In addition, the target population is identified, sampling procedures are justified, recruitment procedures are explained, and instruments used to collect data are listed. The chapter concludes with a description of threats to validity and ethical procedures used to protect the well-being of all participants.

Chapter 3: Research Method

Introduction

The purpose of this quantitative correlational study was to determine whether there is a relationship between social media usage, social media network size, and physical isolation in individuals with BPD. First, this chapter begins by explaining the research design and reasoning for its choice. Next, the methodology used will be described which includes the population choice, sampling procedures, recruitment, and types of psychometric instruments used. The chapter will conclude with mentioning possible threats to validity and ethical procedures implemented.

Research Design and Rationale

According to Creswell (2014), quantitative research validates or explains a phenomenon. A quantitative nonexperimental correlational research design was chosen because it allows me to examine relationships between multiple variables. In my study, the independent variables social media usage and social media network size were hypothesized to have a relationship with the dependent variable physical isolation while controlling the effect of the independent variable physical network density. Blanca et al. (2018) stated correlational methods in psychological research are prevalent. These methods allow researchers to make predictions concerning the causation of varied traits and behaviors. Additionally, correlational methods measure the magnitude of a relationship and an independent variable's unique effect on the dependent variable (Cohen et al., 2013). A correlational design allowed me to measure the total effect of

social media usage on physical isolation in individuals who suffer from BPD as well as reveal additional relationship characteristics.

The statistical test commonly associated with analyzing correlational relationships is multiple regression analysis. Cohen et al. (2013) stated the use of multiple regression allows behavioral science researchers to uncover complex relationships between variables with high fidelity. Multiple regression analysis is used when multiple independent variables are predicted to have a relationship with a dependent variable. Because little is currently known about the relationship between social media use and BPD, the use of multiple regression analysis within the research design was of high value to discovering varying relationships for further study.

Methodology

Population

The target population for this study was individuals over the age of 18 who met diagnostic criteria for BPD as measured by the FFBI-SF. DeShong et al. (2016) suggested the use of the FFBI-SF in identifying BPD due to its ability to detect characteristics in individuals related to a BPD diagnosis using a dimensional approach. To increase generality, my target population size was 36. Only 2%-3% of the general population suffer from BPD, with many of them in inpatient facilities suffering from co-occurring disorders (Gunderson, 2009). As a result, acquiring a sample size of this magnitude may have been difficult. To address this difficulty, assistance with gaining participants was solicited from online BPD support groups.

Sampling and Sampling Procedures

The type of sampling strategy used for this study was probability sampling. Howitt and Cramer (2017) stated probability sampling is the most effective method of ensuring one's sample is representative of their identified population. Potential participants were given a three-question eligibility screening prior to determining if they meet diagnostic criteria for BPD. The first question verified each participant met the minimal age of 18. The second question asked if potential participants had a social media account. The third question inquired concerning the size of their social media network. Once potential participants answered eligibility questions, they were administered the FFBI-SF (DeShong et al., 2016) to determine whether they meet diagnostic criteria for the disorder.

To calculate the sample size for this study, I used G*Power software version 3.1.9.3 (Faul et al., 2009). To obtain a sample that would yield significant results, I specified an alpha of 0.05 and a medium effect size. Cohen et al. (2013) suggested a medium to large effect size has a good chance of being statistically significant. A power of 0.80 was used to calculate the sample size of 36 participants. According to Cohen et al., a power of 0.80 increases the probability of yielding significant findings without producing a high Type I error rate.

Procedures for Recruitment, Participation, and Data Collection

Participants were recruited on a voluntary basis using the online platforms Facebook, Twitter, and Instagram. After potential participants-initiated presurvey screening links, an explanation of the study appeared including the consent form. When

consent was given by the participant, they were routed to a page to collect demographic information including gender, age, social media usage, and social media network size to verify eligibility.

Once eligibility criteria were met, the participants were sent to the survey, which was comprised of several assessments within the Qualtrics online platform. The first page of the survey detailed a description of the study, confidentiality, and participants rights. Participants were then asked to consent to the study. During the consent process, participants were provided with mental health resources. Last, my email address was provided to all participants if they had further questions concerning the study.

Instrumentation and Operationalization of Constructs

This study examined three independent variables: social media usage, social media network size, and physical social network density. Two dependent variables were examined: perceived face-to-face relationship closeness and physical isolation. Social media network size refers to how many people an individual interacts with using their personal social media account. Physical social network density refers to the level of physical social capital an individual possesses. Social media usage refers to how often an individual uses an internet-based social platform for the purpose of social interaction. Physical isolation refers to time spent away from human interaction. Lastly, perceived face-to-face relationship closeness refers to how an individual perceives their relationships with those whom they have face-to-face interactions.

To measure the relationship between my variables within a population suffering from BPD characteristics, instruments that measure BPD traits, social media use, social

isolation, social network size, and interpersonal support were used. I obtained permission from Walden's PsycTESTS database to use the ISEL-12, Social Isolation Scale, and the SMUQ. Permission was obtained from the authors to use the FFBI-SF and the SNaPSS..

The FFBI-SF (DeShong et al.,2016) was used to screen for individuals who met diagnostic criteria for BPD. The ISEL-12 (Cohen et al., 1985) was used to measure the dependent variable perceived face-to-face relationship closeness. The SNaPSS (Lei et al., 2019) was used to measure the independent variable physical social network density. SMUQ (Xanidis & Brignell, 2016) was used to measure the independent variable social media usage. The Social Isolation Scale (Cohen et al., 2013) was used to measure the dependent variable physical isolation.

