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MENTAL BOUNDARIES AS A MODERATOR OF THE RELATIONSHIP BETWEEN
SOCIAL SUPPORT AND SELF-ESTEEM

A Dissertation

Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for
the degree of Doctor of Philosophy

By

John Robert Mathe

May 2020

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John Robert Mathe

2020

DUQUESNE UNIVERSITY
SCHOOL OF EDUCATION
Department of Counseling, Psychology and Special Education

Dissertation

Submitted in Partial Fulfillment of the Requirements
For the Degree of Doctor of Philosophy (Ph.D.)

Executive Counselor Education and Supervision Program

Presented by:

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February 18, 2020

MENTAL BOUNDARIES AS A MODERATOR OF THE RELATIONSHIP BETWEEN
SOCIAL SUPPORT AND SELF-ESTEEM

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ABSTRACT

MENTAL BOUNDARIES AS A MODERATOR OF THE RELATIONSHIP BETWEEN SOCIAL SUPPORT AND SELF-ESTEEM

By

John Robert Mathe, MA

May 2020

Dissertation supervised by Matthew Joseph, Ph.D.

The purpose of the research was to explore the relationship between mental boundaries, self-esteem, and social support. With a sample of 295 participants, correlations and a moderation analysis were conducted to examine the relationships between mental boundaries, self-esteem, and social support. The study found that mental boundaries have a significant relationship with self-esteem and social support; however, mental boundaries do not moderate the relationship between self-esteem and social support. This study also examined the structure of the Boundary Questionnaire 18 (BQ18), utilizing an exploratory factor analysis. Suggestions for future research and implications for clinical work are offered, as well as a call for developing new ways to measure mental boundaries.

DEDICATION

This research is dedicated to my wife, Kim Mathe. Without you, on this adventure, I would be completely lost. Your love and support are what kept me motivated. I would also like to dedicate this research to future counselors, counselor educators, and researchers. If you have a dream or an idea, protect it. It will make a difference to someone.

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Chapter 1: Introduction

Overview

Boundaries are everywhere in the world around us. Most of these boundaries can be seen, such as a fence that surrounds a house, or the state line that separates two different states. Some boundaries are more complex, such as your own personal space, or a relationship with a co-worker. Those types of boundaries can be blurred at times. Mental boundaries are a complex construct that has not been explored in all areas of counseling such as the utilization in a counseling session or from the lens of a developmental theory. Understanding mental boundaries and being able to utilize this concept in the clinical world can help the development of new interventions with clients, a new way for clinicians to understand mental health, and to widen the literature of mental boundaries.

The idea that boundaries may be firm, thick, or impermeable, and more fluid, thin, or permeable, is a well-known concept (Federn, 1953; Hartmann, 1991; Landis, 1970). Hartmann (1991) described the distinction between thick and thin boundaries as the difference between two processes or functions in the mind, with thickness and thinness existing on a continuum. At the thin end of the continuum, there is an increased connection of functions in the mind, and at the thick end, there is more separation between functions in the mind. For example, thoughts and feelings are a function of the mind. An individual with thin boundaries would be more likely to let feelings get in the way of them making a decision, whereas an individual with thick boundaries would not let feelings interfere with their thinking. Another example of a function of the mind is sexual identity. An individual with thick boundaries has a clear sense of their sexual identity (e.g., “I am a man, and you are a woman, therefore we are different”) and an individual

with thin boundaries can see similarities in sexual identities (e.g., “I am a man, but have many feminine qualities too.”)

The main objectives of this study are to explore whether mental boundaries (Hartmann, 1991) are related to social support and self-esteem, and to examine if mental boundaries have a moderating effect on the relationship between social support and self-esteem among college students, in particular. Social support and self-esteem are two vital elements of well-being, and thus critical for counseling professionals to fully understand (Denenny, Thompsom, Pitts, Dixon, & Shiffman, 2015; Emadpoor, Lavasani, & Shahcheraghi, 2016; Goodwin & Plaza, 2000). Though some have posited relations between mental boundaries and self-esteem (e.g., Hartmann, 1997), and connections between mental boundaries and social support are suggested by relations found between similar constructs (e.g., Goodwin & Plaza, 2000), no known studies have empirically investigated relations among mental boundaries and these two essential aspects of mental health. There is a good deal of evidence supporting the link between social support and self-esteem; for example, individuals with higher levels of social support have been found to have higher levels of self-esteem (Li, Han, Wang, Sun, & Cheng, 2018; Kong, Ding, & Zhao, 2015; Pearson, 1986). However, factors that influence the nature of this relationship have not been fully explored. Some evidence exists for potential moderators of this relationship, such as academic stress and maladaptive mental health symptoms (Denenny et al., 2015; Li et al., 2018); however, other potential moderators, such as mental boundaries, need to be better understood.

Statement of the Problem

A lack of self-esteem hinders well-being and can create social, academic, and financial difficulties for college students (Crocker, Luhtanen, Blaine, & Broadnax, 1994; Crocker,

Luhtanen, & Cooper, 2003; Crocker & Luhtanen, 2003; Ferkany, 2008; Phinney, Chavira, & Williamson, 1992). Research on college-age students' self-esteem often focuses on external factors such as academic achievement, social contexts, and overall wellbeing (Arshad, Zaidi, & Mahmood, 2015; Crocker et al., 1994; Crocker & Luhtanen, 2003). Lower self-esteem can impact students with higher rates of mental and physical illnesses, such as depression and chronic health-related problems (Eisenbarth, 2012; Merianos, Nabors, Vidourek, & King, 2013). Students who experience mental and physical illnesses are prone to poor attendance, missing assignment deadlines, and leaving college unexpectedly (Megivern, Pellerito, & Mowbray, 2003). Conversely, students who raise self-esteem can mitigate stress affiliated with deadlines, friendships, and overall mental health (Dixon & Kurpius, 2008). To date, no empirical research studies have represented an investigation of a link between mental boundaries and the function of self-esteem in college students. In this study, then, I will investigate whether mental boundaries can positively impact students' self-esteem, thus enhancing their college experiences.

The literature on social support and self-esteem suggests a positive correlation between the constructs. Those with high levels of social support have more contact with family and friends, better stress-coping skills, fewer mental health problems, lower mortality rates, and higher self-esteem than those with poor social support (Bum & Jeon, 2016; Kong, Ding & Zhao, 2015; Pearson, 1986). Students with high levels of social support tend to have fewer mental health issues such as depression (Merianos et al., 2013). Including family, friends, and other social support networks in students' college experiences can enhance their ability to thrive, lessening the likelihood of mental health issues (Merianos et al., 2013).

Mental boundaries are not an entirely new subject of study. The construct of thick boundaries implies a degree of separateness (Hartman, 1991). Examples may include a person

who seems detached or unaffected by his or her surroundings. The construct of thin boundaries signifies permeability and fluidity (Hartmann, 1991). For example, a person with thin boundaries may have difficulty separating his or her sense of self from their surroundings and consequently have very strong emotions. Hartmann (1991) described persons with thick boundaries as being well-guarded, less open, and in possession of a more rigid lifestyle. On one hand there are advantages to having thick boundaries. Individuals with thick boundaries have sense of self, can easily separate thoughts from feelings, and have a group identity which means feeling connected to certain people with similar ideas (Hartmann, 1991). On the other hand there are disadvantages with having thick boundaries. Individuals with thick boundaries see the world as black and white and at times unable to see others' point of views, have rigid habitual lifestyles that if changed can cause distress, and are not open to new experiences (Hartmann, 1991).

There was an influx of research about ego boundaries in the late 19th and early 20th century when the psychological profession was dominated by the psychoanalytic approach; after that point, mental boundaries were not extensively studied. However, Ernest Hartmann (1991) contributed to the most current understandings of mental boundaries through his Boundary Inventory research, in which he initially investigated individuals suffering from nightmares. Hartmann's findings did not extend beyond the application of Boundary Inventory research in a counseling setting. Hartmann (1997) also conceptually explored several links between thin boundaries and self-esteem. These studies marked the first time self-esteem was mentioned in boundary literature regarding the sexual exploitation of clients by their counselors; he hypothesized that counselors who wrongfully exploited their clients have lower self-esteem and thinner boundaries. Ultimately, this research remains hypothetical: no empirical research has been completed to investigate this issue since the hypotheses were offered.

I will endeavor to establish whether mental boundaries are related to self-esteem and social support among college students, as well as whether mental boundaries moderate the relationship between social support and self-esteem.

Purpose of the Study

There are multiple purposes of this study. The first two purposes are to explore the potential relationships between mental boundaries and self-esteem, and mental boundaries and social support, among college students. Furthermore, through this study, I seek to add additional evidence that social support predicts self-esteem among college students; and, if so, explore whether mental boundaries moderate the relationship between social support and self-esteem. This study will also widen the literature that researchers, counselor educators, college counselors, and the general public can use when working with college students.

Research Questions

In the current study, I will attempt to address the following research questions:

1. Are mental boundaries a predictor of self-esteem among college students?
2. Is there a relationship between mental boundaries and social support among college students?
3. Does social support predict self-esteem among college students?
4. Do mental boundaries moderate the relationship between social support and self-esteem?

Statement of Potential Significance

Through the current study, I aim to extend the literature on the construct of mental boundaries, which has shown promise toward better understanding mental health (Hartmann, 1991). In particular, there is a lack of research regarding the impact that mental boundaries have on social support and self-esteem; moreover, mental boundaries will be explored as a potential

moderator of the relationship between social support and self-esteem. Possessing a better understanding of mental boundaries may help college counselors not only understand the relationship between student characteristics and self-esteem but also work with mental boundaries to increase self-esteem. In turn, students may develop strategies to utilize social support networks. Finally, this study may help justify the need for further research in the areas of mental boundaries, self-esteem, and social support among college students.

Theoretical or Conceptual Framework

Hartmann (1991) developed the Boundary Questionnaire (BQ) to measure individuals' boundary thickness. Later, the BQ was made into a shorter version, the Boundary Questionnaire-18 (Kunzendorf, Hartmann, Cohen, & Culter, 1997). With only 18 questions, the BQ18 was more efficient in assessing individuals.

Hartmann (1991) connected mental boundaries to other clinical disorders, creativity, and the counseling profession (see also Hartmann, 1997). Hartmann suggested that exploration of clients' boundaries and the advantages and disadvantages of the boundary types could enhance counseling efficacy. As his theory expanded to multiple populations, more studies started examining the relation of boundaries to other constructs such as religion and creativity (Harrison & Singer, 2010; Levin, Galin, & Zywiak, 1991).

Further research on this framework is based on the need for both advancing the literature and a theory that can be used by clinicians. Although most individuals have a general idea of the distinction between “thick-skinned” or “thin-skinned,” this framework expands upon those notions with empirical evidence of what it means to have thick or thin boundaries in relation to personality characteristics. Addressing thick and thin boundaries not only updates and expands

the literature but will also help individuals achieve a more straightforward understanding of their mental boundary characteristics.

Summary of Methodology

In this study, I employed a survey research design to examine relations among the variables of mental boundaries, social support, and self-esteem in a sample of college students, which is the population of interest. Moreover, I used these survey data to test whether mental boundaries functions as a moderator variable of the relationship between social support and self-esteem; in doing so, I sought to provide evidence for whether there are statistically significant changes in the relation between those two constructs, depending upon the level of boundaries an individual possesses. In order to address the first three research questions, correlations were conducted between mental boundaries and both self-esteem and social support. Finally, a hierarchical multiple regression was run to identify whether mental boundaries moderate the relationship between social support and self-esteem among college students.

Limitations

As with all studies, the present work has its potential limitations. A potential limitation that quantitative research always features is the threat of participant exaggeration or falsehood. These factors may hinder the data-gathering procedure and potentially skew results. Additionally, since the construct of mental boundaries remains broad and at times unclear, literature on mental boundaries is often confused about the dimensionality of the construct, resulting in questions of whether the construct has one dimension (thick-thin) or two dimensions (thinness and thickness). Even though this is not a central research question of the study, in order to properly address the research questions, the factor structure of the BQ18 was first explored. Additionally, because students may not fully understand the meaning of questions on

the BQ18, and satisfice answers, the data could be skewed. A final potential limitation could be the survey design itself: Given the time necessary to ensure that students both complete the survey and answer questions thoroughly, some subjects may not have finished due to their own time constraints; or, the quality of their data may have been compromised if they were not fully attentive for the full time that they were completing the survey.

Summary of the Introduction

This study sought to understand if mental boundaries are related to self-esteem and social support among college students, as well as whether mental boundaries moderate the relationship between social support and self-esteem. Since there has been no empirical research on this subject, its findings add to the literatures on mental boundaries, self-esteem, and social support. Further, this study may help inform a new way of working and conceptualizing client cases for researchers and clinicians working in the counseling field. Four more chapters follow. Chapter 2 is a comprehensive review of the literature on mental boundaries, self-esteem, and social support. In chapter 2, the primary topic discussed is the gap in the literature related to mental boundaries and self-esteem, and mental boundaries and social support. Chapter 3 will discuss the research design and the specific details of how the study will be conducted. The remaining chapters focus on the actual research conducted in this study, the results of the research conducted, and a discussion of the findings.

Definition of Key Terms

Mental boundaries. Defined by Hartmann (1989), the degree of connectedness among various aspects of the mind; and the degree of connectedness between the self and the outside world.

Thick boundaries. Defined by Hartmann (1991), this construct implies a degree of separateness. Examples may include a person who seems detached or unaffected by his or her environment, a person who is removed from close relationships, or a person who experiences minimal coming together between waking experiences and dreaming.

Thin boundaries. Defined by Hartmann (1991), signify permeability and fluidity. For example, a person with very thin boundaries may have difficulty separating his or her sense of self from the environment and consequently have very strong emotions. Others with thin boundaries may have difficulty in distinguishing dreams from reality.

Social support. This is defined by Shumaker and Brownell (1984) as an exchange of resources between two or more individuals perceived by the provider or the recipient to be intended to enhance the wellbeing of the recipient.

Self-esteem. Defined by Rosenberg (1965), this concept refers to an individual's subjective evaluation of his or her worth as a person.

Chapter 2: Literature Review

This chapter will review the literature on mental boundaries, particularly Ernest Hartmann's (1991) conceptualization. Because the construct of boundaries is complex and has conceptual roots dating back to the early 20th century, this literature review will include conceptualizations from other theorists predating the work of Ernest Hartmann. Reviewing literature before his work will help to define the construct of boundaries with more precision. This chapter will examine other constructs related to mental boundaries, such as the personality trait of openness to experience, as well as relations between mental boundaries and mental health. Chapter 2 will also include a review of the literature on self-esteem and, more specifically, how self-esteem is defined and measured. Additionally, Chapter 2 will examine social supports and how they are connected to college students' self-esteem. Further, Chapter 2 will present an overview of various measurements of mental boundaries, self-esteem, and social support.

Hartmann's Boundary Concept

Ernest Hartmann initially investigated relationships among sleep, dreams, and nightmares (Hartmann, 1976; Hartmann, Russ, Van der Kolk, Falke, & Oldfield, 1981). His agenda revolved around understanding how the psychological and biological understanding of waking psychic structures impacted individuals' sleep and, in turn, their dreams (Hartmann, 1976). Soon, he and colleagues gained an interest in individuals who suffered from chronic nightmares; they also wondered about potential relationships among nightmares, schizophrenia, and creativity (Hartmann et al., 1981).

Hartmann (1989) identified characteristics associated with thin boundaries in nightmare sufferers. Individuals who experienced frequent nightmares were usually open, artistic,

undefended, and vulnerable in different areas of the senses (Hartmann, 1989, 1991; Hartmann et al., 1981). He also found similarities in personality characteristics among veterans who reported nightmares (Hartmann, 1989; Van der Kolk, Blitz, Burr, Sherry, & Hartmann, 1984). At that time, the Hartmann Boundary Questionnaire (BQ) was developed and is still used today to understand the thickness of nightmare sufferers' boundaries.

History of concepts related to boundaries. Boundary research, in one form or another, has been conducted for over 100 years. The term "ego boundary" has been widely used in psychoanalytic literature (Federn, 1952; Freud, 1923). Freud (1923) describes *Reizschutz*, meaning a protective shield or barrier against stimulation that can cause damage to the ego. Federn (1952) used the term "ego boundary" to describe the separation between the id, ego, and superego from the outside world. According to Federn (1952), there are two kinds of boundaries: an inner boundary within the personality, and one external to the personality, separating self from others.

Lewin (1936) defined the mind as being divided into many regions that act upon each other and are separated from each other by lines of different thickness. A boundary is a border between two regions of the mind separating interactions between the two regions. These regions are similar to how Hartmann (1991) explains functions in the mind, such as one's own thoughts being a region and one's own feelings being another. The boundary between those two regions can keep them separated, or there can be less of a boundary, making them more connected almost as one. Landis (1970) identified different degrees of thickness between two different regions of the mind. This theory is also an expansion of Freud and Federn's theory in the areas of the ego and non-ego parts of the mind. Landis (1970) proposed that boundaries in the mind can be permeable or impermeable; a permeable boundary has a degree of openness between the

ego and non-ego, while an impermeable boundary has a degree of solidity and closedness between ego and non-ego. The degree of permeability and impermeability is on a bipolar continuum, just like boundary thickness and thinness (Hartmann, 1991; Landis, 1970).

Rokeach (1960) theorized the mind as having open and closed systems. Rokeach (1960) also believed that open and closed systems of the mind were on a continuum based on the mind's organization of belief and disbelief. Rokeach suggested that there are essential characteristics defining a person's mental system as open or closed. The classification of an open or closed mind is based on how a person receives, evaluates, and acts on relevant information from outside its own beliefs (Rokeach, 1960). For example, an open mind has a lower rejection of information when it comes from outside sources, and a closed mind will reject more information that does not meet the individual's belief system (Rokeach, 1960).

