A Dissertation

entitled

An Examination of Psychological Well-Being Among Black College Students

by

Tanisha Barren

Submitted to the Graduate Faculty as partial fulfillment of the

requirements for the Doctor of Philosophy Degree in Higher Education

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An Abstract of

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The literature on psychological well-being of Black college students is limited to a few single institution studies, and as such, a nationwide, multi-institutional empirical study of the factors that predict psychological well-being was greatly needed by higher education scholars, student affairs professionals, faculty, and administrators. This dissertation analyzed what influence, if any, demographic and college environment variables have on psychological well-being among college students. Tests of group means found four demographic variables with significant differences in psychological well-being scores within each variable. Moreover, a regression analysis revealed one input variable, one between-college characteristic, five environment variables, and eight intermediate outcome variables as significant predictors of psychological well-being among Black college students (n = 899). The findings of this dissertation are intended to provide faculty and administrators information to promote psychological well-being that has been shown through this research to influence Black college students' academic performance and college satisfaction.

For my mother, Pamela D. Lawler, and grandmothers, Essie M. Lawler and Martha J. Sutton, who believed in working hard to achieve your goals and for my children, Jessica J. and Jason A. Arrington.

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Last, but certainly not least, I would like to acknowledge my dissertation committee. I am grateful for Dr. Ron Opp, my Chair, as well as the other members of my committee: Dr. Sunday Griffith, Dr. Debra Harmening, and Dr. Christopher Roseman. I would like to extend a special word of thanks to Dr. Opp who encouraged me to continue my work on this dissertation after taking a few hiatuses during the journey. Your time and encouragement was invaluable and propelled me to finish this research.

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Chapter One

Introduction

According to several data sources, mental health problems continue to rise among college students, and psychological well-being is one of the factors affecting the quality of life for this population. Initially, anxiety increases as students move from the comfort of familiar surroundings to the unknown college environment, which may impact students' academic and psychological stability (Krumrei-Mancuso, Newton, Kim, & Wilcox, 2013; Strahan, 2003). These findings mirror those from mental health care providers on college campuses (Sontag-Padilla et al., 2016). The annual report of the *American Freshman: National Norms Fall 2016* (Eagan et al., 2017) indicated that college students have demonstrated consistent decreases in psychological health and increases in stress compared to the previous years since 2002. Among psychological well-being issues, depression is a serious form of distress that is often under-diagnosed and undertreated among college students, and it may lead to negative consequences such as poor academic performance, limited social interactions, and suicide (Burt & Paysnick, 2014; Heiligenstein, Guenther, Hsu, & Herman, 1996; Li, Albert, & Dwelle, 2014). For individuals between the ages of 15 and 45, depression is one of the leading causes of disability in the United States (Pratt & Brody, 2014). In the 2016 National College Health Assessment, college students who completed the survey reported feeling things were hopeless (53%), feeling overwhelmed by all you had to do (87%), feeling exhausted (83%), feeling lonely (62%), feeling depressed (39%), and feeling overwhelming anxiety (62%) (ACHA, 2017). Furthermore, compared to other age groups, college students have a higher risk for experiencing these negative emotions (ACHA), and the depression

rate among college students has steadily increased over time (Avila, 2009; Hunt & Eisenberg, 2010; Zivin, Eisenberg, Gollust, & Golberstein, 2009). Adjusting to the academic demands of college, moving away from home, and making new social connections represent just a few of the elements contributing to college students' stress, anxiety, or depression levels, especially during the first year of college (Johnson, Gans, Kerr, & LaValle, 2010).

Depression and stress are found generally across all countries and diverse ethnic/racial groups that have been investigated (Miranda, Lawson, & J, 2002). However, studies found that the prevalence rates of depressive disorder across different ethnic/racial groups vary (Breslau, Lucia, & Alvarado, 2006; Takeuchi, Hong, Gile, & Alegria, 2007). According to the Center for Disease Control (2010), among different racial groups, Blacks reported the highest prevalence of current depression at 12.9% followed by Hispanics (11.7%), other minorities (10.7%), and Whites (8.0%). Long-term mental, emotional, and psychological effects of racism and of living in a society characterized by majority dominance and privilege can lead to a host of psychological ailments for minorities, including depression, stress, and anxiety (McGee & Stovall, 2015).