Five-Factor Borderline Inventory Short Form

The FFBI-SF screened for individuals who meet BPD diagnostics criteria. DeShong et al. (2016) developed the FFBI-SF to measure BPD diagnostic criteria based on a dimensional approach in detecting personality disorder. This 48-item questionnaire is a short version of its 120-item predecessor. The creators of the FFBI-SF sampled 1,896 participants from universities and substance abuse facilities to validate the short form's ability to detect BPD similarly to several well-known BPD assessments. The FFBI-SF includes the following subscales: anxious uncertainty, dysregulated anger, despondence, self-disturbance, behavioral dysregulation, affective dysregulation, fragility, dissociative tendencies, distrust, manipulateness, oppositional, and rashness. Questions on this measure include the following: "I can be so different with different people that it's like I'm not the same person." Respondents' answers range from disagree strongly to agree

strongly. The internal consistency of the FFBI-SF using Cronbach's alpha was between .71 and .86. Convergent correlations between the full and short versions were .91 on average.

Interpersonal Support Evaluation List-12

The ISEL-12 measured perceived face-to-face relationship closeness. Cohen et al. (1985) developed the ISEL-12 to evaluate an individual's perception of available social support. This 12-item questionnaire is an abbreviated version of its 40-item predecessor. The Interpersonal Support Evaluation List (ISEL; Cohen & Hoberman, 1983) was sampled on a population of Hispanic/Latino adults of Dominican, Central American, Cuban, Mexican, Puerto Rican, and South American ancestry. This measure includes three subscales: appraisal, belonging, and tangible. Questions on the ISEL-12 include the following: "I feel that there is no one I can share my most private worries and fears with" and "If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me." All items are rated on a 4-point Likert scale ranging from 0 (definitely false) to 3 (definitely true) with total scores ranging between 0 and 36. The internal consistency of the ISEL-12 using Cronbach's alpha was between .80 and .86 for all ancestries. Results from Cohen et al.'s (1985) indicated total scores on the ISEL-12 were related to social network integration and engagement, perceived stress, and negative affect.

Social Media Use Questionnaire

The SMUQ was used to measure respondents' social media usage. The SMUQ was developed by Xanidis and Brignell (2016) to examine the association between social

media usage and cognitive functioning. This 9-item questionnaire was developed in a study using 324 adults from or residing at the time in the United Kingdom. Items are rated on a 5-point Likert scale ranging from 0 (never) to 4 (always). Questions used on the SMUQ include the following: “I use social network sites when I am in the company of friends.” The internal consistency of this questionnaire using Cronbach’s alpha was .87.

Social Network and Perceived Social Support Tool

The SNaPSS was used to measure the independent variable physical social network density. Developed by Lei (2019), the purpose of the SNaPSS was to measure both social network structure and the quality of perceived social support amongst college students between the ages of 17 to 19 who suffer from autism spectrum disorder (ASD). The SNaPSS is an online sociomap developed using Qualtrics. First, participants are asked to list up to 20 individuals who are important contacts they have communicated with in the past 3 months. Then, they are asked to identify their primary method of communication with the listed individuals. Last, participants are asked a range of questions related to the type of support received from each listed individual. Questions on the SNaPSS include the following: “Over the past three months, how frequently have you communicated with each of the following people?” Response categories are rated on a 5-point Likert scales which differ based on the question asked. For example, the question mentioned previously is rated using a 5-point scale ranging from 0 (one/twice in total) to 4 (six or more times per week). Lei (2019) found good construct validity between quality and quantity of support.

Social Isolation Scale

The Social Isolation Scale was developed to examine the effects of internet use on social isolation and loneliness among individuals within residential living communities. Cotton et al. (2013) conducted a study with a sample of 205 older adults in Alabama, checking for causal relationships using regression analysis. The Social Isolation Scale is a 3-item scale rated on a 3-point Likert scale. Questions on the measure include the following: “How often do you feel that you lack companionship?” with responses ranging from 1 (hardly ever) to 3 (often). The reliability of this measure using Cronbach’s alpha was .69.

Data Analysis Plan

Statistical Package for Social Sciences (SPSS) version 24.0 (Arbuckle, 2016) was utilized to perform MRC analysis on the data collected from participants. As a preliminary step, Gephi 0.9.2 (Bastian et al., 2009) was utilized to obtain the social network density which is a quantifiable measure of the independent variable physical social network density. Prior to analysis, data was checked for the following coding errors: (a) valid range checks, (b) filter checks, and (c) logical checks. Utilizing the checks to clean data, all data was screened for invalid and missing codes, omissions, and illogical responses. To ensure internal consistency, all incomplete surveys were discarded.

The research questions and hypotheses were as follows:

1. RQ1-Quantitative: What is the relationship between social media usage and social media network size in predicting physical isolation in individuals with BPD?

H₀: In this sample, while controlling for physical social network density, social media network size and social media usage will not significantly impact physical, social isolation in individuals with BPD.

H_a: In this sample, while controlling for physical social network density, social media network size and social media usage will significantly impact physical, social isolation in individuals with BPD.

2. RQ2-Quantitative: What is the relationship between social media usage and social network size in predicting perceived face-to-face relationship closeness in individuals with BPD?

H₀: In this sample, while controlling for physical social network density, social media network size and social media usage will not significantly impact perceived face-to-face relationship closeness in individuals with BPD.