William James (1907) divided people into two categories, empiricists and rationalists. Empiricists base conclusions on facts, and the rationalists make determinations based on abstraction and eternal principles. James (1907) claimed that an individual rationalist is a person of feeling—which he referred to as “tender-minded”—as opposed to an individual empiricist, a person who is proud to be hard-headed or “tough-minded.” Hartmann (1991) similarly described individuals as having thick or thin boundaries; on the thicker side of the continuum, the individual is more rigid and armored, while those on the thinner side are more fluid and vulnerable. Hartmann's (1991) concept of thick and thin boundaries is closely related to James's notions regarding tender-minded and tough-minded individuals. Just like thick-boundaried individuals with characteristics of rigidity, timeliness, organization, and the ability to separate thoughts from feelings, tough-minded individuals are factual, materialistic, pessimistic, and skeptical (James, 1907). Likewise, thin-boundaried and tender-minded individuals share

qualities such as idealism creativity, optimism, openness to new experiences, and inability to separate thoughts from feelings (Hartmann, 1991; James, 1907).

Summary. To an extent, each theorist who has studied boundaries to some degree has reached conclusions similar to Hartmann's boundary concept. Freud's (1923) notion of *Reizschutz* is similar to Hartmann's (1991) notion of thick boundaries. Protecting the ego is also protecting the self from external factors that can spread across the mind (Freud, 1923; Hartmann, 1991). Boundaries can also be characterized on a continuum: They can be firm, closed, impermeable, and thick on one end, and soft, open, permeable, and thin on the other (Federn, 1952; Hartmann, 1991; Landis, 1970; Rokeach, 1960).

Characteristics of thick and thin boundaries. Hartmann's research classified boundary thickness into two types: thick and thin. While most people were classified as having either thicker boundaries or thinner boundaries, the healthiest form of boundaries is a mixture of both (Hartmann, 1984, 1991, 1997; Hartmann, Rosen, & Rand, 1998; James, 1907). Hartmann (1991) found, as James (1907) surmised, that there are positive and negative characteristics to both thick and thin boundaries.

A person with very thin boundaries tends to be anything but rigid; these individuals may be involved in many tasks, struggling to focus on one at a time. This person has trouble differentiating between thoughts and feelings. This individual will probably have a high fantasy life, sometimes unable to separate fantasy from reality. In general, the thin-boundaried have a less solid sense of personal space, a tendency to merge with a partner or lose oneself in a relationship, and fewer psychological defenses (Hartmann, 1991, 1997).

A person with very thick boundaries can typically easily focus on one thing at a time and keep thoughts and feelings separate. These individuals' mental states are usually clear, for

example, regarding the distinction between fantasy and reality; additionally, they commonly possess a clear sense of the separation between past, present, and future. An individual with thick boundaries typically also has a strong physical boundary (a definite sense of space around himself) and a clear group identity that they can bond with and have connections with others. Such individuals also usually have a clear autonomous sense of self, never losing themselves in a relationship; they tend to see the world in terms of black vs. white, with no in-between (Hartmann, 1991, 1997; Hartmann et al., 1998).

Being either thick or thin, open or closed, tender-minded or tough-minded, and permeable or impermeable is related with a number of maladaptive tendencies (Hartmann, 1991; James, 1907; Landis, 1970; Rokeach, 1960). James (1907) suggests that individuals who are tender-minded can be overly optimistic and remarkably free-willed, just like those with thin boundaries. On the other end of the continuum, tough-minded individuals, pessimistic and realistic, are similar to those with thicker boundaries (James, 1907). As another example, open-minded individuals can separate their belief systems from others, while an individual with a closed mind has a difficult time trying on perspectives different from their own (Rokeach, 1960).

Hartmann suggests that a balance between thick and thin boundaries leads to a healthier self (Hartmann, 1991, 1997). Hartmann (1984, 1991) found that individuals who fall on the thinner side tend to enjoy performing creative and artistic endeavors. Levin et al. (1991) investigated how levels of creativity might relate to nightmares and boundaries; despite reaching mixed conclusions in this study, the authors suggested that individuals who suffer from nightmares appear to have a more creative self than individuals who do not have nightmares (Levin et al., 1991). As stated in the previous section, individuals who have frequent nightmares have thinner boundaries (Hartmann, 1991).

In their investigation of boundaries and openness, Hiel and Mervielde (2004) found that thin-boundaried individuals were more accepting of diverse groups of people and multiple conceptions of beauty. Numerous investigations of boundary structure and the Big Five personality dimensions have produced evidence that individuals with thinner boundaries are more likely to be extraverted, agreeable, open to experience, neurotic, and conscientious, and that those with thicker boundaries are less likely to possess these characteristics (Aumann, Lahl, & Pietrowsky, 2012; Hiel & Mervielde, 2004; Levin et al., 1991). Moreover, female participants have been found to have thinner boundaries than males, and females typically score higher than males on all five personality traits: extraversion, agreeableness, openness, neuroticism, and conscientiousness (Aumann et al., 2012; Hiel & Mervielde, 2004; McCrae, 1994).

Boundaries related to openness. Hiel and Mervielde (2004) examined the personality trait of openness in more depth than other personality traits. Their findings suggest that individuals' boundaries influence how open they are. Individuals with thin boundaries are more prone to be open, as individuals with thick boundaries are more reserved. However, this research contains limitations: The researchers primarily focused on conservative economic beliefs as a proxy for openness, and they do not clearly identify what causes someone to score higher or lower on those scales. McCrae (1994) found a very high correlation ($r = .73$) between boundaries and openness to experience, wherein those with thinner boundaries were more likely to be more open.

Mental boundaries and mental health. Both thinner and thicker boundaries have been linked to different mental illness and negative psychological well-being. Hartmann (1991) found that individuals with a diagnosis of schizotypal personality disorder or borderline personality disorder have thinner mental boundaries than overall population means, while persons with a

diagnosis of obsessive compulsive disorder score thicker than average. On the Minnesota Multiphasic Personality Inventory (MMPI), high scores (thin boundaries) are correlated positively with paranoia (Pa) and, in males, with (masculine/feminine (Mf)), but negatively with defensiveness (K). These results are expected since a high Pa score in a normal sample does not indicate paranoid illness generally, but rather sensitivity; a high Mf score in males indicates a willingness to accept feminine aspects of one's self; and a low K score implies a lack of defensiveness (Hartmann, 1991; Hartmann et al., 1998).

On the one hand, Hartmann (1991) suggests, based on his clinical experiences and suppositions that individuals with thicker boundaries can adapt to stressful situations more easily. Because thick-boundaried people are more likely to have characteristics such as organization, goal-directedness, reliability, responsibility, and dependability, individuals with thick boundaries tend to have jobs that have concrete deadlines and many work pressures. Thick-boundaried individuals also can adapt more easily to death and relationship issues (Hartmann, 1991).

On the other hand, Hartmann (1991) suggests that individuals with thinner boundaries have a harder time adapting to stressful situations. These individuals have characteristics such as being sensitive and vulnerable. Thin-boundaried individuals are still able to function with daily tasks but can be more prone to being overly stressed faster (Hartmann, 1991).

Attachment styles related to mental boundaries. Attachment is a deep and abiding emotional tie that connects one person to another across time (Ainsworth, 1979; Bowlby, 1969). The primary purpose of attachment behavior is to increase the need to survive in vulnerable individuals (Bowlby, 1969). As individuals age, they tend to remember their success at obtaining secure attachment figures, starting with caregivers and continuing with close friends

and romantic partners (Bowlby, 1969). Bowlby (1969) coined the term “working model” which refers to mental representations of particular attachment figures. There are two components to a working model: first, a model of significant others such as parents, close friends, and romantic partners, which includes their immediacy to comfort; and second, a model of self which includes information about an individual’s ability to obtain comfort from others.

Attachment does not have to be mutual, but rather, one person may have an attachment to an individual that is not shared. Attachment is characterized by specific behaviors in children, such as seeking proximity to the attachment figure when upset or fearful (Bowlby, 1969).

Bowlby (1969, 1973, 1980) identified four styles of attachment. Secure attachment develops in which there is a clear sense of safety and trust within the relationship. Anxious avoidant insecure attachment involves a lack of trust in an individual to fulfill their needs and is associated with emotional distance. Anxious resistant insecure (ambivalent) attachment is characterized by the exhibition of anger and helplessness in response to not feeling as if an attachment figure is reliable. Lastly, disorganized/disoriented attachment involves persons who often exhibit symptoms of depression, anger, and apathy in reaction to attachment figures who not perceived to be available.

Attachment styles, which are believed to develop in early childhood, are believed to impact persons way of relating in intimate relationships as adults (Ainsworth, 1989; Bowlby, 1977). Ainsworth (1989) believed that the attachment style that children develop in relating to parents, peers, and siblings effect the way in which they relate to intimate partners in adulthood.

Attachment theory has received considerable attention in both past and current research literature. Hazan and Shaver (1987) focused on romantic love relationships, and many adult relationships had infant-mother attachment features of having a desire for the closeness of an

attachment figure. Berant and Wald (2009) examined how attachment patterns related to mental representations of ego boundaries, and Simpson and Rholes (2017) examined how adult attachment related to stress in romantic relationships. Berant and Wald (2009) found by using individual self-reports of attachment styles in adulthood that attachment anxiety contributes to boundary issues. Simpson and Rholes (2017) found that highly avoidant individuals are not always unsupportive, uncooperative, or withdrawn in their romantic relationships. Moreover, Simpson and Rholes (2017) found that there are certain attributes of avoidance that are more prone with certain types of stressors.

There are some similarities and differences in attachment theory and boundary theory. In both theories there is an aspect of interpersonal and intrapersonal relationships between self and others (Bowlby, 1969; Hartmann, 1991). Attachment theory takes a deeper investigation between caregivers and children, as boundary theory does not. However, more recently there has been more research on how adult attachment can influence romantic relationships (Simpson & Rholes, 2017), which would be more closely related to Boundary theory based on examining adults. Based on both theories, connections can be made. For instance, thicker boundaried individuals are more rigid and are able to keep a safe distance from getting too emotional involved in a relationship (Hartmann, 1991). When examining an individual with thicker boundaries, one could say this individual has a secure attachment; that is, they have a sense of trust and security in the relationship. Alternately, this individual may have a disorganized/disoriented attachment, based on how this individual has been treated in previous relationships.

Within the mental boundary literature, there has been a connection made to attachment styles. Zborowski, Hartmann, Newsom, and Banar (2003) found that insecure attachment style

and thin boundaries had a high association ($r = .74$). The authors hypothesized that thick-boundaried individuals are likely to range from secure to avoidant depending on their degree of thickness. Since this study, there has been no other empirical evidence produced based on attachment style and mental boundaries.

Measuring boundaries. The Hartmann Boundary Questionnaire (BQ; Hartmann, 1991) is the most commonly used and best-established measure of mental boundaries. This section will describe the BQ along with its shortened version, and also address how other measures compare with the BQ.

Hartmann Boundary Questionnaire (BQ). The BQ is a self-reported inventory designed to measure thick and thin mental boundaries. At the time of its creation, it was the first questionnaire that did not measure mental boundaries through projective measures (Fisher & Cleveland, 1968; Landis, 1970). The BQ is a 138-item inventory addressing 12 different content areas as follows: (1) sleep dreams wakefulness; (2) unusual experiences; (3) thoughts, feelings, and moods; (4) impressions of one's own childhood, adolescence, and adulthood; (5) interpersonal distance and openness and closeness; (6) sensitivity; (7) preference for neatness and precision; (8) preference for clear edges, lines, and clothing; (9) opinions about differences between children and adults; (10) opinions about organizational lines of authority; (11) opinions about boundaries among groups, peoples, and nations; and (12) opinions about the identities among beauty, truth, and other abstract concepts (Hartmann, 1991; Harrison, Hartmann, & Bevis, 2006).

Participants are instructed to answer each question on a 5-point Likert scale ranging from 0 ("not at all true of me") to 4 ("definitely true of me"). The measure is limited, however, by its vague scoring instructions and lack of clear cut-off points for clinical use. Harrison et al. (2006)

found the BQ has high reliability ($\alpha = .925$); good construct validity, showing meaningful differences between theoretically thick and thin boundary groups of participants; and discriminant validity, showing significant correlations with some MMPI scales of psychopathology but not all.

Boundary Questionnaire-18 (BQ18). The BQ18 is a short form of the BQ with 18 items selected based on face validity, high correlation with total scores on the BQ, and distribution across the inventories' categories (Kunzendorf et al., 1997). The BQ18 is scored by inverting the rating scales on questions 5-7 and 16 and then adding the ratings for all 18 items (Kunzendorf et al., 1997). The BQ was very highly positively correlated with the totals on the BQ18 ($r = .87$). Each item of the 18 selected for the BQ18 had a mean correlation of ($r = .36, SD = .09$).

The BQ18's scoring for clinical purposes is more transparent than the full BQ (Aumann et al., 2012). There are no absolute cutoff points for the BQ18, but Kunzendorf et al. (1997) suggested that thick boundaries score less than or equal to 29, medium boundaries (a combination of thick and thin boundary characteristics) score between 30 and 42, and thin boundaries score greater than 42 (on a total scale of 0 to 72).

However, as is the case with the BQ, the BQ18 does not clearly specify whether the concept of boundaries is unidimensional, or if boundaries might comprise two dimensions, namely thick and thin. The extant research on the measurement of boundaries has not, to date, addressed this important issue. Thus, as described in Chapter 3, to facilitate a better understanding of the construct I conducted an exploratory factor analysis of the BQ18. This closer and more critical examination of the measurement, and thus conceptualization, of the construct will advance the literature on boundaries as well as help future researchers more definitively understand what is being measured.

Rorschach's measurement of boundaries. While research on the measurement of mental boundaries is limited, some research studies have delved into the topic using projective personality measures such as the Rorschach Inkblot. This is a controversial instrument that has been criticized for poor interrater reliability, lack of population norms, and the lack of ample validation studies (Blatt & Ritzler, 1974, Lilienfeld, Wood, & Garb, 2000). In investigating clients with schizophrenia, Blatt and Ritzler (1974) found that these individuals had difficulty maintaining a separation between independent events, self and non-self, and reality and fantasy. The main focus of this investigation was to determine how various levels of boundary disturbances relate to psychosis.

While using the Rorschach projective personality inventory, Blatt and Ritzler (1974) found that individuals with greater boundary disturbances think in a less appropriate, unrealistic way, ultimately possessing less cognitive and affective control. Difficulties in maintaining boundaries between independent objects are evident in the Rorschach personality inventory, where there is a merging and fusing of independent perceptions and contents. When this occurs, boundaries between separate ideas, images, or concepts are lost and become one single, distorted thought (Blatt & Ritzler, 1974).

When using the BQ and Rorschach test, Levin, Gilmartin, and Lamontanaro (1998) discovered that individuals with thinner boundaries were found to have significantly higher boundary disturbances than thick-boundaried individuals.

Jung's psychological types as measured by the Myers-Briggs Type Indicator (MBTI). Jung's original 1923 theory of psychological types was later operationalized by Myers (1962). Despite the MBTI's mixed validity and weak predictive value, it has been used extensively over the past 35 years in research and training efforts worldwide (Barbuto & Plummer, 1998).

Barbuto and Plummer (1998) compared Hartmann's concept of boundaries with Jung's Psychological Types. These authors found that there were small relationships between the MBTI subscales and boundaries scores; however, the low correlations demonstrate divergent validity for the two measures, suggesting that they are measuring two different constructs. For example, boundary scores were significantly positively correlated with two of the four MBTI scales (Sensing-Intuitive and Thinking-Feeling), even though the correlations were not high (r 's = .20 and .25, respectively). One-way analysis of variance (ANOVA) showed that boundary scores significantly differed in three of the four MBTI classifications, specifically Sensing-Intuitive, Thinking-Feeling, Judging-Perceiving). However, the R^2 values were small in all analyses, indicating a small proportion of explained variance (Barbuto & Plummer, 1998).

Self-Esteem

James (1890) suggested that striving to feel good about oneself is an important aspect of human nature. Self-esteem refers to an individual's subjective evaluation of his or her worth as a person (Rosenberg, 1965). Rosenberg (1979) described an individual with high self-esteem as someone with self-respect, worthiness, fault recognition, and appreciation of dignity. The term "low self-esteem," therefore, refers to people who lack self-respect, seeing themselves as untrustworthy and meager (Rosenberg, 1979). Other researchers have advanced this definition to include global feelings of self-worth, adequacy, self-acceptance, and self-respect (Crocker & Major, 1989; Rosenberg, 1965). Individuals need self-esteem and use a variety of methods to raise self-esteem levels (Diener & Diener, 1995; Dunning, Leuenberger, & Sherman, 1995; Epstein, 1973; Markus & Kitayama, 1991; Taylor & Brown, 1988). The need for self-esteem helps individuals with their general competence, moral self-approval, power, and love worthiness (Epstein, 1973). In general, self-esteem can motivate individuals to feel good about themselves

(Markus & Kitayama, 1991). When individuals' self-esteem is at risk, they respond by reflecting on their own positive characteristics (Dunning et al., 1995). Reflection on positive characteristics can act as a protective factor against the disruption of self-esteem because individuals will focus on the importance of success rather than failures (Dunning et al., 1995). Self-esteem forms early in development and, despite occasional short-term changes, remains relatively constant over the life span (Campbell, 1990; Trzesniewski, Donnellan & Robins, 2003).

Self-esteem has been studied in two distinct ways: as a self-assessment or an attitude toward particular objects (Rosenberg, Schooler, Schoenbach, & Rosenberg, 1995). Global self-esteem is a subjective self-assessment not based on any specific behaviors, as specific self-esteem refers to the way individuals evaluate their specific attributes and abilities (Marsh, 1990; Robins, Hendin, & Trzesniewski, 2001; Rosenberg et al., 1995). Global self-esteem refers to an individual's overall evaluation of self, and specific self-esteem concerns specific facets of the self, such as physical appearance or academic competence (Robins, Trzesniewski, & Donnellan, 2012).