The United States Census Bureau (2012) reported that the Black population comprised of 41 million representing 13% of the U.S. population, and Bureau projects that the percentage of Blacks will rise from 13% to 15% by 2060. On college campuses, the number of Blacks has consistently been increasing. Until the 1970s, Blacks were represented in small numbers in higher education. In 1976, there were 1,033,000 Black college students in American colleges and universities representing 6% of all U.S. college

students (NCES, 2016). In 1990, there were approximately 1.3 million Black students in colleges and universities in the United States, representing 8% of all U.S. college students (NCES). By 2015, there were 3,039,000 Black students on college campuses representing 14% of all U.S. college students (NCES).

While the transition from high school to college creates stress for all first-year students, Black students may experience this transition as more stressful because of the differences in racial environment and the experiences that might coincide with this change (e.g., isolation, discrimination, and racism) (Dzokoto, Hicks, & Miller, 2007; Kelly, Kelly, Brown, & Kelly, 1999). Overt and covert forms of racism are associated with many adverse outcomes, such as low academic performance, higher levels of stress, mental health problems and even withdrawal from college (Harwood, Huntt, Mendenhall, & Lewis, 2012). In addition, compared to their White counterparts, Black college students have higher scores on measures of psychological distress, such as loneliness, nervousness, isolation, depression, and anxiety (Soto, Dawson-Andoh, & Witherspoon, 2016).

Loo and Rolison (1986) investigated feelings of alienation among minority students in relation to their new environment and found that Black students experience more feelings of alienation than white students. Consistently, many prior studies have found that Black students perceive their general campus climate more negatively than their white peers do (Reid & Radhakrishnan, 2003). Consistent with the existing literature on the significant role of institutional climate, higher levels of social support and more comfort in the university environment were associated with more positive academic persistence decisions (i.e., students staying in school). Thus, a number of studies have

established the significant role of environmental variables in the college experience of Black students.

However, when it comes to mental health issues, Blacks are one of the least studied groups. Traditionally, Black students display a low-rate of seeking mental health services (Soet & Sevig, 2006). Issues such as mistrust of White therapists, attitudes toward mental health problems, and Black spirituality affect their help-seeking behavior (Lucas & Berkel, 2005; Mesidor & Sly, 2014; Stansbury, Wimsatt, Simpson, Martin, & Nelson, 2011). Stigma and judgment prevent this racial group from seeking treatment for their mental illnesses. Research indicates that Black Americans believe that mild depression or anxiety would be considered "crazy" in their social circles, and many believe that discussions about mental illness would not be appropriate even among family (Stansbury et al., 2011). This non-participation in help-seeking measures may be associated with this lack of research focus.

Statement of the Problem

Though a great deal of literature and research has focused on psychological well-being, it has limited focus on the psychological well-being of Black students. In particular, research on psychological well-being related to factors such as campus environment, first-generation status, spirituality, academic performance, and satisfaction with the college experience among different racial groups of college students is still under-developed. Although there are studies on psychological well-being related to specific factors among students in general (Greer & Chwalisz, 2007; Mesidor & Sly, 2014; Stansbury et al., 2011), little is known about racial/ethnic differences in psychological well-being among students in higher education. By expanding the research

on psychological well-being focused on Black students, an important segment of the higher education population would be addressed. Although higher education administrators have tried to pay attention to students' psychological well-being in recent years, colleges and universities need more quality information and understanding about the unique mental health issues of a diverse student body.

The problem explored in this study was what variables influence the psychological well-being of Black college students within the first year of college. Four-year colleges and universities are dealing with substantial challenges posed by the changing psychological well-being needs of college students. As students move from the security of familiar home environments to the uncertainty of a college campus, they face multiple challenges, both inside and outside the classroom. As these stressors mount during the first year, the psychological well-being of students may simultaneously decline.

Various studies have examined different factors related to psychological well-being, such as campus climate as a predicting factor of depression (Crocker, Luhtanen, Blaine, & Broadnax, 1994), self-esteem and psychological well-being (Crocker et al., 1994), racial identity and socialization as predictors of depression (Lee & Ahn, 2013), help-seeking efforts (Mesidor & Sly, 2014), and the relationship between religious participation and psychological well-being (Blaine & Crocker, 1995). Each of these studies has focused on only the relationship of one factor with psychological well-being, but no study has looked at numerous factors at once in order to understand what variables are related to this outcome specifically. This gap suggested that exploring the relationship between multiple factors and psychological well-being in this population would be

beneficial to understand the phenomena and to work with Black students' mental health concerns.