H_a: In this sample, while controlling for physical social network density, social media network size and social media usage will significantly impact perceived face-to-face relationship closeness in individuals with BPD.

I used multiple regression/ correlation (MRC) analysis to analyze data for all research questions. The primary benefits of using MRC to analyze the data for my research questions are the following: (a) MRC allowed me to measure the size of the effect of by independent variables on my dependent variable and (b) MRC assisted in ruling out some

explanations of observed relationships between independent and dependent variables (Cohen et al., 2013). Correlations between the independent variables and dependent variable were interpreted using a .95 confidence interval (CI). To determine whether the associations between the independent and dependent variables were significant, the *p*-value will be set to .05.

Threats to Validity

Creswell (2009) stated researchers must minimize threats to validity which threaten a researcher's ability to conclude their experiment outcome was impacted by the intervention and not some outside factor. There are two types of threats to validity: internal and external validity threats. Internal threats can arise in research procedures and in participant's experiences. External threats can arise when researchers make incorrect inferences about sample data. An example of an external threat to validity is generalizing beyond one's sample population (Creswell, 2009).

Internal validity threats may present themselves in the areas of history and selection within this study. Creswell (2009) describes an internal validity threat in history as events occurring during an experiment which alters or influences the outcome. An internal validity threat in selection occurs when individuals with characteristics that predispose them to certain outcomes are selected. During this study, a pandemic occurred which caused individuals to participate in social distancing. Consequently, this impacted how often individuals used technology. Actions taken to mitigate the influence of these internal threats to validity included verifying all participants experienced the same event and are selected at random (Creswell, 2009).

External threats to validity may present themselves due to the timing of the experiment. The pandemic may cause the participants to use social media more than usual due to social distancing. According to Creswell (2009), this threat to external validity can be resolved by replicating the study later and comparing the results. While this threat cannot be resolved prior to conducting this study, it is mentioned in Chapter 5's recommendations for further study. Bornstein (2003) stated individuals conducting personality disorder research also face construct validity issues including inadequate criterion validity. This threat to construct validity was minimized by using a published instrument that had been validated with past research to detect BPD characteristics.

Ethical Considerations

Permission to conduct my study was obtained from Walden University's Ethics Committee. After IRB approval was obtained with approval number 04-12-21-0612426, all Walden University policies regarding experimentation with human subjects were followed strictly. Participants were provided with electronic consent forms describing the voluntary nature of the experiment and their right to discontinue at any time. Additionally, participants were made aware of confidentiality and anonymity. Confidentiality and study information was reiterated at the beginning of the online questionnaire. Participants for this study were recruited using Facebook, Twitter, and Instagram.

All primary data was obtained from a survey hosted on the Qualtrics software platform. Qualtrics meets the Health Insurance Portability and Accountability Act of 1996 regulations concerning health information confidentiality. All surveys were

completed anonymously, and participants were selected at random. As a result, there was no prior relationship between me and the participants. This fortified participant confidentiality and reduced the impact of an electronic breach.

Data acquired from this study will be kept on a password protected hard drive for no more than five years. The password to the hard drive will not be shared and will remain only in the knowledge of the researcher. In five years, all acquired data will be destroyed during a destructive wipe of the hard drive.

Summary

This chapter discussed the use of a quantitative non-experimental correlational research design to determine whether there is a relationship between social media usage and physical isolation in individuals with BPD. This methodology allowed me to examine the relationship between multiple variables. Threats to validity were discussed which included the impact of the pandemic on participants and the criteria set for selecting participants. These threats were minimized using random selection and published instruments that have been validated through research. Data was obtained at random, and all surveys were anonymous to keep confidentiality. Chapter 4 will detail the results of the data analysis. MRC was used to examine the relationship between social media usage and physical isolation in individuals with BPD.

Chapter 4: Results

Introduction

Individuals who suffer from BPD experience turmoil in their interpersonal relationships. Despite engaging with significant figures within their social network, these individuals experience fear of perceived abandonment, loneliness, and isolation (Beeney et al., 2018). As a result, individuals who suffer from BPD may respond with maladaptive behaviors within their interpersonal relationships exacerbating their symptoms. The purpose of this study was to determine whether there is a relationship between social media usage and physical isolation experienced by individuals with BPD. Chapter 4 begins with a description of data collection methods. Next, the results of the study, including descriptive statistics, are given. This chapter concludes with a summary of the findings and answers to the study's research questions.

Data Collection

I collected data through the online survey platform Qualtrics. A total of 163 surveys were completed. Out of 163 surveys, 79 individuals were ineligible due to low scores on the FFBI-SF or nonresponse to questions. Individuals endorsing BPD symptomatology with an average score of 194/240 were included in the final participant pool. Recruitment was done using public Facebook groups focused on supporting BPD individuals and their families. Additionally, participants were recruited using Instagram and Twitter. The time frame for data collection was 13 days. There were no discrepancies in data collection from the plan presented in Chapter 3.

Demographic Characteristics

A total of 163 individuals completed the survey. After ineligible individuals were eliminated from the participant pool and the data cleaned for outliers, the sample population consisted of 74 participants. There was a total of six (8.1%) males, 64 (86.5%) females, and four (5.4%) individuals who identified as other. The number of participants in the age range of 18-20 was 18 (24.3%). There were 32 (43.2%) participants within the age range 21-29. The number of participants in the age range of 30-39 was 17 (23%). There were five (6.8%) participants within the age range 40-49. There were two (2.7%) participants within the age range 50-59. The social media network sizes within the participant pool were in the following ranges: 0-99, 100-299, 300-499, 500-699, and 700 or more. The number of participants falling within these ranges are as follows respectively: 10 (13.5%), 12 (16.2%), 21 (28.4%), 10 (13.5%), and 21 (28.4%). Demographic data about the 74 participants included in this study can be found in Table 1.