College students and self-esteem. Themes within the literature on college students and self-esteem revolve around race, gender, academic performance, financial stability, and psychological needs (Arshad, Zaidi, & Mahmood, 2015; Bettencourt, Chalton, Eubanks, & Kernahan, 1999; Crocker, Karpinski, Quinn, & Chase, 2003; Crocker & Luhtanen, 2003; Crocker, Luhtanen, Blaine, & Broadnax, 1994).

Demo and Parker (1987) conducted a study on 298 college students to examine the relationship between students' grade point averages and self-esteem, along with sex and racial differences in self-esteem. The authors used a two-way ANOVA to conclude that there were no

significant differences in the self-esteem levels between Black and White students. The authors delved further looking into potential sex differences and found that White females scored lower on self-esteem than White males, whereas Black males and Black females did not differ. The group with the lowest self-esteem was White females.

More recently, Arshad, Zaidi, and Mahmood (2015) investigated the relationship of self-esteem and academic performance of males and females in a college setting. The sample size consisted of 80 students, 40 males and 40 females. The authors found a significant relationship between self-esteem and academic performance ($r = 0.879, p < .01$). The authors also found that male students had higher levels of self-esteem than female students.

Similarly, Crocker et al. (2003) investigated the relationship between grades and self-esteem in a sample of 122 college students. The authors found that students' poor grades on exams or papers resulted in lower self-esteem for the rest of the day; women in particular were more vulnerable to decreased self-esteem as a result of a bad grade, but when women received higher grades on assignments, their self-esteem was more likely to significantly improve.

Crocker et al. (2003) also found that students who based self-esteem on academic performance in their early college years were more likely to have both lower self-esteem and greater academic stress for the duration of their time in college (see also Crocker & Luhtanen, 2003). These students were also more prone to distress if their grades remained below average (Crocker et al., 2003; Crocker & Luhtanen, 2003).

There is literature regarding strategies to improve self-esteem (Bettencourt et al., 1999); these findings can be used by both campus clinicians and administrators. Bettencourt et al. (1999) found that college students who remained alone or isolated had lower self-esteem levels than students who immersed themselves in extracurricular activities or found identification with

groups of like-minded people. As a result of this group identification, students gained a sense of self and belonging among peers, resulting in overall development, higher self-esteem, and an easier adjustment to college life (Bettencourt et al., 1999).

Crocker et al. (1994) examined collective self-esteem among college students within the context of race. Collective self-esteem describes the aspect of an individual's self-image that develops from how the individual interacts with others and the groups the individual belongs to (Bettencourt et al., 1999; Crocker et al., 1994). Crocker et al. (1994) were interested in how race and collective self-esteem related to students' growth in college, as well as their overall psychological well-being. The authors found that Asian college students' self-esteem was unrelated to psychological well-being, but Black and White students used group identity to form self-esteem. Bettencourt et al. (1999) and Crocker et al. (1994) emphasized that students of all races could identify with their in-groups to enhance self-esteem.

In a college setting, self-esteem is an element in a student's overall success (Arshad et al., 2015; Bettencourt et al., 1999; Crocker et al., 2003; Crocker et al., 1994; Crocker & Luhtanan, 2003; Demo & Parker, 1987). In general, gender does seem to be related to self-esteem, especially when paired with academic performance (Arshad et al., 2015; Crocker et al., 2003; Demo & Parker, 1987). Research also suggests that there are racial differences based on group identification (Crocker et al., 1994). Overall, then, these findings emphasize the importance of campus leaders promoting student involvement in clubs or groups toward increased self-esteem (Bettencourt et al., 1999).

Boundaries and self-esteem. To date, there have been no known empirical studies on how thick and thin boundaries are related to self-esteem. However, there have been suppositions by Hartmann (1997) that leave room for further research to determine connections between

boundaries and self-esteem. Specifically, Hartmann's ideas about how mental boundaries may play into the pathology of therapists who violated boundaries in a counseling relationship may be connected to a potential relationship between self-esteem and boundaries.

Hartmann (1997) explained that within the context of therapy, "boundaries" refer the alliance between therapist and client, and includes the therapist's ethical conduct. Hartmann further believed that counselors with thin boundaries are more prone to breaking ethical standards (e.g., having personal relationships with clients), but that thick-boundaried counselors can also violate such standards. Hartmann (1997) postulated that therapists prone to breaking ethical conduct were definitively classified as thick-boundaried or thin-boundaried; they tend not to fall in the middle of the continuum. According to Hartmann, boundary-violating therapists with thin boundaries, especially within an interpersonal sphere, struggle to define limits of therapy, failing to separate their own needs from those of their clients. These therapists may fall in love with their clients, and some express guilt over this admission. They often reject frustrations and difficulties in therapy, instead seeking love, appreciation, and support from their clients. Celenza (1991) noted that these therapists may have misconstrued countertransference, consistently avoiding any negative feelings from clients. Hartmann (1997) also explored client violation from thick-boundaried therapists, whom he felt demonstrate a lack of sensitivity or empathy, along with an unwillingness to acknowledge any harm done to a client.

Hartmann's (1997) notions are based solely on his observations and descriptions—he did not examine the existence of relationship between self-esteem and boundaries. However, he did make this link indirectly and compared his findings to Schoener and Gonsiorek's (1988) research on clinicians who had sexually exploited their clients. Hartmann (1997) believed that the two distinct groups he analyzed—thick-boundaried and thin-boundaried therapists—were very

compatible with Schoener's and Gonsiorek's (1988) classification of client-exploiting therapists. Shoener and Gonsiorek (1988) identified four groups of therapists that could be classified within Hartmann's (1997) descriptions of thick and thin-boundaried therapists. Those in the first group—who were psychologically healthy or only mildly neurotic—were generally aware of their unethical nature, and felt remorseful, extremely anxious, and depressed; these client-exploiting therapists had more characteristics of thin boundaries. Those in the second group, who were severely neurotic and socially isolated; had longstanding emotional problems; depression; feelings of inadequacy; and—most notably in the context of this investigation—low self-esteem, had more characteristics of thin boundaries (Schoener & Gonsiorek, 1988).

Those in the third group, who are impulsive—were generally impulsive in nature, prone to insurance fraud, sexual harassment of employees, and lack genuine remorse of the effects of their behavior had on their victims; these client-exploiting therapists had more characteristics of thick boundaries. Those in the fourth group, who were sociopathic or narcissistic—also have impulsive tendencies, but what is different is these therapists is they are more intentional and devious in their sexual exploitation of clients, and use manipulation in order to avoid consequences; these client-exploiting therapists also had more characteristics of thick boundaries (Schoener & Gonsiorek, 1988).

Openness and self-esteem. In order to gain a richer understanding of mental boundaries and self-esteem, the relationship between openness and self-esteem will be explored given the close connection between openness and boundaries (as reviewed above). Few studies have approached this topic; however, some researchers have attempted to address how the personality characteristic of openness is related to self-esteem levels. The literature on college students and

self-esteem does not explore the relationship between personality characteristics and self-esteem, so to broaden the views on these topics, non-student populations will also be examined.

Robins, Tracy, Trzesniewski, Potter, and Gosling (2001) investigated personality correlates of self-esteem. The researchers had a large sample of 326,641 participants, finding that self-esteem correlated positively with openness ($r = .17$). Similarly, Zeigler-Hill et al. (2015) investigated self-esteem and personality characteristics with a sample of 1,644 undergraduate college students. The research suggested a positive correlation between self-esteem and openness. Lastly, the researchers found individuals with high self-esteem were perceived by friends and family as having higher levels of openness due to their acceptance of new experiences or ideas.

The overall findings with regard to the relationship between self-esteem and openness suggest a positive, albeit weak one (Costa, McCrae & Dye, 1991; Kwan, Bond, & Singelis, 1997; Robins et al., 2001; Zeigler-Hill et al., 2015). It might thus be inferred from these findings that, given that individuals with thicker boundaries are likely to be less open to new experiences and individuals with thinner boundaries will be more open to experience, thick-boundaried people are likely to be lower in self-esteem and thin-boundaried people are likely to be higher in self-esteem.

Measuring self-esteem.

Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem Scale (RSES) is a 10-item scale introduced in 1965 to measure the self-esteem of high school students (Rosenberg, 1965). The scale is usually administered using a Likert-type response scale, utilizing 4, 5, or 7-point scales ranging from strongly disagree to agree strongly.

A vast amount of research validates the RSES as a credible instrument to measure self-esteem with acceptable to high reliability. Cronbach alpha coefficients for scores are usually above .80, and values above .90 have been reported in the literature (Heatherton & Wyland, 2003). Researchers have also found that Cronbach alpha coefficients are on the higher end ($\alpha = .88$) for a sample of college students (Fleming & Courtney, 1984).

Zeigler-Hill (2010) reported convergent validity between the RSES and the State Self-Esteem Scale (Heatherton & Polivy, 1991), with a correlation of .71. Zeigler-Hill (2010) also reported that the RSES was strongly associated with both Self-Liking ($r = .90$) and Self-Competence ($r = .71$) with scales developed by Tafarodi and Swann (2001).

The Single-Item Self-Esteem Scale. The Single-Item Self-Esteem Scale (SISES) developed by Robins et al. (2001) assesses global self-worth—the overall attitude one holds about oneself—on a scale from negative to positive. The SISES asks participants to rate the statement “I have high self-esteem” using a 5-point Likert-type scale, ranging from “not at all true of me” to “very true of me.” Internal consistency for the SISES is irrelevant because it is a single item measure; however, the authors reported a test-retest reliability of .75 (Robins et al., 2001). Reported correlations have been found between the SISES and RSES of $r = .75$ in a sample of college students, $r = .74$ in a second sample of college students, and $r = .80$ in a community sample (Robins et al., 2001).

The SISES is the briefest measure of global self-esteem available (Donnellan, Trzesniewski, & Robins, 2015); therefore, researchers should take some precautions. For example, the SISES may be more susceptible to extreme and forced responses because it has only one positively-termed item (Donnellan et al., 2015). Moreover, since the SISES has only

been validated in North America, it may lack universality among other cultures (Donnellan et al., 2015).

Self-Liking/Self-Competence Scale-Revised. Self-Liking/Self-Competence Scale-Revised (SLCS-R) (Tafarodi & Swann, 2001) was developed to examine two components of global self-esteem. The first component is sense of worth (self-liking), and the second is sense of personal efficacy, or self-competence (Tafarodi & Swann, 1995). Self-liking is a feeling towards the self, such as feeling good when thinking of the self. Self-competence is the feeling of being effective and in control and having thoughts of being successful in the future (Tafarodi & Swann, 1995). The SLCS items are measured on a 5-point Likert-type scale (1= Strongly Disagree to 5 = Strongly Agree). The scale has been revised to reduce the correlation between the two subscales and was finalized with 16 questions (instead of the 20 items on the original version) (Tafarodi & Swann, 2001).

Cronbach alpha coefficients were reported for self-liking (ranging from .70 to .98) and self-competence (ranging from .56 to .92) for both original and revised subscales (Tafarodi & Swann, 1995; Tafarodi & Swann, 2001). Self-liking and self-competence both have a strong correlation to the Rosenberg Self-Esteem scale. The correlations for the RSES and self-liking scale ranged from .74 to .88 and from .53 to .88 for the RSES and self-competence scale (Cicero & Kerns, 2011; Mar, DeYoung, Higgins, & Peterson, 2006; Vandromme, Hermans, Spruyt, & Eelen, 2007).

The SLCS-R does have potential use for future empirical work, but a major concern is how closely the two subscales correlate with each other ($r = .62$) (Ziegler-Hill, 2010). With such a high level of association between the two subscales, some researchers suggest that this scale examined only one construct (Donnellan et al., 2011).

Summary of measures. The above measures are examples of different and unique ways of measuring self-esteem. The traditional and most used to this date, the RSES, is the most well-validated measurement of self-esteem. The RSES can validly and reliably assess self-esteem, and provides simple, quick answers from participants. The SISE is the shortest self-esteem inventory to this date, with only rating one statement. While quick and easy to administer, this inventory requires caution because its lack of questions could lead to extreme self-esteem scores, based on only have few options to choose. The SLCS-R raises similar concerns, but because researchers are still uncertain if the scale actually has two subscales or whether the subscales are merely similar, an issue remains regarding whether it functions as a unidimensional measure of self-esteem.

Social Support

Shumaker and Brownell (1984) defined social support as an exchange of resources between two or more individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient. Social support has also been described as the knowledge that one is esteemed and part of a group (Pearson, 1986). Recent investigations of social support suggest that those with high levels of social support have better emotional and physical health than those without social support (Bum & Jeon, 2016; Empadpoor, Lavasani & Shahcheraghi, 2016; Kong et al., 2015; Shumaker & Brownell, 1984). Those with high levels of social support, on average, have more contact and friendships with others, higher self-esteem, better skills for coping with stress, fewer mental health problems, and lower mortality rates than those with poor social support (Bum & Jeon, 2016; Kong et al., 2015; Pearson, 1986). Researchers have suggested that receiving social support from multiple sources helps to form individuals' self-esteem (Goodwin & Plaza, 2000; Ikiz & Cakar, 2010).

Vaux (1985) suggested that many variables can impact the amount of social support needed by an individual. For instance, Vaux (1985) was interested in how gender, ethnicity, age, and subgroups membership affect types of support. For a majority of support needs, individuals turn to family and friends (Goodwin & Plaza, 2000; Ikiz & Cakar, 2010; Triandis, McCusker, & Hui, 1990). Individuals without support from family and friends might turn to professionals to meet their social support needs (Vaux, 1985). Wentzel, Battle, Russle, and Looney (2010) found that teachers can help students meet their social support needs.

Individuals with higher levels of social support generally have healthier psychological well-being (Diener, 2000; Diener, Oishi, & Lucas, 2015; Humphrey, Nahrgang, & Morgeson, 2007; Siedliecki, Salthouse, Oishi, & Jeswani, 2014; Turner, 1981; Winefield, Winefield, & Tiggemann, 1992). Research has found that individuals who are closer with family or friends have higher psychological well-being than those without these bonds (Siedliecki et al., 2014; Winefield et al., 1992). Researchers have also examined how material objects such as television, internet, and income can increase an individual's psychological well-being (Diener, 2000; Winefield et al., 1992). This research broadens the definition of social support by showing that even something as simple as an internet connection can give individuals access to the support of others via social media or e-mail (Diener, 2000; Diener et al., 2015). Social support from family and peers has the strongest effect on an individual's psychological well-being, but there are alternatives for individuals who might lack family or value privacy.

Personality also plays a role in social support and psychological well-being (Siedlicki et al., 2014). Personality can indirectly impact psychological well-being by influencing life events; in particular, sociability (a facet of extraversion) has been linked to increased positive affect

(Emmons & Diener, 1986). Sociable individuals tend to spend more time in social situations, which increases happiness (Emmons, Diener & Larsen, 1985).

In essence, research has indicated that higher levels of social support can improve psychological well-being, mental health, stress levels, academic performance, and, most importantly in the context the present work, self-esteem (Denenny et al., 2015; Emadpoor et al., 2016; Goodwin & Plaza, 2000; Kong et al., 2015; Li et al., 2018; Pearson, 1986; Tahir et al., 2015; Turner, 1981). Social support networks perform a critical function: creating healthy and supportive environments for individuals who cannot do so for themselves (Bum & Jeon, 2016; Li et al., 2018; Turner, 1981). Thus, when college students are having troubles that lower their self-esteem, they can seek comfort, advice, and distractions from their social support networks (Bum & Jeon, 2016; Denenny et al., 2015; Li et al., 2018).

Measuring social support.

The Multidimensional Scale of Perceived Social Support (MSPSS). The Multidimensional Scale of Perceived Social Support (MSPSS) was developed as a brief self-report measure of social support in which 12-item ratings were made on a 7-point Likert-type scale ranging from very strongly disagree (1) to very strongly agree (7) (Zimet, Dahlem, Zimet & Farley, 1988). The 12-item MSPSS was designed to measure the perceived adequacy of support from the following three sources: family (Items 3, 4, 8, and 11), friends (Items 6, 7, 9, and 12), and significant other (Items 1, 2, 5, and 10) (Zimet et al., 1988).

The MSPSS and the Hopkins Symptom Checklist (HSCL) (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974) was administered to 275 male and female undergraduate students to validate the instrument (Zimet et al., 1988). A principal components factor analysis confirmed the factor structure comprising family, friends, and significant others subscales. Additionally,

coefficient alphas for the subscales and scale as a whole ranged from .85 to .91, indicating good internal consistency. Test-retest values ranged from .72 to .85, indicating good stability.

Adequate discriminant validity was demonstrated through non-significant correlations between the MSPSS subscales and the Depression and Anxiety subscales of the HSCL. In terms of sex differences, women reported receiving significantly greater support than men from friends, significant others, and overall (Zimet, Powell, Farley, Werkman, & Berkoff, 1990; Zimet et al., 1988).

The psychometric properties of the MSPSS were also tested with adolescents living in an urban area (Canty-Mitchell & Zimet, 2000). The authors tested for internal reliability of the measure and found the overall coefficient alpha for the 12-item MSPSS was .93. The Family, Friends, and Significant Other subscales demonstrated alphas of .91, .89, and .91, respectively, indicating good internal reliability.

Social Support Questionnaire (SSQ). The Social Support Questionnaire (SSQ) is a 27-item questionnaire measuring social support (Sarason, Levine, Basham, & Sarason, 1983). Each question has two parts to it. The items ask the participants first to (a) list the people to whom they can turn and on whom they can rely given sets of circumstances and, (b) indicate how satisfied they are with these social supports on a six-point Likert scale from “very dissatisfied” to “very satisfied” (Sarason et al., 1983; Sarason, Sarason, Shearin, & Pierce, 1987). The SSQ was validated with a sample of 602 undergraduate students. Inter-item correlations ranged from .35 to .71, and an alpha coefficient for internal reliability was .97 (Sarason et al., 1983; Sarason et al., 1987).