Table 1*Demographic Characteristics:*

Characteristic	<i>N</i>	%
Gender		
Male	6	8.1
Female	64	86.5
Other	4	5.4
Total	74	100.0
Age		
18-20	18	24.3
21-29	32	43.2
30-39	17	23.0
40-49	5	6.8
50-59	2	2.7
Total	74	100.0
Social Media Network Size		
0-99	10	13.5
100-299	12	16.2
300-499	21	28.4
500-699	10	13.5
700 or more	21	28.4
Total	74	100.0

The participant sample was an appropriate representation of the population of individuals suffering from BPD because probability sampling was used to collect data. The recruitment procedures used allowed any individual who meets diagnostic criteria for BPD to be included in the study. The results were generalizable because the researcher did not have access to an inpatient population suffering from BPD. The final sample size of 74 was larger than the sample size needed (36) for results to be valid.

Results

In this section, I will report descriptive statistics, evaluate statistical assumption related to MRC, and report the results of my analyses.

Descriptive Statistics

Descriptive statistics for the variables of social media usage, social media network size, physical social network density, physical isolation, and relationship closeness with unadjusted means and standard deviations is shown below in Table 2.

Table 2

Means and Standard Deviations of Variables:

	<i>N</i>	Mean	Std. Deviation
Social Media Usage	74	13.15	5.52
Social Media Network Size	74	3.27	1.34
Physical Social Network Density	74	0.51	0.25
Physical Isolation	74	7.66	1.39
Relationship Closeness	74	20.55	7.75

Social Network Analysis Results

This study included conducting social network analysis to quantify the variable physical social network density. Participants completed the SNaPSS tool and data was entered into Gephi 0.9.2 (Bastian et al., 2009) to calculate the network density. Network density ranges from 0 to 1 with 1 meaning the network is complete. The average physical social network density score was 0.51 meaning participants had an average of 51 % physical social capital. This value can be found in Table 2.

Statistical Assumptions

Assumptions related to MRC include normality, linearity, and homoscedasticity. In addition, it was assumed that the independent variables for RQ1 and RQ2, social media network size, physical social network density, and social media usage would be related, but unrelated to physical isolation and relationship closeness. These assumptions were tested using procedures outlined by Tabachnick and Fidell (2013). These results led

to the exclusion of some participant data to reduce the number of outliers and improve normality, linearity, and homoscedasticity.

Research Question 1

RQ1: What is the relationship between social media usage and social media network size in predicting physical isolation in individuals with BPD?

H_01 : In this sample, while controlling for physical social network density, social media network size and social media usage will not significantly impact physical, social isolation in individuals with BPD.

H_{a1} : In this sample, while controlling for physical social network density, social media network size and social media usage will significantly impact physical, social isolation in individuals with BPD.

Analysis for Research Question 1

MRC was used to determine if there was a relationship between the dependent variable social isolation and the independent variables social media network size, social media usage, and physical network density. The results indicated that the overall model was statistically significant, $R^2 = 0.14$, $F(3,70) = 3.84$, $p < 0.05$. The independent variable physical network density was entered in Model 1, explaining 0.2% of the variance in social isolation. After entry of the independent variables social media network size and social media usage in Model 2, the total variance explained by the model was 14%. The two independent variables social media network size and social media usage explained an additional 14% of the variance in social isolation after controlling for physical network density, $R^2 \text{ change} = 0.14$, $F \text{ change}(2,70) = 5.70$, $p < 0.05$. In the final

model, only the independent variable was statistically significant. A summary of the results can be found in Table 3.

Table 3

RQ1 Coefficients for Model Variables in Hierarchical MRC:

	<i>R</i>	<i>R</i> ²	<i>R</i> ² Change	<i>B</i>	<i>SE</i>	<i>Beta</i>	<i>t</i>
Model 1	.041	.002					
Network density				-.223	.647	-.041	-.345
Model 2	.376	.141*	.140*				
Network density				-.406	.611	-.074	-.663
Social media usage				.085	.028	.336	3.023
Social media network size				-.157	.111	-.157	-1.418

*R*² = amount of variance explained by the independent variables in the model

*R*² Change = additional variance in dependent variable

B = Unstandardized coefficient

Beta = Standardized coefficient

SE = Standard Error

t = estimated coefficient (*B*) divided by its own *SE*. If *t* < 2, the independent variable does not belong in the model

Statistical significance: **p* < 0.05

Confidence Intervals

I hypothesized that social media network size and social media usage would significantly impact physical social isolation when physical network density was controlled for. A 95% confidence interval was used for each coefficient estimated in the overall model, Model 2, for RQ1. With 95% confidence, the coefficient for physical network density was estimated to fall between -1.625 and 0.814. The coefficient for social media usage was estimated to fall between 0.029 and 0.140. Last, with 95% confidence, the coefficient for social media network size was estimated to fall between 0.378 and 0.064. As noted, social media network size and social media usage had a significant impact on physical social isolation.

Research Question 2

RQ2: What is the relationship between social media usage and social network size in predicting perceived face-to-face relationship closeness in individuals with BPD?

H_02 : In this sample, while controlling for physical social network density, social media network size and social media usage will not significantly impact perceived face-to-face relationship closeness in individuals with BPD.

H_{a2} : In this sample, while controlling for physical social network density, social media network size and social media usage will significantly impact perceived face-to-face relationship closeness in individuals with BPD.

Analysis for Research Question 2

MRC was used to determine if there was a relationship between the dependent variable perceived face-to-face relationship closeness and the independent variables social media network size, social media usage, and physical network density. The results indicated that the overall model was not statistically significant, $R^2 = .048$, $F(3,70) = 1.18$, $p > 0.05$. The independent variable physical network density was entered in Model 1, explaining 0.7% of the variance in perceived face-to-face relationship closeness. After entry of the independent variables social media network size and social media usage in Model 2, the total variance explained by the model was 4.8%. The two independent variables social media network size and social media usage explained an additional 4.2% of the variance in perceived face-to-face relationship closeness after controlling for physical network density, $R^2 \text{ change} = .042$, $F \text{ change}(2,70) = 1.53$, $p > 0.05$. In the final

model, none of the independent variables were statistically significant. A summary of the results can be found in Table 4.

Table 4

RQ2 Coefficients for Model Variables in Hierarchical MRC:

	R	R ²	R ² Change	B	SE	Beta	t
Model 1	.081	.007	.007				
Network density				2.479	3.605	.081	.688
Model 2	.219	.048	.042				
Network density				2.916	3.594	.095	.811
Social media usage				-.175	.164	-.125	-1.063
Social media network size				.886	.651	.159	1.360

R² = amount of variance explained by the independent variables in the model

R² Change = additional variance in dependent variable

B = Unstandardized coefficient

Beta = Standardized coefficient

SE = Standard Error

t = estimated coefficient (B) divided by its own SE. If $t < 2$, the independent variable does not belong in the model

Statistical significance: * $p < 0.05$

Confidence Intervals

I hypothesized that social media network size and social media usage would significantly impact perceived face-to-face closeness when physical network density was controlled for. A 95% confidence interval was used for each coefficient estimated in the overall model, Model 2, for RQ2. With 95% confidence, the coefficient for physical network density was estimated to fall between -4.252 and 10.084. The coefficient for social media usage was estimated to fall between -0.503 and 0.153. Last, with 95% confidence, the coefficient for social media network size was estimated to fall between -0.413 and 2.185. In this model, none of the independent variables had a significant impact on perceived face-to-face closeness.

Effect Size

The effect size used in this study was based on Cohen et al.'s (2013) suggestion of using a medium to large effect size to obtain significant results. As a result, the effect size used was 0.05. In the overall model for RQ1, $R^2 = 0.141$ while R^2 Change = 0.140. In the overall model for RQ2, $R^2 = 0.048$ while R^2 Change = 0.042. Both models had a medium to large effect size.

Post-Hoc Analyses of Statistical Testing

There were no post-hoc analyses conducted in this study.

Additional Statistical Testing

There were no additional statistical tests conducted in this study.

Summary

This study examined whether there was a relationship between the dependent variables physical isolation and perceived face-to-face closeness and the independent variables social media usage, social network size, and physical network density. While a total of 163 surveys were submitted, 74 participants were used in this study. The final participant pool consisted of six (8.1%) males, 64 (86.5%) females, and four (5.4%) individuals who identified as other. Participant age ranges were as follows: age range 18-20 was 18 (24.3%), age range 21-29 was 32 (43.2%), age range of 30-39 was 17 (23%), age range 40-49 was five (6.8%), and age range 50-59 was two (2.7%). The social media network sizes within the participant pool were as follows: 10 (13.5%) participants had a social media following of 0-99, 12 (16.2%) participants had a social media following of 100-299, 21 (28.4%) had a social media following of 300-499, 10 (13.5%) had a social

media following of 500-699, and 21 (28.4%) had a social media following of 700 or more.

RQ1 examined whether there was a relationship between social media usage and social media network size in predicting physical social isolation in individuals with BPD. The results of the analysis revealed that social media usage had a significant impact on physical social isolation after controlling for physical network density. RQ2 examined whether there was a relationship between social media usage and social media network size in predicting perceived face-to-face closeness in individuals with BPD. The results of the analysis revealed that social media usage and social media network size do not have a significant impact on perceived face-to-face closeness after controlling for physical network density.

In Chapter 5, I will describe how the findings of this study confirmed, disconfirmed, or extended the knowledge concerning BPD by comparing them to peer-reviewed research on the topic. Additionally, I will interpret the findings in context of the theoretical framework of social baseline theory. Next, I will describe the limitations of my study. The chapter will conclude with recommendations for future study and include implications for social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to determine whether there is a relationship between social media usage and physical isolation in individuals with BPD. This study was conducted to assist in providing insight into the effect of social media on social isolation in individuals with BPD, which can assist in improving treatment methods for this population. Chapter 5 begins by interpreting the findings of this study. Then, limitations of the study are discussed. Last, recommendations for future research are described, implications for positive social change are described, and the chapter is concluded.

Summary of Key Findings

There was a total of 163 surveys completed. Of the 163 surveys, 74 participants' data was used to conduct MRC analysis. The purpose of the analysis was to determine if there was a relationship between physical social isolation, perceived face-to-face relationship closeness and the three independent variables social media usage, social network size, and physical network density. The analysis revealed that there was a significant relationship between social media usage and physical isolation. On the contrary, there was not a significant relationship between social media usage and perceived face-to-face closeness.