Norbeck Social Support Questionnaire (NSSQ). The Norbeck Social Support Questionnaire (NSSQ) focuses on interpersonal transactions and comprises three subscales: Total

Functional Support, Total Network, and Total Loss (Norbeck, Lindsey, & Carrieri, 1981). The scale was standardized on a sample of 135 nursing students. The NSSQ asks participants to list 20 people in their lives from whom they can receive support; after listing these individuals, participants respond to nine questions using a Likert scale (Norbeck et al., 1981).

The NSSQ has test-retest reliabilities ranging from .71 to .92. Construct validity was examined by correlating the measure with assessments of life change and mood states; however, there were no significant results, bringing the scale's validity into question (Norbeck et al., 1981; Norbeck, Lindsey, & Carrieri, 1983). Moreover, this questionnaire is lengthy and confusing to some individuals, rendering it a less desirable scale to use.

Summary of measures. Overall, there are numerous different ways to measure social support perceived by individuals. There are more traditional scales such as the MSPSS, which is brief and concise. There are other measures such as the SSQ and NSSQ, which require participants to think and physically write down names and ratings of individuals. In the case of a study that is going to be using different scales to measure different constructs, the MSPSS is a promising candidate due to its brevity and ease of scoring.

Social Support and Self-Esteem in College Students

Gonzalez, Hernandez, and Torres (2015) conducted a study on college students with an emphasis on the interplay of academic stress, social support, optimism-pessimism, and self-esteem. The study participants consisted of 118 college students (93 women and 25 men), aged between 20 and 31 years ($M = 21.4$ years, $SD = 0.41$). The expected outcomes of this study were that optimism, social support, and self-esteem would significantly predict levels of academic stress in university students. The researchers, however, found that the hypothesis was not fully met in this study. Instead, the study revealed that self-esteem had no measurable impact on

academic stress, but social support and optimism had a significant impact. Social support was found to be higher when students had more college-related stress. The researchers claimed that when students felt stressed with school, they would be more likely to turn to friends and family for relief.

Li, Han, Wang, Sun, and Cheng (2018) conducted a study investigating the mediating role of self-esteem in the relationships between social support and academic achievement and between social support and emotional exhaustion. The researchers used a sample size of 262 college students ($M = 19.25$, $SD = 1.07$). This study's findings differed from the Gonzalez et al. (2015) study on social support and self-esteem. Li et al. (2018) found that their hypothesis—that students with high social support have higher self-esteem—was supported.

In comparing the Li et al. (2018) and Gonzalez et al. (2015) studies, we can identify differences in the researchers' focus. First, Gonzalez et al. (2015) were primarily interested in variables other than self-esteem. Gonzalez et al. (2015) also did not consider many limitations (e.g., self-esteem not being affected by the stressors they examined). Therefore, the study found that self-esteem had no impact on academic stress, but social support helped reduce academic stress.

Goodwin and Plaza (2000) found similar results when investigating collectivism and social support in British and Spanish college students. Collectivism is based on the idea that culture gives privileges to a family and community of individuals (Goodwin & Plaza, 2000). Spanish college students, as a whole, had a more collectivist culture than British students; thus, unsurprisingly, Spanish students reported higher levels of social support from family and friends. However, the researchers found that social support and self-esteem significantly correlated in both Spanish and British cultures. Even though British students did not have as much social

support as Spanish students, the students consistently received the support needed, thus enhancing their self-esteem.

Social support has also been linked to maladaptive mental health symptoms and feelings of stigma (Denenny, Thompson, Pitts, Dixon, & Shiffman, 2015). The researchers found that students with higher social support systems have fewer mental health symptoms, lower feelings of stigma, and higher self-esteem (Denenny et al., 2015; Vogel, Wade, & Haake, 2006).

Maladaptive mental health symptoms such as loneliness, isolation, emotional abandonment, and bereavement can be seen in higher rates in students who do not have social support systems (Denenny et al., 2015; Pearson, 1986; Tahir, Inam, & Raana, 2015). By increasing social support networks, students can lower the risk of mental health issues and have higher self-esteem (Pearson, 1986; Tahir et al., 2015). When individuals increase social support, they can communicate with others to help identify realistic coping skills and appraise stressful events that could be threatening to their sense of purpose (Pearson, 1986). Overall, then, support from family and peers increases one's self-esteem and helps reduce mental health issues when individuals have allies to confide in (Tahir et al., 2015).

Social Support and Mental Boundaries

To the knowledge of the researcher, the connection between mental boundaries and social support has never been explicitly studied before. In the absence of previous work investigating relationships between these two constructs, the present review will draw theoretical connections between them.

On one hand, individuals with thin mental boundaries have difficulty focusing, separating thoughts from feelings, understanding a sense of self, not having a group identify, and forming psychological defenses (Hartmann, 1991, 1997). Hartmann (1997) already proposed that

individuals with thinner boundaries have lower self-esteem, so we can hypothesize they would benefit from having a strong social support system. This notion can be justified by acknowledging that individuals with thinner boundaries have lower self-esteem because they lack a sense of sense of self, and a better support system might enable these individuals to stay in touch with people who can make them feel good about themselves. For instance, Goodwin and Plaza (2000) found in their investigation of social support across individualist and collectivist cultures, that the more collectivist culture emphasizing group dynamics had higher levels of social support. Further, Triandis et al. (1990), along with Goodwin and Plaza (2000), noted that with individuals with strong levels of group identification typically have higher levels of self-esteem. In essence, connection to a group or feeling part of a group raises social support (Goodwin & Plaza 2000; Hartman, 1991; Triandis et al., 1990). Also, better social support networks could help thinner-boundaried individuals with mental health. Denenny et al. (2015) reported that when college students have a strong social support, they work through mental health issues in healthier ways.

On the other hand, individuals with thicker boundaries can more easily focus on a task; separate thoughts from feelings; distinguish among past, present, and future; clearly define self and self-space; have a group identity; and retain their identity in relationships (Hartmann, 1991; Hartmann et al., 1998). We can thus hypothesize two things about individuals with thicker boundaries: They have high levels of social support, and additionally, their strong sense of self and group identity could reduce the need for social support. Identifying with a group of people helps students get comfort and confide in others (Goodwin & Plaza, 2000; Triandis et al., 1990), and investigating how boundaries moderate social support and self-esteem will contribute to the boundary, social support, and self-esteem literatures.

Summary of the Literature

Neither older theories nor current literature directly address the potential connection between boundaries and self-esteem. Several studies have conceptually addressed these topics, but to this point, no empirical research has explored potential correlations. Establishing the nature of this relationship, if any, using empirical data would thus contribute to the literature of boundaries and self-esteem.

The literature surrounding college-aged students and self-esteem is currently focused primarily on achievement and other external factors; to date, researchers have not examined the role of mental boundaries in the self-esteem of college students. Connecting mental boundaries to self-esteem may help to widen the literature for professionals who address issues of low self-esteem with students.

Like self-esteem, social support is a well-studied construct within the college population, and the positive relationship between these two constructs is reasonably well-established. However, the empirical literature on college students does not connect either self-esteem or social support to mental boundaries. Since current research does not address interrelations among these three constructs, this study aims to fill this gap. Moreover, given the established connection between self-esteem and social support among college students, the potential role of mental boundaries as a potential moderator of this relationship is ripe for investigation.

Chapter 3: Methodology

There are four main purposes of this study: (a) to determine whether mental boundaries are a predictor of self-esteem; (b) to investigate whether there is a relationship between mental boundaries and social support among college students; (c) to determine whether social support predicts self-esteem among college students; and (d) to uncover whether mental boundaries moderate the relationship between social support and self-esteem. Data was obtained through surveys administered to currently-enrolled college students using a questionnaire comprising a set of demographic items, along with established measures of the three primary constructs of interest: mental boundaries, self-esteem, and social support.

Research Questions

This study has four research questions:

1. Are mental boundaries a predictor of self-esteem among college students?
2. Is there a relationship between mental boundaries and social support among college students?
3. Does social support predict self-esteem among college students?
4. Do mental boundaries moderate the relationship between social support and self-esteem?

Hypotheses

The following were the hypotheses under investigation:

H1: Thin boundaries predict higher levels of self-esteem among college students.

H2: A positive correlation exists between thin boundaries and social support.

H3: Social support positively predicts higher levels of self-esteem in college students.

Regarding hypothesis one, there has been no empirical research identified in order to predict if mental boundaries can predict levels of self-esteem. In order to justify this hypothesis,

there has been empirical research done on openness and mental boundaries finding that there is a high correlation with openness and thin boundaries ($r = .73$; McCrae, 1994). In order to further justify this hypothesis, I reference the empirical studies conducted on openness and self-esteem. Robins et al. (2001) found that there is a positive correlation between openness and self-esteem ($r = .17$). This evidence suggests that thin boundaries and self-esteem are likely to be positively related.

Regarding hypothesis two, there has been no empirical research on relations between mental boundaries and social supports. Therefore, only theoretical justifications can be used. Considering the research done on social support and self-esteem, higher levels of social support appear to be related to higher levels of self-esteem (Goodwin & Plaza, 2000; Li et al., 2018). Considering the research on openness and self-esteem, there is a positive correlation between openness and self-esteem ($r = .17$; Robins et al., 2001). By adding in the research on mental boundaries and openness, the evidence suggests there is a high correlation with openness and thin boundaries ($r = .73$; McCrae, 1994). Thus, by indirectly piecing together this evidence, I hypothesize that thin boundaries and social support are likely to be positively related.

Regarding hypothesis three, the relationship between social support and self-esteem has been empirically studied, with much evidence to suggest that social support is positively related to self-esteem level. Social support networks perform a critical function: creating healthy and supportive environments for individuals who cannot do so for themselves (Bum & Jeon, 2016; Li et al., 2018; Turner, 1981). Goodwin and Plaza (2000) found that students that have more support and community typically have higher levels of self-esteem. Li et al. (2018) researched college students and the role social support plays in their college experience. These authors found that students with higher social support on average have higher levels of self-esteem,

based on not feeling that they are not alone and are able to get guidance from others when needed.

There is no hypothesis four, given that there is no identifiable research that addresses whether mental boundaries can be a moderator for self-esteem and social support. So, this will be an exploratory question.

Research Design

In this research study, I will employ a quantitative design, using self-report survey instruments to gather data from students who are currently enrolled at an institution of higher education. Participants completed online surveys including demographic items and measures of the three primary constructs of interest. Data analyses included descriptive and inferential statistics.

Sample

In order to determine an appropriate sample size likely to reveal statistically significant effects in the current study, a power analysis was conducted using G-Power (Faul, Erdfelder, Buchner, & Lang, 2009). Effect sizes within the boundary literature range from $r = .16$ (Costa et al., 1991; Robins et al., 2001) to $r = .19$ (Kwan et al., 1997). Using these effect sizes as guidelines for an anticipated average effect size of $r = .17$ in the current study, along with a significance level of $p < .05$, the power analysis yields a necessary sample size of $N = 266$. I used that sample size as a guideline and aimed for more participants to reduce the likelihood of Type I statistical error.

Participants were recruited from one institution of higher education in the western Pennsylvania region of the United States, in an urban setting. Requests to participate were submitted through e-mail to professors and instructors teaching undergraduate classes at the

institution. When an instructor was willing to have students participate in the study, there was further instructions to send out to students and a link to an internet survey.

Data Collection and Data Analysis

Data collection occurred online surveys using Qualtrics. Instructors were given a link to the Qualtrics survey that was passed to students through email. The time that it took students to take the survey was about 15 minutes. Online surveys were distributed to many students at one time cutting down the data collection state amply. The researcher incentivized participation through a random drawing to win a \$200 Amazon gift card. Participants can add their e-mail addresses to the survey if they would like to be added to the random drawing for the gift card. Emails were entered into a random drawing generator. There then will be a winner of the gift card that the researcher contacted via email. By implementing an incentive can increase the participation of participants to take an online survey (Pedersen & Nielsen, 2016). Data was stored on the primary investigator's password-protected personal computer.

The researcher obtained permission from professors and instructors to recruit students for the survey. Having an online survey will allow for the opportunity for students to participate more, namely those who cannot participate in the an in-class administrations and/or when class time is not made available by the instructor. The survey gathered non-sensitive demographic information, as well as self-ratings of mental boundary thickness and thinness, social support levels, and self-esteem levels.

Before addressing the research questions, an exploratory factor analysis was computed to test the factor structure of the BQ18. Using SPSS, a principal axis factor analysis with oblique rotation was computed, using an Eigenvalue cut-off of 1 and a visual inspection of the scree plot to determine the potential number of factors in the scale.

Data was analyzed through SPSS (version 26) using correlations, multiple regressions, and PROCESS for SPSS (Hayes, 2012) for a moderation model. PROCESS is an SPSS add-on program designed to implement moderation analyses (Hayes, 2012). The goals of the data analyses were to address the following research questions and hypotheses:

1. Are mental boundaries a predictor of self-esteem among college students?

H1: Thin boundaries predict higher levels of self-esteem among college students.

2. Is there a relationship between mental boundaries and social support among college students?

H2: A positive correlation exists between thin boundaries and social support.

3. Does social support predict self-esteem among college students?

H3: Social support positively predicts higher levels of self-esteem in college students.

4. Do mental boundaries moderate the relationship between social support and self-esteem?

There is no hypothesis for this fourth research question.

In order to address research question one, a correlation was computed between mental boundaries and self-esteem. Similarly, in research question two, a correlation was computed between mental boundaries and social support. To address research question three, a correlation was computed between social support and self-esteem. Finally, to address research question four, a multiple regression was computed using PROCESS for SPSS to test whether mental boundaries moderates the relationship between social support and self-esteem. All data will be terminated within five years of publication.

Instruments. Data collecting instruments included the Boundary Questionnaire-18 (BQ18; Kunzendorf et al., 1997), the Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965), and the Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet et al., 1988).

One measurement was a shortened form of Hartmann's (1991) Boundary Questionnaire, the Boundary Questionnaire-18 (BQ18), which is a self-report inventory to identify the thickness levels of students' mental boundaries (Hartmann, 1991). This is the best-established survey scale measuring boundaries, and the BQ18 is preferred to the full-length version due to its brevity in the context of a longer questionnaire. The BQ was highly positively correlated with the totals on the BQ18 ($r = .87$). The mean correlation and standard deviation for the 18 original BQ items selected for the BQ18 was $r = .36$ and $SD = .09$, respectively.

The study also used the Rosenberg Self-Esteem Scale (RSES), a self-report inventory that identified the student's level of self-esteem (Rosenberg, 1965). The choice to use the RSES is based on the strong Cronbach coefficients usually above .80 across studies of self-esteem (Heatherton & Wyland, 2003). The RSES is also a simple measure to administer, and the brevity of the scale leads to participant focus. Several other self-esteem inventories were considered, but not used for this study. For example, the Single-Item Self-Esteem Scale (Robins et al., 2001) can produce extreme scores due to it being a single-item measure, and the construct validity of Tafarodi and Swann's (2001) Self-Liking/Self-Competence Scale has been brought into question (Ziegler-Hill, 2010).

The Multidimensional Scale of Perceived Social Support (MSPSS) is a self-report inventory to identify students' levels of social support (Zimet et al., 1988). This instrument was chosen for this study due to its brief and concise scale design. While the Social Support Questionnaire (Sarason et al., 1983) and the Norbeck Social Support Questionnaire (Norbeck et al., 1981) were taken into consideration due to their validity and prior use with college populations, completion of their open-ended items could be confusing and time-consuming.

All surveys were administered to students on paper or in an online format. See Appendices A-C for full scales and scoring procedures.

Demographics. There was a brief section at the top of the survey for participants to identify age, sex, major, and year in school; this demographic information was used to report the characteristics of the sample that was studied. No sensitive information was required for this section.

Human Participants and Ethics Precautions

There are no known issues related to interactions with participants or participants' rights. Participants did not disclose any identifying data. Participants were provided with the primary investigator's e-mail address for concerns or questions, or to revoke their consent after completing the survey. All participants completed informed consents to accompany the survey. Any informed consent not completed rendered the accompanying data unable to be used in the study. Informed consents did not contain any identifiable information.

There were no potential costs to the participants in this study, however, there were potential benefits. Participants had the chance to reflect on their level of self-esteem and social support; these reflections may have prompted participants to reach new insights, consider new topics, and make positive changes in their lives. Another benefit of participation in this study could be its outcomes. Participants had the chance to be involved in a study about previously unexplored topics, potentially adding to the mental boundaries, social support, and self-esteem literature. The simple act of participating in the study may help individuals feel they are contributing to a better understanding of these important constructs.

Summary of Methodology

The goal of this chapter was to outline the research method employed to answer the research questions. A discussion of the procedure, study participants, data collection, and data analysis was provided to give specifics on how the study would be conducted. In this chapter, the instruments were also discussed that were used to collect data. Ethical concerns were also addressed in this chapter to be more specific on the steps that were taken to ensure the participants' safety.

CHAPTER 4: RESULTS

There are multiple purposes for this study. The first two purposes are to explore the potential relationships between mental boundaries and self-esteem, and mental boundaries and social support among college students. Furthermore, through this study, I seek to add additional evidence that social support predicts self-esteem among college students; and, if so, explore whether mental boundaries moderate the relationship between social support and self-esteem. This study will also widen the literature that researchers, counselor educators, college counselors, and the general public can use when working with college students.

The understanding of mental boundaries and how mental boundaries are related with self-esteem and social support can increase further inquiry. Following the research aspect, practice is also an important avenue that can broaden the work clinicians do with clients. For example, working with an individual that has low self-esteem or low social support, clinicians can have another theory to suggest possible ways of working with those clients.

Analysis of the Data

Data collection yielded a total of 302 participants who completed a consent to participate at the start of the survey. Of these 302 participants, 7 surveys were eliminated from the study due to missing data of at least 50% of the survey, or missing age and year in school. This resulted in the final sample of 295 participants at the initial collection of data. All participants were of appropriate age for the study, as there were no participants who indicated they were under the age of 18 or not enrolled in undergraduate studies. All participants were undergraduate students at a four-year, medium-size, highly residential, private, not-for-profit university located in the Mid-Atlantic region of the United States.

Descriptive Statistics

Demographic variables. Males accounted for 98 (33.2%) of the participants, while females accounted for 194 (65.8%), and those indicating “Other” accounted for 3 (1%). The sample was predominately of White, non-Hispanic origin ($n = 251$, 85.1%). The remainder of the participants identified as Asian/Pacific Islander ($n = 18$, 6.1%), Black/African American ($n = 14$, 4.7%), Hispanic/Latino ($n = 9$, 3.1%), and Another Race/Ethnicity ($n = 3$, 1%). The average age of the sample was 20.34 ($SD = 3.18$), with a range from 18 to 49. The year of school for the sample was as follows: freshman ($n = 87$, 29.5%), sophomore ($n = 55$, 18.6%), junior ($n = 55$, 18.6%), senior ($n = 56$, 19%), and five years and beyond ($n = 42$, 14.2%).

Factor Analysis of the BQ18

An exploratory factor analysis was conducted to explore the underlying factor structure of the BQ18. To date, there are no known studies that have done so; however, such an exploration is important toward establishing the validity of the scale. The BQ18 was factor analyzed using principal axis factoring with Direct Oblimin (oblique) rotation, using SPSS 26. The Kaiser–Meyer–Olkin measure of sampling adequacy (.79) and Bartlett’s test of sphericity ($p < .05$) analyses indicated that the items were appropriate for the factor analysis. Using the traditional criterion for number of factors of retaining eigenvalues greater than 1 (see Tabachnick & Fidell, 2019), the initial analysis yielded five factors explaining a total of 49.86% of the variance for the entire BQ18. However, the scree plot was ambiguous and showed an inflection point that would instead justify retaining two factors based on the clear “elbow” in the plot after the second factor, with both factors still having eigenvalues above 1 (Tabachnick & Fidell, 2019). The factor analysis was then run again, forcing two factors only. When only two factors were retained, the factors had a total variance of 31.65%. Because the total variance is under

60%, this is a limitation to the study that would suggest more research on the psychometric properties of the BQ18. The limitation will be further discussed in Chapter 5. Factor 1 was labeled Thin Boundaries based on the content of the 13 items with loadings above (.3), including the following items, which taken together explained 20.36% of the variance:

- My feelings blend into one another.
- I am very close to my childhood feelings.
- I am easily hurt.
- I spend a lot of time daydreaming, fantasizing or in reverie.
- Sometimes it's scary when one gets too involved with another person.
- A good parent has to be a bit of a child too.
- I can easily imagine myself as an animal or what it might be like to be an animal.
- When I work on a project I don't like to tie myself down to a definite outline. I rather like to let my mind wander.
- In my dreams, people sometimes merger into each other or become other people;
- I believe I am influence by forces that no one can understand.
- There are no sharp dividing lines between normal people, people with problems, and people who are considered psychotic or crazy.
- I think I would enjoy being some kind of creative artist.
- I have had the experiences of someone calling me or speaking my name and not being sure whether it was really happening or whether I was imagining it.

The second factor derived was labeled Thick Boundaries based on the content of the 3 items with loadings above (.3), including the following items, which together explained 11.30% of the variance:

- I like stories that have a definite beginning, middle, and end;
- A good organization is one which all the lines of responsibility are precise and clearly established;
- There is a place for everything, and everything should be in its place.

To further optimize the measurement of mental boundaries, a second-factor analysis was computed based on only the thin-worded items. For the sake of this study, the reduced item scale composed of these 13 items will be called the “BQ13.” The five items that have been eliminated from this scale include those that are thick-oriented (i.e., the three comprising the second factor of the initial factor analysis), and those with low loadings ($<.3$) on either factor (which may have resulted from poor item construction). At first glance, the BQ18 is mostly thin worded items. The removal of all thick worded items may help justify the use of the BQ18 to be more of an inventory of thinness. The researcher took into account that the thick-worded items could be used as a subscale. However, a reliability analysis on the three thick items yielded a questionable Cronbach’s alpha of .63. The researcher decided to use only thin worded items based on the number of items that are thin worded and because the nature of the BQ18 may be more suitable for measuring thinness of boundaries and not thickness. The three items that were eliminated due to thick wording include: “I like stories that have a definite beginning, middle, and end;” “A good organization is one which all the lines of responsibility are precise and clearly established;” and “There is a place for everything, and everything should be in its place.” The two items eliminated due to low factor loadings include: “When something happens to a friend of mine or to a lover, it is almost as if it has happened to me;” and “I am a down to earth no nonsense kind of person.”

These “BQ13” items were factor analyzed using principal axis factoring with Direct Oblimin (oblique) rotation. The analysis yielded two factors explaining a total of 36.00% of the variance. Further, The Kaiser–Meyer–Olkin measure of sampling adequacy (.83) and Bartlett’s test of sphericity ($p < .05$) analysis indicated that the items were appropriate for the factor analysis. Eigenvalues were above 1 for the two factors; however, the scree plot indicated a clear “elbow” between the first and second factor, suggesting a single-factor structure (Tabachnick & Fidell, 2019). This single factor for the “BQ13” had an eigenvalue of 3.48 and explained 26.80% of the total variance, and all factor loadings were above .3.

Eliminating the aforementioned five items of the BQ18 increased the scale’s internal consistency and the resulted in acceptable factor loadings for each of the remaining items, and resulted in a more conceptually clear and interpretable unidimensional scale that coherently operationalizes the construct of mental boundaries, with high scores representing high “thinness.” Therefore, both the BQ18 and the new “BQ13” were both used for the relevant analyses in this study, the former for the purpose of allowing comparisons with previous research that used this scale and the latter for more validly-measured results.

Scale Reliabilities

Reliability analysis was run for each scale that was used in the study. The full BQ18 scale had an alpha level of .69, and the “BQ13” had an alpha level of .77. The RSES had an alpha level of .91, and the MSPSS had an alpha level of .92. The range of alpha levels (.69 - .92) for each of the scales in this study roughly met the conventional cut-offs for acceptable reliability, though the reliability of the BQ18 was at the low end of this range (see Tabachnick & Fidell, 2019).

Analyses of Research Questions

Research question one. This research question investigated whether there is a correlation between mental boundaries and self-esteem, and had the hypothesis that thin boundaries would predict higher levels of self-esteem. A Pearson correlation coefficient was calculated for the relationship between participants' mental boundaries (as measured by the BQ18) and self-esteem. The results showed a statistically significant correlation between mental boundaries and self-esteem. Specifically, a significant, moderate-sized, negative correlation was found ($r = -.38, p < .001$). This result suggests that, contrary to the hypothesis, higher levels of self-esteem predict thicker boundaries. A follow-up correlation was run for the same research question using the “BQ13,” with similar results ($r = -.41, p < .001$).

Research question two. This research question investigated whether there is a correlation between mental boundaries and social support, and had the hypothesis that there is a positive correlation between thin boundaries and social support. A Pearson correlation coefficient was calculated for the relationship between participants' mental boundaries (as measured by the BQ18) and social support. The results showed a statistically significant correlation between mental boundaries and social support. Specifically, a significant, weak, negative correlation was found ($r = -.24, p < .001$). This result suggests that, contrary to the hypothesis, participants with thin boundaries on average have lower social support. A follow-up correlation was run for the same research question using the “BQ13,” with similar results ($r = -.26, p < .001$).

Research question three. This research question investigated whether there is a correlation between social support and self-esteem, and had the hypothesis that social support predicts higher levels of self-esteem in participants. A Pearson correlation coefficient was

calculated for the relationship between social support and self-esteem. The results showed a statistically significant correlation between social support and self-esteem. Specifically, a significant, moderately-sized, positive correlation was found ($r = .47, p < .001$), indicating a significant linear relationship between the two variables. Participants with higher social support tend to have higher self-esteem.

Research question four. Finally, two moderation models were conducted to investigate whether mental boundaries moderate the relationship between self-esteem and social support, one for each measure of mental boundaries (the BQ18 and “BQ13”). These analyses were conducted using PROCESS for SPSS (Version 2.15) (Hayes, 2016). For the moderation analysis using the BQ18 as the measure of mental boundaries, the interaction effect was not significant ($b = -.024, 95\% \text{ CI } [-.084, .036], t = -.783, p = .434$) suggesting a lack of moderation. Similarly, for the moderation model using the “BQ13” to measure mental boundaries, the interaction effect was not significant ($b = -.018, 95\% \text{ CI } [-.079, .043], t = -.590, p = .555$).

Summary of Results

The overall findings in this study suggest there are significant correlations among mental boundaries, self-esteem, and social support; however, the results do not provide support for the notion that mental boundaries moderate the relationship between self-esteem and social support. One of the significant findings provides support for the hypothesis as predicted, namely that participants with higher social support tend to have higher self-esteem. However, the significant findings for research questions one and two yielded findings that ran in the opposite directions of the hypothesis; specifically, higher levels of both self-esteem and social support were found to be related to thick rather than thin boundaries. These unexpected findings will be discussed in Chapter Five.

Additionally, though not in specific reference to any of the research questions but instead as a preliminary exploration in the service of improved measurement, the factor analysis of the BQ18 yielded interesting findings. The results suggest that the structure of the BQ18 is likely not unidimensional, as the literature to date has assumed, and that the scale may have (at least) two factors. For the purposes of improved measurement in the current research study, the “BQ13” was derived from the results of multiple factor analysis runs eliminating all BQ18 items that reflected thick boundaries as well as those that did not exhibit sufficiently high factor loadings. The resulting scale might be viewed as a more precise measurement of boundary thinness, with high scores reflecting thinness and low scores reflecting thickness. However, in the present analyses, the results did not substantively differ when using the “BQ13” in place of the BQ18.

CHAPTER 5: DISCUSSION

The purposes of this study were to examine how mental boundaries correlate with self-esteem; how mental boundaries correlate with social support; how self-esteem and social support correlate; and lastly, how mental boundaries moderate self-esteem and social support. Additionally, as a subsidiary exploration to the main research questions, this study also investigated the factor structure of the Boundaries Questionnaire 18 (BQ18).

Chapter 5 will first discuss the factor analysis of the BQ18, followed by discussing the findings of research questions 1-4. This chapter will further discuss the limitations of this study, implications for practice, and recommendations for future research.

Factor Analysis

In previous literature, there have been attempts to understand the factor structure of the original BQ (Hartmann, 1991; Rawlings, 2001). However, there has been no known attempt to examine the underlying factors that make up the BQ18 (Rawlings, 2001). Therefore, as a preliminary step to investigating the main research questions, this study explored the factor structure of the BQ18 to gain a more in-depth understanding of what the BQ18 measures. As stated in Chapter 4, this study found evidence that there are at least two distinct underlying factors of the BQ18, and possibly several items that are not psychometrically sound. The first run of the exploratory factor analysis produced five factors. However, three of the factors had low eigenvalues (just above one) that fell after the “elbow” in the scree plot and showed some of the items double-loaded across the factors. Thus, the researcher forced a two-factor model that produced factors labeled “thick” and “thin,” based on the content and wording of the items and informed by Hartmann’s previous research on mental boundaries (e.g., Hartmann, 1991).

The Cronbach’s alpha for the full BQ18 in the current study was $\alpha = .69$, which is

roughly at the conventionally acceptable cut-off (Tabachnick & Fidell, 2019). The researcher then eliminated all “thick” worded questions based on the notion that the BQ18 may be more inclined to measure thin boundaries only on a unidimensional scale. Two other items were eliminated from the BQ18; it was unclear what they represented, given that the factor loadings were low ($<.3$) on both thin and thick factors. It was thus determined that these items might be unfit or problematic for the inventory as a whole. Taken together, the elimination of these five items on the BQ18 resulted in an alternate scale deemed the “BQ13.” With the alternative 13 question inventory, the Cronbach’s alpha increased to $\alpha = .77$, which is more clearly in the acceptable range for internal consistency suggesting an improvement in measurement.

Eliminating five questions from the BQ18 not only reduced the number of items but also may have changed the meaning of the inventory as compared to the BQ18, which included a mix of items focusing on thin and thick boundaries; all items on the “BQ13” are thin-worded questions. Kuzendorf et al. (1997) created the BQ18 as a shorter mental boundary inventory. However, in further examining the structure of the BQ18, it appears the creators intended to create a unidimensional inventory with thinness one end of the continuum and thickness on the other. In doing so, some items only focus on thick boundaries while the majority of questions are more thin boundary related. The authors of the BQ18 may have not anticipated how individuals may respond in different patterns to the thick and thin boundaried items. By measuring mental boundaries with a more explicit focus on positive responses to all items reflecting thinness—meaning negative responses would reflect thickness—the inventory would function more cleanly as a unidimensional scale. Further suggestions for recommendations for future research addressing the dimensionality of mental boundary measurement will be addressed later in this section.

Summary and Discussion of the Main Findings

Research question one. Research question 1 examined the correlation between mental boundaries and self-esteem. The hypothesis for the research question was that thin boundaries predict higher levels of self-esteem. In the mental boundary literature, no empirical studies have specifically addressed the relationship between mental boundaries and self-esteem. To inform the hypothesis in this current study, mental boundary's relationship to openness was explored, along with the relationship between self-esteem and openness.

McCrae (1994) found a very high correlation between mental boundaries and openness to experience, suggesting that individuals with thinner boundaries are more likely to be more open. Others have also found that openness to experience is significantly positively, though weakly, related to self-esteem (Robins et al., 2001; Zeigler-Hill et al., 2015). Transitively, the present work used these grounds to hypothesize that thinner boundaries would predict higher levels of self-esteem.

The results of the current study found the opposite of this hypothesis. The current study yielded results, both with the BQ18 and "BQ13," indicating that individuals with thicker boundaries have higher self-esteem.

Based on observations and descriptions of individuals with thick or thin boundaries, Hartmann (1997) indirectly connected mental boundaries and self-esteem through his analysis of previous clinical research. Specifically, Hartmann (1997) analyzed Schoener and Gonsiorek's (1988) study of clinicians who sexually exploited clients through the lens of his conceptualization of mental boundaries, and suggestions of what type of mental boundaries these therapists would most likely have.

Attachment styles can also be connected to the link between thin boundaries and low self-esteem. Therapists that are characterized by Schoener and Gonsiorek's (1988) as severely neurotic and socially isolated may be more likely to primarily exhibit an insecure attachment style. The therapists in their study in the severely neurotic and socially isolated group exhibited a lack of trust in individuals and may have maintained their distance by exploiting their clients in a sexual way. This may be due to the fear of having a relationship or using an individual that has lower self-esteem than themselves to exploit the client. By examining past thoughts and suggestions about thin boundaried individuals and self-esteem, it is fitting that individuals with thin boundaries would have lower self-esteem than thick boundaried individuals.

Research question two Research question 2 examined the relationship between mental boundaries and social support. The hypothesis for the research question was that a positive correlation exists between thin boundaries and social support. To date, there has been no empirical evidence produced on the relationship between mental boundaries and social support. However, as with the hypothesis for the first research question, the hypothesis for this second research question was formed from interpretations of findings from related literature.

Triandis et al. (1990), along with Goodwin and Plaza (2000), noted that individuals with substantial levels of group identification typically have higher levels of social support. In essence, connection to a group or feeling part of a group raises one's sense of social support (Goodwin & Plaza 2000; Triandis et al., 1990). These ideas can be linked back to Hartmann's (1991) characteristics of thick- and thin-bounded individuals. Hartmann (1991, 1997) surmised that individuals with thinner boundaries typically have less of a sense of self, lose themselves in a relationship, and have a weaker group identity. Therefore, it was hypothesized that individuals with thin boundaries would be more likely to have higher social support based given the

evidence of high correlations between thin boundaries and openness (McCrae, 1994) and a positive correlation between openness and self-esteem (Robins et al., 2001).

The current study found the opposite of the hypothesis. The current study found a significant negative correlation between mental boundaries (as measured both by the BQ18 and “BQ13”) and social support, meaning individuals with thicker boundaries on average have higher levels of social support. When examining Hartmann’s characteristics of individuals with thicker boundaries, individuals with thicker boundaries have characteristics of a definite sense of self and group identity and are less likely to lose their own identity in a relationship (Hartmann, 1991). This would suggest that thick-boundaried individuals are more likely to have a group of individuals they can go to for support.

Attachment styles may also help explain this unexpected finding. Zborowski et al. (2003) found that insecure attachment styles are more prominent with individuals with thinner boundaries. Insecure attachment involves a lack of trust in an individual to fulfill their needs and can lead to emotional distance (Bowlby, 1969, 1973, 1980). Individuals with thinner boundaries typically have a difficult time forming deep, meaningful relationships with others (Hartmann, 1991). Although individuals do have a higher openness factor that may result in meeting many new people, their challenges with losing their own identity in relationships and having trouble finding a group identity may result in having fewer social supports. Zborowski et al. (2003) identified that thicker boundaried individuals are more likely to have a more secure attachment. Thus, thicker boundary individuals can have a relationship and not lose their own identity and have a group of individuals that they connect with (Hartmann, 1991).

The current findings in this study can also be viewed from a Bowenian perspective and more specifically his concept of differentiation of self. Differentiation is the capacity where

individuals can stay in emotional contact with individuals while keeping their own emotions separate from cognitions (Kerr & Bowen, 1988). Individuals that have clearly defined beliefs, principles, opinions, and values, have higher levels of differentiation (Bowen, 1978). Individuals that have issues with defining personal values that are different from others, lack clear relationship boundaries, seek approval in relationships, and are more emotional reactive, have lower levels of differentiation (Bowen, 1978). Bowen's concept of differentiation has some similarities with Hartmann's mental boundary concept. A hypothesis could thus be made that individuals that have higher levels of differentiation would have thicker boundaries.

The current study found that students with thicker boundaries have higher levels of social support. A supposition that can be made is that students with thicker boundaries have a higher level of differentiation. In turn, these individuals may have clearer relationship boundaries with others. An individual with thin boundaries may get enmeshed in a relationship, absorbing others' emotions, which may increase their stress. Individuals with thinner boundaries may have many friends; however, the relationships may not be deep and meaningful. An inference can be made that individuals with thicker boundaries may have developed the ability to have realistic dependence on others, or what some refer to as constructive dependence. These individuals do not need someone always by their side; however, these individuals understand when they might need support from someone and are effective in obtaining support. The current study did not investigate reasons as to why persons with thicker boundaries have higher levels of social support, and future investigations might explore whether the quality of attachments relationships in early childhood is related to this relationship.