RQ1 used hierarchical MRC to determine if there was a relationship between social media usage, social network size, and physical social isolation while controlling for physical network density. The results revealed that social media usage made a 14%

contribution to the variation in physical social isolation. This means that 14% of the variation in physical social isolation can be explained by variation in social media usage. In summary, only social media usage had a significant impact on physical social isolation in individuals who suffer from BPD; therefore, only social media usage and physical social isolation have a significant relationship. As a result, the null hypothesis for RQ1 was rejected. Social media usage and social media network size together have a significant impact on physical social isolation in individuals with BPD while controlling for physical network density. The null hypothesis for RQ2 was accepted. Social media usage and social network size do not significantly impact perceived face-to-face closeness while controlling for physical network density.

Interpretation of the Findings

Extension of BPD Knowledge

I examined whether social media usage contributed to or exacerbated two key behaviors of individuals who suffer from BPD, isolation, and loneliness. Lazarus and Cheavens (2017) found that individuals who suffer from BPD experience periods of self-isolation and loneliness. During these periods, they distance themselves from those whom they deem closest in their network. Further study revealed that individuals with BPD have less successful interpersonal relationships (Liebke et al., 2017). Because individuals who suffer from BPD fluctuate between valuation and devaluation of those within their social circles, they tend to have fewer sustaining relationships. As a byproduct, individuals who suffer from BPD have less practice building the social skills needed to maintain and manage interpersonal relationships.

The most current research has been inconclusive concerning the impact of social media usage on mental disorder. Brusilovskiy et al. (2016) found greater social media usage was correlated with more face-to-face interaction in individuals who suffer from schizophrenia, bipolar disorder, schizoaffective disorder, and depression. The Brusilovskiy et al.'s study was conducted using individuals in an inpatient facility. Resultantly, social media assisted these individuals in reintegrating into society. On the contrary, Richmond et al. (2020) found that negative affect was increased in individuals who suffer from BPD when they experienced rejection online. Individuals who suffer from BPD are sensitive to rejection. When they perceived they were being rejected online, negative affect increased. Additionally, Akca et al. (2020) found the individuals suffering from BPD symptomatology used social media excessively. There appears to be a correlation between addiction and BPD traits.

The findings of my research extend knowledge concerning the impact of social media usage on individuals who suffer from BPD. In particular, the study's findings demonstrate that social media usage is related to social isolation experienced by individuals who suffer from BPD. While there is no current literature related primarily to exploring the relationship between social media usage and social isolation in individuals who suffer from BPD, my findings extend the findings presented by Primack et al. (2017) who evaluated the association between social isolation and social media usage within a population not suffering from mental disorder. They found social media to have a linear relationship with social isolation. As social media usage increased, social isolation increased (Primack et al., 2017). While some researchers have found that social media

can have a positive impact on those suffering from mental illness, my research extends this knowledge by demonstrating that it can have a negative impact on individuals who suffer from BPD.

Theoretical Foundation

I used Coan's (2008) social baseline theory as the theoretical foundation. Bowlby's attachment theory and Otto's object relations theory were also used as they are connected to social baseline theory. Coan explains, using social baseline theory, attachment through the lens of metabolic functioning. Humans will focus on the interactions that cause them to expend the least number of metabolic resources. In return, they will focus on the relationships that where they can receive the most resources. This means that humans will form attachments in relationships where they give less resources but receive the most resources.

Beeney et al. (2018) stated that individuals who suffer from BPD experience extreme attachment disturbance. In many, this disturbance began during early childhood. Hughes et al. (2012) stated the social baseline model is an appropriate framework for understanding BPD due to the interpersonal dysfunction related to its symptoms. Neurologically, individuals with BPD experience social resource depletion becoming overwhelmed and leading to the search for additional social resources. After considering this theory, I considered how it related to the findings of this research.

RQ1 was designed to determine whether there was a relationship between social media usage, social media networks size, and physical isolation in individuals who suffer from BPD. The outcome of analysis determined that there was a relationship between the

variables. While social media network size did not have a significant impact on physical social isolation, social media usage did have an impact. In terms of the theoretical foundation used for this study, these results can be viewed as an individual's search for social resources. As individuals who suffer from BPD use social media, they receive social resources without expending as much metabolic energy. In return, they experience more social isolation from those whom they physically interact with.

Limitations of the Study

As mentioned in Chapter 1, I anticipated several limitations arising when attempting to collect data from participants who meet the criteria for BPD. First, I expected to have trouble reaching individuals who suffer from BPD without the assistance of a community inpatient facility. Thirty-six individuals who suffer from BPD had to be recruited for the study results to be valid. Finch et al. (2019) reported that 40% of individuals who suffer from BPD are treated in inpatient facilities. On the contrary, social media made it easy to identify individuals who suffer from BPD using tagging. The final number of participants used in analysis was 74.

Additional anticipated barriers in data collection included verifying the reliability of self-reported data and ensuring participants completed assessment tools in their totality. While I specifically recruited individuals who suffer from BPD, survey links were forwarded to friends of these individuals who may not have met the criteria for BPD. The FFBI-SF allows clinicians to quickly assess individuals for BPD (DeShong et al., 2016). To minimize the chances that someone who did not suffer from BPD would be included in the study results, the FFBI-SF was used and only participants who endorsed

suffering from all BPD symptomatology was included in the study. Last, to minimize the impact incomplete surveys could have on validity, I allowed 163 participants to complete the survey before closing data collection.