From a Bowenian (1978) perspective, individuals with thicker boundaries can maintain contact with other individuals while also remaining self-differentiated. These individuals may also be

able to keep their own emotions separate from another. By staying separated from others' emotions these individuals may be better able to reflect upon others' thoughts and feelings. According to Bowen, differentiation is associated with a greater capacity to use cognition to reflect upon one's emotions, and use cognitions to guide decision-making.

The researcher of the current study can candidly state that the hypothesis for this particular research question was weak, insofar as it drew upon and attempted to indirectly connect loosely related empirical evidence from the previous literature (and was not based on Hartmann's suppositions, which even though they were more directly stated were not based in empirical evidence). Though the present hypothesis was not supported by the result in the case, there was a statistically significant and meaningful finding in the current study. Moreover, this finding aligns with Hartmann's (1991) supposition that individuals with thicker boundaries have a higher group identity that can be transmitted to social support, which lends further theoretical credence to its validity.

There are still open questions about the groups that thick and thin individuals gravitate to, and what type of support these individuals get from others. This will be further discussed in the Recommendations for Future Research section.

Research question three. Research question 3 examines the relationship between social support and self-esteem. The hypothesis for the research question was that social support predicts higher levels of self-esteem, which was based on numerous previous studies that have provided evidence of this relationship (e.g., Li et al., 2018). In this way, this research question served to replicate the previous research, while serving as a precursor step for the next research question. The results of the current study supported this hypothesis in that a significant, moderate-sized positive correlation was found between social support and self-esteem. Whereas

many studies investigating social support and self-esteem have been from countries outside of the United States (e.g., Goodwin & Plaza, 2000; Li et al., 2018), the current study took place in the United States.

Research question four. Research question 4 examined if mental boundaries moderate the statistically significant positive relationship between social support and self-esteem. There was no hypothesis for question 4, given that there is no identifiable research that addresses whether mental boundaries might moderate for self-esteem and social support. So, this was an exploratory question.

In previous research, there have been connections discovered between similar constructs such as openness and thin boundaries (McCrae, 1994) and a positive relationship between openness and self-esteem (Robins et al., 2001). Goodwin and Plaza (2000) noted that individuals with substantial levels of social support typically have higher levels of self-esteem. Given these linkages in the past literature and the potential practical benefits of understanding whether the well-established link between social support and self-esteem varies as a function of one's mental boundary thinness or thickness, the present work explored the possibility of this moderating effect. However, the results of this exploratory moderation analysis yielded non-significant findings. The findings suggest that the relationship between self-esteem and social support does not vary as a function of one's mental boundaries.

Limitations of the Study

There are multiple limitations that will be addressed. The limitations that pertain to the current study revolve around the utility of the BQ18, the population the sample was recruited from, and the lack of empirical research on the subject of the study.

The original BQ measure developed by Hartmann was designed to be used with a clinical population (Hartmann, 1991). All the participants in that scale construction study were seeking treatment or experienced maladaptive symptoms based on nightmares individuals were having. However, Kunzendorf et al.'s (1997) study developing the shortened BQ18 used a college sample. The selection of the 18 items for the BQ18 from the 138 item BQ was based on their face validity (as determined by the authors) and high correlation with total scores on the original BQ questionnaire (Kunzendorf et al., 1997). Though Kunzendorf et al. (1997) used a college sample and found some evidence of scale validity, the original items were not designed for college students and thus potentially lacked construct validity. The sample was also taken from one private university, was mainly female, and was not diverse. Gender may also play a role in the study; a more equal proportion of males to females may have improved the study.

Another limitation involves the design and validation of the BQ18. There is little empirical evidence validating how validly it measures mental boundaries beyond Kunzendorf et al.'s (1997) study. Moreover, very few details were stated in regard to Kunzendorf et al.'s (1997) design of the BQ18. For instance, the authors explained how items were chosen by face validity and high correlations between the BQ18 and the BQ (Kunzendorf et al., 1997). However, that is all the detail authors provide with regard to the validation of the BQ18. The authors also included that they gathered information from an unpublished study, though the study could not be located due to the authors' lack of citation.

Some issues can be acknowledged about the BQ18's item construction. Gehlbach (2015) describes different types of issues that are seen in survey design and how these issues can impact the validity of the survey. One issue is double-barreled questions, which ask more than one question at a time and leave a participant unsure of how to answer (Gehlbach, 2015). One item

that stands out in this regard on the BQ18 is, “I spend a lot of time daydreaming, fantasizing or in reverie.” Though the words “daydreaming,” “fantasizing,” and “reverie” in essence all have the same definition, participants that might be unsure of each of their meanings may end up answering the statement falsely.

The lack of a thorough validation process of the BQ18 brings into question this inventory’s psychometric soundness. The authors may have run a factor analysis on the inventory to understand the factor structure and how the items correlate with each other. The authors may have also correlated the BQ18 with inventories that measure similar and dissimilar constructs to report the convergent and discriminant validity of the BQ18.

In the current study, factor analysis was performed to explore the factor structure of the BQ18, in particular whether it functions properly as a unidimensional scale (which has been assumed in the previous research). The factor structure uncovered by these analyses was not unidimensional; the most likely solution is a two-factor structure, suggesting one “thin boundaries” factor and one “thick boundaries” factor.

The factor analysis brings up questions about what exactly the BQ18 is measuring. The current study went further into the design of the BQ18 and eliminated items that were worded as “thick,” and others that did not contribute to the reliability of the inventory. By doing so, 13 questions were left, which were all “thin” worded questions. This leaves the utility and structure of the BQ18 in question. An argument can be made that the BQ18 could potentially be measuring two distinct factors, thick and thin.

Based on the factor analysis of the BQ18 and the likely solution of a two-factor structure, moving forward with more scale development, a new scale could be developed that is explicitly designed to tap into two dimensions that explicitly measure thick and thin boundaries. It would

thus be advisable to have an equal number of thin and thick boundary questions, which would constitute two mental boundaries subscales. In doing so, it would be possible for an individual to not only have higher scores on the thin boundaries subscale and lower scores on the thick boundaries subscale (and vice versa), as is the case with the current unidimensional approach to measuring mental boundaries, but also a combination of scores across the two subscales that are high, low, or in the middle of both, or any combination thereof. The possibility of two-dimensional measurement of mental boundaries is ripe for future investigation.

However, the current study was constrained by only the existing items of the BQ18. The present factor analyses showed the BQ18 had two factors explaining 31.65% of the variance, but because only a small number of these items were thick boundaried and those items did not hold together well, it was not possible to create two valid subscales. The most psychometrically sound approach to measuring mental boundaries given the data collected was to create the unidimensional “BQ13,” which extracted one factor explaining 26.80% of the total variance. Notably, both the BQ18 and the “BQ13” explained variance that is well below the conventional cut-off of 60% (Tabachnick & Fidell, 2019), which suggests that there may be problems with the scales’ designs. These findings do suggest one way to improve the BQ18 is to reduce items to only those that are thin worded, which appears to reflect the measurement of a thin-thick dimension where the thickness end of the continuum represents the absence of thinness. However, the intention of the current research was not to put forth a new mental boundaries scale, but instead to explore the factor structure of the existing BQ18 and, if problematic, use the items of the existing scale in a more valid way. Addressing ways to create a sounder mental boundary inventory will be further discussed in the Recommendations for Future Research section.

Implications for Practice

The current study provides additional evidence that self-esteem and social support have a significant positive relationship ($r = .47$) with an effect size of $R^2 = .22$), which according to Cohen's (1992) classification is considered small. Further, the current research study used a sample of college-age students to understand the relationship between self-esteem and social support. In previous research, there have been implications for how self-esteem and social support can be used to promote college student's well-being. For example, Li et al. (2018) suggested that social support can be a vessel to strengthen self-esteem and to promote college student's quality of life (see also Kong et al., 2015; Pearson, 1986; Tahir et al., 2015). College counselors and other staff members might attend to students' self-esteem and social support when working to improve their overall wellbeing. For example, if a student is having difficulty adjusting to college, such as making friends or forming a group identity, those feelings can be processed with college counselors or staff. Professionals can assist students in developing strategies to form new friend groups or encourage them to draw on existing social support networks (such as keeping in touch with family). College students that have a secure attachment style report having more substantial and meaningful social supports (Anders & Tucker, 2000; Suri, Garg, & Tholia, 2019). Conversely, students with insecure attachment styles report fewer and less meaningful relationships (Anders & Tucker, 2000; Suri et al., 2019). At the most basic level, attachment theory suggests that individuals seek out social support from others. According to attachment theory, psychological health requires physically and emotionally supportive relationships (Bowlby, 1969).

Social support makes individuals feel connected valued, loved, and cared for (Wills, 1991), which is vital for daily functioning (Lakey & Orehek, 2011). Individuals with higher

social support also have better emotional and physical health (Bum & Jeon, 2016; Kong et al., 2015; Shumaker & Brownell, 1984). Persons with better emotional and physical health tend to have more contact and friendships with others, fewer mental health problems, lower mortality rate, and better ways to cope with stress (Bum & Jeon, 2016; Kong et al., 2015; Pearson, 1986). Higher social support also helps combat feelings of loneliness (Sergin & Passalacqua, 2010).

The results of this study highlight the importance of social support on college students' wellbeing. This finding is consistent with previous research that reveals the connection between social support and self-esteem among college students (Denenny et al., 2015; Li et al., 2018; Goodwin & Plaza, 2000; Vogel et al., 2006).

One way to promote social support, which in turn is likely to enhance self-esteem, is to help students develop secure connection and attachment style. Secure attachment develops when there is a clear sense of safety and trust within the relationship (Bowlby, 1969). Having a secure attachment style or a systematic engagement strategy is connected to positive mental health attributes and overall wellbeing (Mikulincer & Shaver, 2016). By developing a more secure attachment style, students are likely to gain a stronger sense of belonging, higher stress tolerance, and higher levels of self-esteem (Jurtist & Meehan, 2009).

In order to address attachment movement, college counselors can turn to positive attachment change. More commonly known as “earning security”, positive attachment change acknowledges the dysfunction that brought about insecure attachment in childhood, and actively works against it to create a secure attachment in adulthood (Hesse, 2008). Johnson and Whiffen (1999) address positive attachment change in a college counseling setting. Promoting this change requires the development of a more flexible cognitive model of attachment. Cognitive, or working, models of attachment focus on the relationship between self-perception and

expectations of others. How one views themselves has an impact on what and how much they expect of those around them. (Johnson & Wiffen, 1999). Cognitive models of attachment work as scripts, detailing a specific set of guidelines for interpersonal interactions. (Johnson & Wiffen, 1991). In other words, former attachment relationships inform current rules of engagement. It is these working models that act as an internal representation of the self with others. (Johnson & Wiffen, 1999).

While working with cognitive models, it also helps to find new coping and communication skills to enhance a healthier attachment with others (Olufowote, Fife, Schleiden, & Whiting, 2019). Counselors can encourage students to explore these skills with specific supportive relationships in their lives (Olufowote et al., 2019). The results of this study tentatively suggest that increasing students' mental boundaries may result in the ability to obtain social support. Specifically, these findings can inform the practice of college personnel, such as college counselors and other student affairs professionals. Outreach programs designed to inform students about the importance of connecting with peers can benefit self-esteem and general well-being. Additionally, counseling and student affairs programs may want to incorporate more training addressing the importance of social support and self-esteem.

There are limited counseling theories that explicitly integrate mental boundaries. Given the significant findings regarding the role of mental boundaries in self-esteem and social support, the current study implicates the importance of incorporating mental boundaries into the helping profession. Hartmann (1997) expressed that understanding an individuals' mental boundaries can be used as an educational tool to promote clients' self-awareness. Clients can develop awareness regarding the thickness of their boundaries, important aspects of their lives, and the implications of these boundaries.

Mental boundaries have an influence on specific behaviors in an individual. In simply understanding thick and thin boundaries, clients are more readily able to recognize those behaviors and areas of growth. When paying attention, a client that has thinner mental boundaries may be more aware of the challenge of separating thoughts and emotions. Being able to recognize adversity can help identify and separate problematic emotions or thoughts. As with anything, acknowledging and understanding a problem is the first step toward resolution. Based on this current study, individuals with thinner mental boundaries have less social support. Should those thin boundaried individuals grow to understand their lack of connection as a product of mental boundaries, they may find themselves empowered to make a change. On the other hand, individuals with thicker mental boundaries tend to be more rigid and structured. With this in mind, counselors and clients can work to implement coping strategies for inevitable change. As the current study shows, these thicker boundaried individuals have higher social support. In understanding the role of mental boundaries in relationships, we reinforce those thicker boundaries as a means to positive social interaction. Whether an individual has thick boundaries, thin boundaries, or somewhere in between, the present study has implications for quality of life. While these boundaries do not guarantee a certain level of social support, the connection is certainly worth noting. Regardless of boundary status, knowing and acknowledging one's mental boundaries can be a starting point for healthy change.

Hartmann (1997) suggested that mental boundaries can be used as a tool to match counselors and clients. For instance, a client that has relatively thin boundaries may benefit from working with a counselor with relatively thick boundaries. A client with thinner boundaries is more likely to have unrealistic goals in counseling, while a counselor with thicker boundaries can help make those goals more realistic (Hartmann, 1997). Working with thicker boundaried

clients creates space for the development of the counselor's mental boundaries as well. In developing thicker boundaries, counselors are better able to separate the client's emotions from their own, an essential skill for effective counseling.

Another way that clinicians may work with individuals with thinner boundaries is through value exploration. The purpose of value exploration is to develop a better sense of self. For those with thin boundaries, a better sense of self can lead to higher levels of connectedness. Card sorts are often used in the career counseling field to help clients explore their experiences, expectations, and values of work (Esquible, Nicholson, & Murdock, 2014). However, this type of exploratory intervention may be used when looking at the client's personal values. A card sort allows for a better understanding of who the client is, where they belong, and how they see themselves. A significant characteristic of individuals with thicker boundaries is having a stronger sense of group belonging. A card sort can be used in counseling for individuals with thinner boundaries to help realize that their relationships tend to be superficial, and consider pursuing the development of more genuine, intimate relationships.

Dialectical behavioral therapy (DBT) was developed by Marsha Linehan and colleagues to work with individuals with Borderline personality disorder. The main goals of DBT are to teach individuals how to live in the present moment, regulate emotions, improve relationships with others, and cope with stress in a healthy manner (Linehan, 1993). When discussing ways to help individuals develop thicker boundaries, the notion of the "wise mind" can be taught.

DBT posits that there are three primary states of mind (Linehan, 1993). There is a "reasonable mind" where individuals approach situations intellectually and make decisions based on facts. There is the "emotional mind" where feelings control an individual's thoughts and behaviors. Lastly, there is the "wise mind," which is a balance between the reasonable and

emotional mind. Here individuals can recognize feelings while responding to them in a rational way (Linehan, 1993).

When understanding mental boundaries from a DBT perspective, the “wise mind” acts a balance between thick and thin boundaries. The “emotional mind” most closely resembles an individual with thin boundaries, as in both cases the individual is more emotionally driven. The “reasonable mind” resembles a person with thick boundaries because these individuals use concrete facts when making decisions. In order to address the emotional reasoning of thin boundaries, and the over rationalism of thick boundaries, a counselor may want to discuss ways to move someone toward the “wise mind.”

Another hallmark of DBT is mindfulness training. Mindfulness requires nonjudgmentally focusing on thoughts, feelings, and experiences in the present moment. Many mindfulness techniques encompass some sort of meditation, encouraging individuals to think about a situation where only either the “reasonable mind” was used, or the “emotional mind” was used. Recognizing the role of both minds promotes control over the way that an individual may react or think about that situation. Another vital part of the “wise mind” is a skill referred to as “radical acceptance” (Linehan, 1993). Radical acceptance is the ability to tolerate something without judging it or changing it (Linehan, 1993). The use of DBT techniques encourage awareness of thoughts and feelings in the present moment without judgment or criticism, ultimately creating a space for the “wise mind” to thrive.

DBT may also be useful for enhancing students’ social supports. DBT emphasizes skills to decrease toxic relationship interfering behaviors and increase healthy patterns to improve quality of life (Linehan, 1993). DBT focuses on mindfulness, interpersonal effectiveness, emotion regulation, and distress tolerance (Linehan, 1993). When used appropriately,

mindfulness skills help students observe and describe their experiences. In noticing behaviors and thoughts, students must face the effect they have on the world around them, including interpersonal relationships. Interpersonal effectiveness can help students learn more social problem-solving skills. This development of social problem-solving skills can enhance the ability to make more reliable connections with others. With emotion regulation, students may also enhance the relationship between mood and self. This, in turn, may enhance relationships with others, making connections easier and more natural. Lastly, students can learn distress tolerance skills to focus on the acceptance and management of tough, unchangeable situations. When stress inevitably comes, social supports play an important role in tolerating the present moment. Developing the skills to form connections has a positive effect on an individual's ability to tolerate stress.

Another form of therapy that may be inclined to help thicken individuals' mental boundaries is Emotion-focused therapy (EFT). The premise of EFT is that emotion is foundational in the making of the self and is a crucial figure in self-organization (Greenberg, 2004). Three principles that define EFT are emotion awareness, emotion regulation, and transforming emotion (Greenberg, 2004).

In EFT treatment, the goal for clients is to become more aware of their primary emotions and, more specific to their primary adaptive emotions (Greenberg, 2004). The first step in emotional awareness is being able to accept the emotion rather than avoid it (Greenberg, 2004). By being able to accept emotions helps the client utilize the emotion and to improve ways of coping with certain emotions (Greenberg, 2004). When working with a client's mental boundaries, especially an individual that has thinner boundaries, EFT can be used to help a client understand their emotions better. By being able to help clients be aware of emotions, they might

be avoiding, can help clients find more adaptive ways to deal with that emotion instead of letting an emotion disrupt their day.