Recommendations

Brusilovskiy et al. (2016) stated that more research should be conducted to determine the impact of social media usage on mental disorder. As a result, the researchers studied the online presence of individuals with schizophrenia, bipolar disorder, schizoaffective disorder, and depression. They found that these individuals, who had spent time in an inpatient setting, used social media as a re-integration tool. Stockdale et al. (2015) found that individuals who suffer from BPD were more likely to participate in cyberbullying. These individuals experienced increased jealousy when viewing others online profiles. Consequently, they participated in increased aggressive online behaviors. Akca et al. (2020) found that individuals with avoidant, borderline, dependent, antisocial, paranoid, narcissistic, and histrionic personality features were more likely to use social media obsessively. Individuals with neurotic personality traits are more likely to suffer from addiction. Last, Primack et al. (2017) found a correlation between social media usage and social isolation within a population of individuals who did not suffer from BPD. Additionally, the researchers found that increased social media usage led to depression (Primack et al., 2017).

All the studies address a broader gap in literature concerning the impact of social media on mental disorder; however, all studies call for more research on the topic due to discrepancies in the impact. RQ1 of this study addressed whether social media usage had

an impact on social isolation. While analysis found social media usage to have a significant impact on social isolation, it is recommended that future studies determine whether this impact is related to difficulties with attachment experienced by individuals who suffer from BPD.

Implications

Potential Impact at the Individual and Family Level

In this study, I examined whether there was a relationship between social media usage and social isolation in individuals who suffer from BPD. In RQ1, I examined the relationship between social media usage, social network size, and physical social isolation in individuals with BPD. In RQ2, I examined whether there was a relationship between social media usage, social network size, and perceived face-to-face closeness in individuals who suffer from BPD. The results revealed that the overall model for RQ1 was significant with 14% of variation in social isolation being contributed to the impact of social media usage. On the contrary, the results from RQ2 were insignificant meaning that a significant relationship between social media usage, social network size, and perceived face-to-face relationship closeness was not found.

This data can be used by individuals who suffer from BPD to understand how the use of social media can further impact their ability to create and maintain relationships in the physical world. Additionally, their family members can use this information to understand greater fluctuations in devaluation. This information can be used to improve the face-to-face relationships of those who suffer from BPD. A greater understanding of why a family member who suffers from BPD is socially isolating themselves from other

family members can aid in helping those with BPD maintain the relationships that mean the most to them.

Potential Impact at the Practitioner Level

Based on the findings of this study and Coan's (2008) explanation of metabolic functioning and how it influences the human quest for emotional and social resources, I recommend the following suggestions for clinical practitioners who treat individuals who suffer from BPD. First, when treating individuals who suffer from BPD who explicitly reveal that they are having difficulty with maintaining interpersonal relationships, inquire concerning outside factors that could be exacerbating their issue such as the use of social media. Second, when treating couples where one member suffers from BPD, explain how outside factors such as social media usage can contribute to relationship dissatisfaction due to the amount of usage.

Conclusion

Csepeli and Nagyfi (2014) found that individuals with similar mental health problems found and befriended each other on social media platforms. Then, in 2017, Primack et al. found that social media increased depressive symptomatology in individuals with increased usage. In 2020, Akca et al. found that those with personality disorders overused social media. In the researcher's terms, these individuals became addicted to social media usage. On the contrary, other researchers found that social media usage can assist in integrating individuals with mental illness into the community (Snethen & Zook, 2016). These findings are indicative of a current need to study how social media is impacting the mental health outcomes within our society.

This study examined the relationship between social media usage, social isolation, and perceived face-to-face relationship closeness in individuals who suffer from BPD. A quantitative correlational design was used to determine this relationship existed. Final analysis revealed that while there was a significant relationship between social media usage and social isolation, there was no significant relationship between perceived face-to-face relationship closeness in individuals who suffer from BPD. It is recommended that further study be conducted to examine whether the relationship between social media usage and social isolation exist due to BPD symptomatology related to disturbed attachment.

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Appendix A: Permission to Use the Five-Factor Borderline Inventory Short Form

Monday, September 7, 2020 at 14:54:29 Eastern Daylight Time

Subject: Fwd: FW: Five-Factor Borderline Inventory Short Form - Use Permission

Date: Monday, September 7, 2020 at 2:51:15 PM Eastern Daylight Time

From: XXXXXXXXXXXX

To: XXXXXXXXXXXX

Hi XXXXXX,

You do have permission to use the FFBI and FFBI-SF.

XXXXXXXXXXXX

|

|

Appendix B: Permission to Use the Interpersonal Support Evaluation List-12



Interpersonal Support Evaluation List-12

PsycTESTS Citation:

Cohen, S., Mermelstein, R., Kamarck, T., & Hoberman, H. M. (1985). Interpersonal Support Evaluation List-12 [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t48933-000>

Instrument Type:

Inventory/Questionnaire

Test Format:

Items are rated on a 4-point scale ranging from 0 (definitely false) to 3 (definitely true). All items are summed to yield a total score (scores range 0–36).