Emotional regulation is also an essential aspect of EFT. With emotion regulation, clients also learn how to tolerate certain emotions as well as self-soothe when need be (Greenberg, 2004). By way of regulating emotions and self-soothing can help calm a client down and not let certain emotions take over their thinking. Utilizing emotion regulation with clients that have thinner boundaries can help clients find ways to reduce negative emotions or emotions that cannot be separated from other parts of thinking. By doing so, clients can learn their own techniques to help strengthen their own coping mechanisms to help combat a high emotional state, and in turn, help a client think more rationally.

One of the most essential principles of EFT is the transformation of one emotion into another. Emotion transformation suggests that a maladaptive emotional state can be transformed by using a more adaptive emotion (Greenberg, 2004). For example, an individual that feels worthless because they failed a test in college, can transform the feeling of worthlessness to a more adaptive emotion such as motivation to want to study harder for the next exam. When a therapist is working with an individual that at times feels like their emotions define them can help transform those negative emotions into more positive ones. Individuals that struggle with emotions or feel defined by them have thinner boundaries. By being able to change the emotion can help thicken their boundaries because that emotion will no longer be maladaptive but adaptive and better for their overall functioning.

Recommendations for Future Research

This current research study fills some gaps in the mental boundaries literature; however, there are still numerous research questions that need to be addressed.

Scale development. Firstly, there are still some uncertainties about the overall design of the BQ18. Because the BQ18 is the only known mental boundary inventory (aside from the cumbersome original BQ measure) that was developed decades ago, there is room for updating and improvement, such as including more modern language. The BQ18 has many questions that can be somewhat challenging to interpret. Using straightforward language and short questions or statements would make a new inventory more precise, easy to follow, and easy to understand.

Additionally, validation testing with non-clinical samples (such as college students) would be helpful toward assessing more diverse populations and using the scale more widely. The original BQ was first used for nightmare sufferers (Hartmann, 1991); Kunzendorf et al. (1997) created the BQ18 for the same purpose, but with fewer questions. These scale development efforts may have been restricted in terms of the intended scope of assessment or item wording. Though the BQ and BQ18 were created to measure the concept of mental boundaries based on nightmares and dreams, the present work shows the potential for the concept of mental boundaries to be utilized in broader clinical settings such as college counseling centers.

As noted earlier, one potentially more valid approach would be to develop a new inventory that assesses thinness only, on a unidimensional scale. With this approach, a scale would be developed only using thin-worded items, and being high in thick boundaries would be represented by low scores. Alternately, a new inventory could be developed that has two distinct factors that are thin and thick. Ideally, the items of this scale would be constructed to create a two-factor structure, representing two dimensions of mental boundaries, thick and thin. To make a new scale clean and clear, ideally there would be the same number of thin boundary questions as thick boundary questions.

One example of a two-dimensional inventory that may be similar is the Positive and Negative Affect Schedule (PANAS). The PANAS scale uses 10 items for two subscales, one measuring positive affect and the other negative affect (Watson, Clark, & Tellegen, 1988). The development of the PANAS may provide insights into the development of a two-dimensional mental boundaries scale that measures both thick and thin boundaries. Given the potentially problematic nature of the wording of at least some of the BQ18 items uncovered in the present study, a new scale development should involve the generation of an entirely new set of mental boundary items. These new questions may resemble the structure of the PANAS by having 10 clear statements about thick mental boundaries and 10 clear statements about thin mental boundaries.

The use of mental boundaries in the context of therapy and wellness. Previous to this study, there was no direct evidence that mental boundaries were related either to self-esteem or social support. Hartmann (1997) had suppositions about how mental boundaries connect to self-esteem, but there was no empirical evidence. More applied research can be done to construct new ways of working with mental boundaries and the relationship to self-esteem and social support.

One potential area of further examination is how mental boundaries play a role in an individual's overall mental health and wellbeing, as was suggested (but never empirically investigated) by Hartmann (1991). For instance, Hartmann (1991) suggested that individuals with thick mental boundaries could be viewed as “having on a suit of armor,” since he felt they were less likely to get ill. He believed this to be the case because he thought thick-boundaried people are more likely to adopt a mindset of “I do not get sick” or “I am too tough to get sick,” and that this mindset could be transmitted into physical parts of the body. Granted, there has

been no empirical evidence to support Hartmann's idea of how mental boundaries can contribute to the overall health of an individual. However, Hartmann's thoughts are very much relatable to psychosomatic and psychophysiological aspects of illness, though more research would need to be conducted to investigate this claim.

The current study may also instigate more ideas about what type of research would be beneficial in the counseling field. As stated in the Implications for Practice section, mental boundaries may have an impact on how clinicians work with individuals. The counseling field would benefit from research investigating techniques clinicians can use when working with individuals with different mental boundaries.

A straightforward and simple approach to working with mental boundaries in the counseling setting could involve using one's boundaries a tool for positive change. For example, a thick-boundaries client who expresses having a hard time following routines or adapting to an unexpected change may be more inclined to feel his or her whole world is crumbling. A suggestion for working with this client might be to psychoeducate him or her about thin mental boundary characteristics and approaches to implementing those characteristics, such as being able to talk about how to be alright with plans not going the way you want them to and adapting to change. Another example might be when working with an individual with low self-esteem, a counselor could suggest ways that characteristics of thick mental boundaries can be incorporated in the client's life to give a self-esteem boost.

The use of mental boundaries in the context of counseling might also be of use in area of developmental theories. Mental boundaries may be used to help understand the developmental process of people. For example, a study could be done about age and individuals' mental boundaries. Examining if over time mental boundaries change or adapt when an individual gets

older. By using mental boundaries as a developmental tool may open more research opportunities to help clinicians have a better understanding of their clients and how to work with them. Mental boundaries may also be a tool to help more individuals' mental boundaries types in different directions depending on issues that they are having. With a developmental perspective there could be more research done on state/trait distinction of mental boundaries if mental boundaries were to be used as a source of development.

There is still the lingering question of whether, overall, it is better to have thick or thin mental boundaries. Hartmann (1991) suggests that having a balance between thick and thin mental boundaries may be the healthiest. Granted, there has not been any other research conducted on what balanced mental boundaries look like, but one would assume that there may be an optimal mental boundary structure. This is another area ripe for future research.

A new theory at large. Hartmann (1991) is responsible for the creation of boundaries in the mind as a new view of personality. As stated in chapter 2, many other theorists have explored the underlying elements of this construct as well, such as Freud's (1923) and Federn's (1952) work on ego boundaries, Landis's (1970) work on permeable and impermeable boundaries, and Rokeach's (1960) work on open and closed systems. Indeed, all of the theorists working in this area have contributed valuable information and new ways of viewing how individuals feel and behave.

The only established counseling approach that integrates aspects of Hartmann's theory of mental boundaries into clinical practice is psychoanalysis, though mental boundaries are not central in this practice. In an effort to extend the present research into the clinical domain, a new therapeutic approach to counseling is warranted. This approach could be named "Boundary Therapy," or "BT" for short. BT could be developed from the characteristics that Hartmann

(1991) suggests for individuals with thin and thick mental boundaries. Ernest Hartmann was trained in psychoanalysis, and much of the language he used when describing mental boundaries was rooted in that approach. BT could focus on more up-to-date and postmodern concepts of counseling. One way of thinking about BT would be an integrated mixture of counseling theories that make up an entirely new way of working with mental boundaries. Future theoretical work on this idea could help the field realize the potential benefits of integrating mental boundaries into clinical practice.

In the current study, mental boundaries were found to have a significant relationship with self-esteem and social support, and future research examining how individuals' mental boundaries operate with regard to these constructs may be useful for clinicians working with individuals in the context of therapy. For example, imagine a counselor is working with a person struggling with self-esteem issues. Based on the current research study, individuals that have lower self-esteem on average have thinner mental boundaries. By knowing that information, a clinician may then be able to work on ways to thicken an individual's mental boundaries, such as techniques on being assertive or standing up for themselves.

A follow up study to the current study might examine the difference between the years in college and an individual's mental boundaries type. The current study did not focus on how many years a student was in college. Being able to examine a student's years in school may show differences that may be developmental such as age and maturity.

Summary of the Current Study

In summary, the present work demonstrates how mental boundaries, self-esteem, and social support interrelate. The current work shows that social support and self-esteem are positively significantly related, and add more support to past research on the relationship

between these constructs. The current work also provides significant findings regarding mental boundaries in relation to social support and self-esteem. Even though the findings ran contrary to the hypotheses, there is now empirical data that shows that mental boundaries, social support, and self-esteem have a relationship. These findings warrant more research in those areas, which in turn can produce more knowledge about the constructs themselves, and further be investigated with regard to college students' wellbeing. However, the current work did not provide evidence that mental boundaries moderate the relationship between social support and self-esteem.

Moreover, though not a primary objective of the study, the current work has been a vessel to investigate the psychometrics of the BQ18. In doing so, it was suggested that there can be multiple enhancements to the inventory, perhaps warranting the development of a new scale that can help measure mental boundaries more simply and clearly.

The current work also endeavored to connect mental boundaries to the counseling field. The current work builds upon suggestions from previous research to offer potential pathways for incorporating mental boundaries into clinical practice. The suggestions may not involve theory development per se, and certainly further empirical research is necessary to better understand the potential effectiveness of working with mental boundaries in practice; however, these suggestions may at least present a starting point for clinicians to consider incorporating.

One hoped-for takeaway from the current work is to reinvigorate the development a construct that has not been examined for more than a decade. Though for some, the idea of incorporating more psychological factors into the counseling field may sound either threatening to or diluting of the development of counseling and counselor education. However, an alternate perspective might be that counseling and counselor education can and should be more integrated

and synergistic with broader psychological constructs and theory. The helping professions, it would seem, are all made stronger by being more united.

References

- Ainsworth, M. D. S. (1979). Infant–mother attachment. *American Psychologist, 34*, 932–937.
- Ainsworth, M. S. (1989). Attachments beyond infancy. *American Psychologist, 44*, 709–716.
doi: 10.1037//0003-066x.44.4.709
- Anders, S. L., & Tucker, J. S. (2000). Adult attachment style, interpersonal communication competence, and social support. *Personal Relationships, 7*, 379–389.
- Arshad, M., Zaidi, S. M. I. H., & Mahmood, K. (2015). Self-esteem & academic performance among university students. *Journal of Education and Practice, 6* (1), 156–162.
- Aumann, C., Lahl, O., & Pietrowsky, R. (2012). Relationship between dream structure, boundary structure and the Big Five personality dimensions. *Dreaming, 22*, 124–135. doi: 10.1037/a0028977
- Barbuto, J. E., & Plummer, B. A. (1998). Mental boundaries as a new dimension of personality: A comparison of Hartmann's boundaries in the mind and Jung's psychological types. *Journal of Social Behavior and Personality, 13*(3), 421–436.
- Berant, E., & Wald, Y. (2009). Self-reported attachment patterns and Rorschach-related scores of ego boundary, defensive processes, and thinking disorders. *Journal of Personality Assessment, 91*, 365–372. doi: 10.1080/00223890902936173
- Bettencourt, B. A., Charlton, K., Eubanks, J., Kernahan, C., & Fuller, B. (1999). Development of collective self-esteem among students: Predicting adjustment to college. *Basic and Applied Social Psychology, 21*, 213–222. doi: 10.1207/s15324834basp2103_5
- Blatt, S. J., & Ritzler, B. A. (1974). Thought disorder and boundary disturbances in psychosis. *Journal of Consulting and Clinical Psychology, 42*, 370–381. doi: 10.1037/h0036688

- Bowen, M. (1978). *Family therapy in clinical practice*. New York, NY: Jason Aronson.
- Bowlby, J. (1969). *Attachment and loss: Volume I: Attachment*. New York: Basic Books.
- Bowlby, J. (1973). *Attachment and loss: Volume II. Separation: Anxiety and anger*. New York: Basic.
- Bowlby, J. (1980). *Attachment and loss: Volume III. Loss*. New York: Basic Books.
- Bum, C.-H., & Jeon, I.-K. (2016). Structural relationships between students' social support and self-esteem, depression, and happiness. *Social Behavior and Personality: An International Journal*, *44*, 1761–1774. doi: 10.2224/sbp.2016.44.11.1761
- Campbell, J. D. (1990). Self-esteem and clarity of the self-concept. *Journal of Personality and Social Psychology*, *59*(3), 538–549.
- Canty-Mitchell, J., & Zimet, G. D. (2000). Psychometric properties of the Multidimensional Scale of Perceived Social Support in urban adolescents. *American Journal of Community Psychology*, *28*, 391–400. doi: 10.1023/a:1005109522457
- Celenza, A. (1991). The misuse of countertransference love in sexual intimacies between therapists and patients. *Psychoanalytic Psychology*, *8*, 501–509. doi: 10.1037/0736-9735.8.4.501
- Cicero, D. C., & Kerns, J. G. (2010). Is paranoia a defense against or an expression of low self-esteem? *European Journal of Personality*, *25*, 326–335. doi: 10.1002/per.794
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155–159. doi: 10.1037/0033-2909.112.1.155
- Costa, P. T., McCrae, R. R., & Dye, D. A. (1991). Facet scales for agreeableness and conscientiousness: A revision of the NEO Personality Inventory. *Personality and Individual Differences*, *12*, 887–898. doi: 10.1016/0191-8869(91)90177-d

- Crocker, J., & Luhtanen, R. K. (2003). Level of self-esteem and contingencies of self-worth: Unique effects on academic, social, and financial problems in college students. *Personality and Social Psychology Bulletin*, *29*, 701–712. doi: 10.1177/0146167203029006003
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, *96*, 608–630. doi: 10.1037//0033-295x.96.4.608
- Crocker, J., Karpinski, A., Quinn, D. M., & Chase, S. K. (2003). When grades determine self-worth: Consequences of contingent self-worth for male and female engineering and psychology majors. *Journal of Personality and Social Psychology*, *85*, 507–516. doi: 10.1037/0022-3514.85.3.507
- Crocker, J., Luhtanen, R. K., Cooper, M. L., & Bouvrette, A. (2003). Contingencies of self-worth in college students: Theory and measurement. *Journal of Personality and Social Psychology*, *85*, 894–908. doi: 10.1037/0022-3514.85.5.894
- Crocker, J., Luhtanen, R., Blaine, B., & Broadnax, S. (1994). Collective self-esteem and psychological well-being among White, Black, and Asian college students. *Personality and Social Psychology Bulletin*, *20*, 503–513. doi: 10.1177/0146167294205007
- Dansby Olufowote, R. A., Fife, S. T., Schleiden, C., Whiting, J. B. (2019). How Can I Become More Secure?: A Grounded Theory of Earning Secure Attachment. *Journal of Marital and Family Therapy*, *00*, 1–18. doi: 10.1111/jmft.12409
- Demo, D. H., & Parker, K. D. (1987). Academic achievement and self-esteem among Black and White college students. *The Journal of Social Psychology*, *127*, 345–355. doi: 10.1080/00224545.1987.9713714

- Denenny, D., Thompson, E., Pitts, S. C., Dixon, L. B., & Schiffman, J. (2015). Subthreshold psychotic symptom distress, self-stigma, and peer social support among college students with mental health concerns. *Psychiatric Rehabilitation Journal*, *38*, 164–170. doi: 10.1037/prj0000124
- Derogatis, L. R., Lipman, R. S., Rickels, K., Uhlenhuth, E. H., & Covi, L. (1974). The Hopkins Symptom Checklist (HSCL): A self-report symptom inventory. *Behavioral Science*, *19*, 1–15. doi: 10.1002/bs.3830190102
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, *55*, 34–43. doi: 10.1037/0003-066x.55.1.34
- Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology*, *68*, 653–663. doi: 10.1037/0022-3514.68.4.653
- Diener, E., Oishi, S., & Lucas, R. E. (2015). National accounts of subjective well-being. *American Psychologist*, *70*(3), 234–242.
- Dixon, S. K., & Kurpius, S. E. R. (2008). Depression and college stress among university undergraduates: Do mattering and self-esteem make a difference? *Journal of College Student Development*, *49*, 412–424. doi: 10.1353/csd.0.0024
- Donnellan, M. B., Trzesniewski, K. H., & Robins, R. W. (2015). Measures of self-esteem. *Measures of Personality and Social Psychological Constructs*, 131–157. doi: 10.1016/b978-0-12-386915-9.00006-1
- Dunning, D., Leuenberger, A., & Sherman, D. A. (1995). A new look at motivated inference: Are self-serving theories of success a product of motivational forces? *Journal of Personality and Social Psychology*, *69*, 58–68. doi: 10.1037/0022-3514.69.1.58

- Eisenbarth, C. (2012). Does self-esteem moderate the relations among perceived stress, coping, and depression? *College Student Journal*, *46*, 149–157.
- Emadpoor, L., Lavasani, M. G., & Shahcheraghi, S. M. (2016). Relationship between perceived social support and psychological well-being among students based on mediating role of academic motivation. *International Journal of Mental Health and Addiction*, *14*, 284–290. doi: 10.1007/s11469-015-9608-4
- Emmons, R. A., & Diener, E. (1986). Influence of impulsivity and sociability on subjective well-being. *Journal of Personality and Social Psychology*, *50*, 1211–1215. doi: 10.1037//0022-3514.50.6.1211
- Emmons, R. A., Diener, E., & Larsen, R. J. (1985). Choice of situations and congruence models of interactionism. *Personality and Individual Differences*, *6*, 693–702. doi: 10.1016/0191-8869(85)90080-7
- Epstein, S. (1973). The self-concept revisited: Or a theory of a theory. *American Psychologist*, *28*, 404–416. doi: 10.1037/h0034679
- Esquibel, J. A., Nicholson, B., & Murdock, J. (2014). Understanding the impact of career values on career satisfaction: Utilizing card sorts in career counseling. *Career Planning and Adult Development Journal*, *30*, 234–246.
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*, 1149–1160. doi: 10.3758/brm.41.4.1149
- Federn, P. (1952). *Ego psychology and the psychoses*. London: Imago.
- Ferkany, M. (2008). The educational importance of self-esteem. *Journal of Philosophy of Education*, *42* 119–132. doi: 10.1111/j.1467-9752.2008.00610.x