Source:

Merz, Erin L., Roesch, Scott C., Malcarne, Vanessa L., Penedo, Frank J., Llabre, Maria M., Weitzman, Orit B., Navas-Nacher, Elena L., Perreira, Krista M., Gonzalez, Franklyn, Ponguta, Liliana A., Johnson, Timothy P., & Gallo, Linda C. (2014). Validation of Interpersonal Support Evaluation List-12 (ISEL-12) scores among English- and Spanish-speaking Hispanics/Latinos from the HCHS/SOL Sociocultural Ancillary Study. *Psychological Assessment*, Vol 26(2), 384-394. doi: <https://dx.doi.org/10.1037/a0035248>

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Appendix C: Interpersonal Support Evaluation List-12

 PsycTESTS[®]

doi: <http://dx.doi.org/10.1037/t48933-000>

Interpersonal Support Evaluation List-12 ISEL-12

ISEL 1 ^b	If I wanted to go on a trip for a day (for example to the beach, the country or mountains), I would have a hard time finding someone to go with me.
ISEL 2 ^a	I feel that there is no one I can share my most private worries and fears with.
ISEL 3 ^c	If I were sick, I could easily find someone to help me with my daily chores.
ISEL 4 ^a	There is someone I can turn to for advice about handling problems with my family.
ISEL 5 ^b	If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me.
ISEL 6 ^a	When I need suggestions on how to deal with a personal problem, I know someone I can turn to.
ISEL 7 ^b	I don't often get invited to do things with others.
ISEL 8 ^c	If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.).
ISEL 9 ^b	If I wanted to have lunch with someone, I could easily find someone to join me.
ISEL 10 ^c	If I was stranded 10 miles from home, there is someone I could call who could come and get me.
ISEL 11 ^a	If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it.
ISEL 12 ^c	If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me.

^a Appraisal subscale. ^b Belonging subscale. ^c Tangible subscale.

Note. Items are rated on a 4-point scale ranging from 0 (definitely false) to 3 (definitely true).

PsycTESTS™ is a database of the American Psychological Association

Appendix D: Permission to Use the Social Media Use Questionnaire



Social Media Use Questionnaire

PsycTESTS Citation:

Xanidis, N., & Brignell, C. M. (2016). Social Media Use Questionnaire [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t53578-000>

Instrument Type:

Inventory/Questionnaire

Test Format:

The SMUQ is comprised of 9 items. Items are evaluated on a five-point Likert scale, ranging from 0 (never) to 4 (always).

Source:

Xanidis, Nikos, & Brignell, Catherine M. (2016). The association between the use of social network sites, sleep quality and cognitive function during the day. *Computers in Human Behavior*, Vol 55(Part A), 121-126. doi: <https://dx.doi.org/10.1016/j.chb.2015.09.004>, © 2016 by Elsevier. Reproduced by Permission of Elsevier

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Appendix E: Social Media Use Questionnaire



doi: <http://dx.doi.org/10.1037/t53578-000>

Social Media Use Questionnaire SMUQ

Items

Withdrawal

1. I struggle to stay in places, where I will not be able to access SNS.
2. I feel anxious, when I am not able to check my Social network account.
3. I feel angry, when I am not able to access my social network account.
4. I use SNS when I am in the company of friends.
5. My relatives and friends complain that I spend too much time using SNS.

Compulsion

6. I feel guilty for the time I spend on SNS.
 7. I stay online longer than I initially intended.
 8. I spend a large proportion of the day using SNS.
 9. I lose track of time when I use SNS.
-

Appendix F: Permission to Use the Social Isolation Scale



Social Isolation Scale Version Attached: Full Test

PsycTESTS Citation:

Cotten, S. R., Anderson, W. A., & McCullough, B. M. (2013). Social Isolation Scale [Database record]. Retrieved from PsycTESTS. doi: <http://dx.doi.org/10.1037/t62081-000>

Instrument Type:
Index/Indicator

Test Format:

The Social Isolation Scale contains 3 items for which responses are coded as 1 (never), 2 (a little of the time), 3 (some of the time), 4 (most of the time), or 5 (all the time).

Source:

Reproduced by permission from: Cotten, Shelia R., Anderson, William A., & McCullough, Brandi M. (2013). Impact of Internet use on loneliness and contact with others among older adults: Cross-sectional analysis. *Journal of Medical Internet Research*, Vol 15(2), 215-227.

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Appendix G: Social Isolation Scale



doi: <http://dx.doi.org/10.1037/t62081-000>

Social Isolation Scale

How often do you feel that you lack companionship?

How often do you feel left out?

How often do you feel isolated from others?

Note. Responses were measured on a 3-point scale: 1 (hardly ever), 2 (some of the time), and 3 (often). Scores on the individual items were summed to produce the scale.

Appendix H: Permission to Use the Social Network and Perceived Support Tool

Tuesday, August 25, 2020 at 13:03:51 Eastern Daylight Time

Subject: Re: Social Network and Perceived Social Support Tool (SNaPSS) - Use Permission
Date: Thursday, July 16, 2020 at 3:17:04 AM Eastern Daylight Time
From: XXXXXXXX
To: XXXXXXXX

Hi XXXXXX,

Thank you so much for reaching out to me and your interest in the SNaPSS tool!

The SNaPSS tool is held on Qualtrics, and I've sent you a link below so you can have a play around to see what the interface looks like and the types of questions it involves.

It is quite straightforward for students to complete, though some post data processing is needed in order to generate the social network map (I use Gephi to do this).

Do have a look at the questions and see if this is something you'd be interested in using (also the social network portion can also be used independently if you are mostly interested in generating a social map, without the perceived social support section).

Thank you again for your interest and I very much look forward to hearing from you!

Best wishes,

XXXXXXXXXX