- Fisher, S., & Cleveland, S. E. (1968). *Body image and personality*. New York: Dover Publ.
- Fleming, J. S., & Courtney, B. E. (1984). The dimensionality of self-esteem: II. Hierarchical facet model for revised measurement scales. *Journal of Personality and Social Psychology, 46*, 404–421. doi: 10.1037//0022-3514.46.2.404
- Freud, S. (1923). *The ego and the id*. In The standard edition of the complete psychological works of Sigmund Freud, Vol. 19 (pp. 3–66). London: Hogarth Press.
- Gehlbach, H. (2015). Seven survey sins. *The Journal of Early Adolescence, 35*, 883–897. doi: 10.1177/0272431615578276
- González, L. F., Hernández, A. G., & Torres, M. T. (2015). Relationships between academic stress, social support, optimism-pessimism and self-esteem in college students. *Electronic Journal of Research in Education Psychology, 13*(35), 111–130.
- Goodwin, R., & Plaza, S. H. (2000). Perceived and received social support in two cultures: Collectivism and support among British and Spanish students. *Journal of Social and Personal Relationships, 17*, 282–291. doi: 10.1177/0265407500172007
- Greenberg, L. S. (2004). Emotion–focused therapy. *Clinical Psychology & Psychotherapy: An International Journal of Theory & Practice, 11*, 3–16.
- Harrison, A. J., & Singer, J. A. (2010). Differentiating religiousness and spirituality through boundaries of the mind and daydreaming styles. *Imagination, Cognition and Personality, 29*, 323–339. doi: 10.2190/ic.29.4.d
- Harrison, R. H., Hartmann, E., & Bevis, J. (2006). The Boundary Questionnaire: Its preliminary reliability and validity. *Imagination, Cognition and Personality, 25*, 355–382. doi: 10.2190/8120-6340-t808-7001

- Hartmann, E. (1976). Discussion of the changing use of dreams in psychoanalytic practice: The dream as a “royal road” to the biology of the mental apparatus. *The International Journal of Psycho-Analysis*, 57(3), 331–334.
- Hartmann, E. (1984). *The nightmare: The psychology and biology of terrifying dreams*. New York, NY: Basic Books.
- Hartmann, E. (1989). Boundaries of dreams, boundaries of dreamers: Thin and thick boundaries as a new personality measure. *Psychiatric Journal of the University of Ottawa*, 14(4), 557–560.
- Hartmann, E. (1991). *Boundaries in the mind: A new psychology of personality*. New York, NY: Basic Books.
- Hartmann, E. (1997). The concept of boundaries in counselling and psychotherapy. *British Journal of Guidance & Counselling*, 25, 147–162. doi: 10.1080/03069889708253798
- Hartmann, E., Harrison, R., & Zborowski, M. (2001). Boundaries in the mind: Past research and future directions. *North American Journal of Psychology*, 3(3), 347–368.
- Hartmann, E., Rosen, R., & Rand, W. (1998). Personality and dreaming: Boundary structure and dream content. *Dreaming*, 8, 31–39. doi: 10.1023/b:drem.0000005913.21794.1f
- Hartmann, E., Russ, D., Van der Kolk, B., Falke, R., & Oldfield, M. (1981). A preliminary study of the personality of the nightmare sufferer: Relationship to schizophrenia and creativity? *The American Journal of Psychiatry*, 138, 794–797. doi: 10.1176/ajp.138.6.794
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling. Retrieved from <http://www.afhayes.com/public/process2012.pdf>

- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, *52*, 511–524. doi: 10.1037//0022-3514.52.3.511
- Heatherton, T. F., & Polivy, J. (1991). Development and validation of a scale for measuring state self-esteem. *Journal of Personality and Social Psychology*, *60*, 895–910. doi: 10.1037//0022-3514.60.6.895
- Heatherton, T. F., & Wyland, C. L. (2003). Assessing self-esteem. *Positive Psychological Assessment: A Handbook of Models and Measures.*, 219–233. doi: 10.1037/10612-014
- Hesse, E. (2008). The Adult Attachment Interview: Protocol, method of analysis, and empirical studies. In J. Cassidy & P. R. Shaver (Eds.), *The handbook of attachment: Theory, research and clinical applications* (pp. 552–598). New York, NY: The Guilford Press.
- Hiel, A. V., & Mervielde, I. (2004). Openness to experience and boundaries in the mind: Relationships with cultural and economic conservative beliefs. *Journal of Personality*, *72*, 659–686. doi: 10.1111/j.0022-3506.2004.00276.x
- Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *Journal of Applied Psychology*, *92*, 1332–1356. doi: 10.1037/0021-9010.92.5.1332
- Ikiz, F. E., & Cakar, F. S. (2010). Perceived social support and self-esteem in adolescence. *Procedia - Social and Behavioral Sciences*, *5*, 2338–2342. doi: 10.1016/j.sbspro.2010.07.460
- James, W. (1890). *The principles of psychology*, Vol. 2. NY, US: Henry Holt and Company.
- James, W. (1907). *Pragmatism: A new name for some old ways of thinking*. New York: Washington Square Press.

- Johnson, S. M., & Whiffen, V. E. (1999). Made to measure: Adapting emotionally focused couple therapy to partners' attachment styles. *Clinical Psychology Science and Practice, 6*, 366–381. doi: 10.1093/clipsy.6.4.366
- Jurist, E. L., & Meehan, K. B. (2009). Attachment, mentalization, and reflective functioning. In J. H. Obegi & E. Berant (Eds.), *Attachment theory and research in clinical work with adults* (p. 71–93). The Guilford Press.
- Kerr, M. E., & Bowen, M. (1988). *Family evaluation*. New York, NY: W. W. Norton.
- Kong, F., Ding, K., & Zhao, J. (2015). The relationships among gratitude, self-esteem, social support and life satisfaction among undergraduate students. *Journal of Happiness Studies, 16*, 477–489. doi: 10.1007/s10902-014-9519-2
- Kunzendorf, R. G., Hartmann, E., Cohen, R., & Cutler, J. (1997). Bizarreness of the dreams and daydreams reported by individuals with thin and thick boundaries. *Dreaming, 7*, 265–271. doi: 10.1037/h0094482
- Kwan, V. S. Y., Bond, M. H., & Singelis, T. M. (1997). Pancultural explanations for life satisfaction: Adding relationship harmony to self-esteem. *Journal of Personality and Social Psychology, 73*, 1038–1051. doi: 10.1037//0022-3514.73.5.1038
- Lakey, B., & Orehek, E. (2011). Relational regulation theory: A new approach to explain the link between perceived social support and mental health. *Psychological Review, 118*, 482–495.
- Landis, B. (1970). Ego boundaries. *Psychological Issues, 6*(4), 1–172.
- Levin, R., Galin, J., & Zywiak, B. (1991). Nightmares, boundaries, and creativity. *Dreaming, 1*(1), 63–74.

- Levin, R., Gilmartin, L., & Lamontanaro, L. (1998). Cognitive style and perception: The relationship of boundary thinness to visual-spatial processing in dreaming and waking thought. *Imagination, Cognition and Personality, 18*, 25–41. doi: 10.2190/4gbv-wayq-10yr-rgcb
- Lewin, K. (1936). *Principles of topological psychology*. New York, NY: McGraw-Hill.
- Li, J., Han, X., Wang, W., Sun, G., & Cheng, Z. (2018). How social support influences university students' academic achievement and emotional exhaustion: The mediating role of self-esteem. *Learning and Individual Differences, 61*, 120–126. doi: 10.1016/j.lindif.2017.11.016
- Lilienfeld, S. O., Wood, J. M., & Garb, H. N. (2000). The scientific status of projective techniques. *Psychological science in the public interest, 1*(2), 27–66.
- Linehan, M.M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford Press.
- Mar, R. A., Deyoung, C. G., Higgins, D. M., & Peterson, J. B. (2006). Self-liking and self-competence separate self-evaluation from self-deception: Associations with personality, ability, and achievement. *Journal of Personality, 74*, 1047–1078. doi: 10.1111/j.1467-6494.2006.00402.x
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224–253. doi: 10.1037/0033-295x.98.2.224
- Marsh, H. W. (1990). Influences of internal and external frames of reference on the formation of math and English self-concepts. *Journal of Educational Psychology, 82*, 107–116. doi: 10.1037//0022-0663.82.1.107

- Mccrae, R. R. (1994). Openness to experience: Expanding the boundaries of factor V. *European Journal of Personality*, 8, 251–272. doi: 10.1002/per.2410080404
- Megivern, D., Pellerito, S., & Mowbray, C. (2003). Barriers to higher education for individuals with psychiatric disabilities. *Psychiatric Rehabilitation Journal*, 26, 217–231. doi: 10.2975/26.2003.217.231
- Merianos, A. L., Nabors, L. A., Vidourek, R. A., & King, K. A. (2013). The impact of self-esteem and social support on college students' mental health. *American Journal of Health Studies*, 28(1), 27-34.
- Mikulincer, M., & Shaver, P. R. (2016). Adult attachment and emotion regulation. *Handbook of attachment: Theory, research, and clinical applications*, 3, 507–533.
- Myers, I. B. (1962). *Manual: The Myers-Briggs Type Indicator*. Princeton, NJ: Educational Testing Service.
- Norbeck, J. S., Lindsey, A. M., & Carrieri, V. L. (1981). The development of an instrument to measure social support. *Nursing Research*, 30, 264–269. doi: 10.1097/00006199-198109000-00003
- Norbeck, J. S., Lindsey, A. M., & Carrieri, V. L. (1983). Further development of the Norbeck Social Support Questionnaire: Normative data and validity testing. *Nursing Research*, 32, 4–9.. doi: 10.1097/00006199-198301000-00002
- Pearson, J. E. (1986). The definition and measurement of social support. *Journal of Counseling & Development*, 64, 390–395. doi: 10.1002/j.1556-6676.1986.tb01144.x
- Pedersen, M. J., & Nielsen, C. V. (2016). Improving survey response rates in online panels. *Social Science Computer Review*, 34, 229–243. doi: 10.1177/0894439314563916

- Phinney, J. S., Chavira, V., & Williamson, L. (1992). Acculturation attitudes and self-esteem among high school and college students. *Youth & Society, 23*, 299–312. doi: 10.1177/0044118x92023003002
- Robins, R. W., Hendin, H. M., & Trzesniewski, K. H. (2001). Measuring global self-esteem: Construct validation of a single-item measure and the Rosenberg Self-Esteem. *Personality and Social Psychology Bulletin, 27*, 151–161. doi: 10.1177/0146167201272002
- Robins, R. W., Tracy, J. L., Trzesniewski, K., Potter, J., & Gosling, S. D. (2001). Personality correlates of self-esteem. *Journal of Research in Personality, 35*, 463–482. doi: 10.1006/jrpe.2001.2324
- Robins, R. W., Trzesniewski, K. H., & Donnellan, M. B. (2012). A brief primer on self-esteem. *The Prevention Researcher, 19*, 3–8. doi: 10.1037/e535002013-002
- Rokeach, M. (1960). *The open and closed mind*. New York, NY: Basic Books.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rosenberg, M. (1979). *Conceiving the self*. New York, NY: Basic Books
- Rosenberg, M., Schooler, C., Schoenbach, C., & Rosenberg, F. (1995). Global self-esteem and specific self-esteem: Different concepts, different outcomes. *American Sociological Review, 60*, 141–156. doi: 10.2307/2096350
- Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. (1983). Assessing social support: The Social Support Questionnaire. *Journal of Personality and Social Psychology, 44*, 127–139. doi: 10.1037//0022-3514.44.1.127

- Sarason, I. G., Sarason, B. R., Shearin, E. N., & Pierce, G. R. (1987). A brief measure of social support: Practical and theoretical implications. *Journal of Social and Personal Relationships, 4*, 497–510. doi: 10.1177/0265407587044007
- Saunders, R., Jacobvitz, D., Zaccagnino, M., Beverung, L. M., & Hazen, N. (2011). Pathways to earned-security: The role of alternative support figures. *Attachment & Human Development, 13*, 403–420. doi:10. 1080/14616734.2011.584405.
- Schoener, G. R., & Gonsiorek, J. (1988). Assessment and development of rehabilitation plans for counselors who have sexually exploited their clients. *Journal of Counseling & Development, 67*, 227–232. doi: 10.1002/j.1556-6676.1988.tb02588.x
- Segrin, C., & Passalacqua, S. A. (2010). Functions of loneliness, social support, health behaviors, and stress in association with poor health. *Health communication, 25*, 312-322. doi: 10.1080/10410231003773334
- Shumaker, S. A., & Brownell, A. (1984). Toward a theory of social support: Closing conceptual gaps. *Journal of Social Issues, 40*, 11–36. doi: 10.1111/j.1540-4560.1984.tb01105.x
- Siedlecki, K. L., Salthouse, T. A., Oishi, S., & Jeswani, S. (2014). The relationship between social support and subjective well-being across age. *Social Indicators Research, 117*, 561–576. doi: 10.1007/s11205-013-0361-4
- Simpson, J. A., & Rholes, W. S. (2017). Adult attachment, stress, and romantic relationships. *Current Opinion in Psychology, 13*, 19–24. doi: 10.1016/j.copsy.2016.04.006
- Suri, S., Garg, S., & Tholia, G. (2019). Attachment Style, Perceived Social Support and Loneliness among College Students. *International Journal of Innovative Studies in Sociology and Humanities, 4*, 135–142.

- Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2019). *Using multivariate statistics*. NY, NY: Pearson.
- Tafarodi, R. W., & Swann Jr, W. B. (1995). Self-liking and self-competence as dimensions of global self-esteem: Initial validation of a measure. *Journal of Personality Assessment, 65*(2), 322–342.
- Tafarodi, R., & Swann, W. (2001). Two-dimensional self-esteem: Theory and measurement. *Personality and Individual Differences, 31*, 653–673. doi: 10.1016/s0191-8869(00)00169-0
- Tahir, W. B. E., Inam, A., & Raana, T. (2015). Relationship between social support and self-esteem of adolescent girls. *IOSR Journal of Humanities and Social Science, 20*(2), 42–46.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103*, 193–210. doi: 10.1037/0033-2909.103.2.193
- Triandis, H. C., Mccusker, C., & Hui, C. H. (1990). Multimethod probes of individualism and collectivism. *Journal of Personality and Social Psychology, 59*, 1006–1020. doi: 10.1037//0022-3514.59.5.1006
- Trzesniewski, K. H., Donnellan, M. B., & Robins, R. W. (2003). Stability of self-esteem across the life span. *Journal of Personality & Social Psychology, 84*, 205–220. doi: 10.1037//0022-3514.84.1.205
- Turner, R. J. (1981). Social support as a contingency in psychological well-being. *Journal of Health and Social Behavior, 22*, 357–367. doi: 10.2307/2136677

- Van der Kolk, B., Blitz, R., Burr, W., Sherry, S., & Hartmann, E. (1984). Nightmares and trauma: A comparison of nightmares after combat with lifelong nightmares in veterans. *American Journal of Psychiatry*, *141*, 187–190. doi: 10.1176/ajp.141.2.187
- Vandromme, H., Hermans, D., Spruyt, A., & Eelen, P. (2007). Dutch translation of the Self-Liking/Self-Competence Scale – Revised: A confirmatory factor analysis of the two-factor structure. *Personality and Individual Differences*, *42*, 157–167. doi: 10.1016/j.paid.2006.07.001
- Vaux, A. (1985). Variations in social support associated with gender, ethnicity, and age. *Journal of Social Issues*, *41*, 89–110. doi: 10.1111/j.1540-4560.1985.tb01118.x
- Vogel, D. L., Wade, N. G., & Haake, S. (2006). Measuring the self-stigma associated with seeking psychological help. *Journal of Counseling Psychology*, *53*, 325–337. doi: 10.1037/0022-0167.53.3.325
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, *54*, 1063-1070. doi: 10.1037/t03592-000
- Wentzel, K. R., Battle, A., Russell, S. L., & Looney, L. B. (2010). Social supports from teachers and peers as predictors of academic and social motivation. *Contemporary Educational Psychology*, *35*, 193–202. doi: 10.1016/j.cedpsych.2010.03.002
- Wills, T. A. (1991). Social support and interpersonal relationships. In Clark, M. S. (Ed.), *Prosocial behavior* (pp. 265–289). Newbury Park, CA: Sage.
- Winefield, H. R., Winefield, A. H., & Tiggemann, M. (1992). Social support and psychological well-being in young adults: The Multi-Dimensional Support Scale. *Journal of Personality Assessment*, *58*, 198–210. doi: 10.1207/s15327752jpa5801_17

- Zborowski, M. J., Hartmann, E., Newsom, M. A., & Banar, M. (2003). The Hartmann Boundary Questionnaire: Two studies examining personality correlates and interpersonal behavior. *Imagination, Cognition and Personality, 23*, 45–62. doi: 10.2190/tpmb-pe1a-l6uu-1jul
- Zeigler-Hill, V. (2010). The interpersonal nature of self-esteem: Do different measures of self-esteem possess similar interpersonal content? *Journal of Research in Personality, 44*, 22–30. doi: 10.1016/j.jrp.2009.09.005
- Zeigler-Hill, V., Holden, C. J., Enjaian, B., Southard, A. C., Besser, A., Li, H., & Zhang, Q. (2014). Self-esteem instability and personality: The connections between feelings of self-worth and the Big Five dimensions of personality. *Personality and Social Psychology Bulletin, 41*, 183–198. doi: 10.1177/0146167214559719
- Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 52*, 30–41. doi: 10.1037/t02380-000
- Zimet, G., Powell, S., Farley, G., Werkman, S., & Berkoff, K. (1990). Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment, 55*, 610–617. doi: 10.1207/s15327752jpa5503&4_17