Purpose of the Study

The purpose of this study was to explore the relationship between various collegiate experiences and perceived psychological well-being among Black students using longitudinal data derived from the Cooperative Institutional Research Program's (CIRP) 2012 The Freshmen Survey (TFS) and the 2013 Your First College Year (YFCY) survey. Specifically, the five questions below guided this study:

1. How does psychological well-being among Black college students vary, if at all, by gender, first-generation status, spirituality, academic performance, and satisfaction with the college experience?
2. What input characteristics, if any, predict psychological well-being among Black college students?
3. What between-college characteristics, if any, predict psychological well-being among Black college students?
4. What college environment factors, if any, predict psychological well-being among Black college students?
5. What intermediate educational outcome characteristics, if any, predict psychological well-being among Black college students?

Significance of the Study

For many students, psychological problems mean missing out on academic and social opportunities that can impact their development and retention. Faced with growing minority enrollments, colleges and universities need more insight into how the collegiate

environment impacts student psychological well-being, which in turn affects academic success and persistence rates. It is important to pay attention to the factors that affect Black college students' mental health in order to make the corrective changes and create programs to better serve the academic, social, and psychological needs of growing and complex constituency.

Findings from this study will help faculty members, student affairs professionals, and other higher education administrators better understand the factors contributing to psychological well-being in Black college students. By filling a gap in the mental health literature regarding Black collegiate experiences and environments, this study will help to inform and improve current educational programs and student affairs services for Black students in relations to their college environment.

Definition of Terms

Black: is defined as an individual living in the United States who self-identifies as being of African descent, either Black alone or Black in combination with one or more races.

Depression: is a psychological disorder defined by having a depressed disposition most of the time, indicated by subjective reports such as feelings of sadness and feelings of hopelessness, or observation made by others such as appears tearful, decreased/ loss of interest in activities once pleasurable including sexual activities, sleep disorders, fatigues and decreased energy level, psychomotor agitation observable by others, feelings of worthlessness or excessive guilt, difficulty concentrating, recurrent suicidal ideation (APA, 2013). In this study, variables capturing a clinical diagnosis of depression are not included. Thus, the current study will capture students' perceived feelings of depression.

I-E-O Model: is the Input-Environment-Output conceptual model developed by (Astin, 1993) that will be used during data analysis and interpretation of results.

Psychological Well-Being: is a highly complex construct related to human nature that refers to a person's optimal psychological functioning and experience (Andrews & Withey, 1976). The National Institute on Health defines well-being as an individual's sense of competence or ability in a particular domain, such as psychological, physical, and spiritual (Hendrie et al., 2007).

Stress: is the relationship between a person and a specific environment that the person evaluates to be challenging or to exceed his/her resources and threatens his/her well-being (Hancock & Desmond, 2000).

Student Involvement: refers to "the amount of physical and psychological energy that the student devotes to the academic experience" (Astin, 1984).

Theoretical Framework

Research suggests that environments are both influenced by and exert influence on the people in them (Strange & Banning, 2001). Environment can refer to immediate, single settings, such as the family or classroom, but also to broader surroundings such as the greater sociocultural context in which one is embedded (Bronfenbrenner, 1979). Specific aspects of the environment that can affect an individual's development include activities, roles, and relationships (Seidman & French, 2004). Not surprisingly, these aspects of the environment are often changing, as shifts in environmental context are normative parts of an individual's development (Seidman & French, 2004). The shift from high school to college introduces students to a new environment full of opportunities to become involved in new activities, roles, and relationships. Astin (1984)

states that involvement is a function of the amount of psychosocial and physical energy and time put into academic endeavors, whether they are curricular or co-curricular in nature. Astin has found that those who become more involved in various aspects of college life tend to have better outcomes, both in the short and long terms. He found that factors such as interactions with other students and faculty are positively related to academic performance, as well as to a wide-range of other outcomes (Astin, 1993). Astin's Involvement Theory served as the primary theoretical framework for this study that examined the impact of the college environment on Black student psychological well-being in the first year of college.

There are several reasons why student involvement theory had been selected as the theoretical framework for this study. One reason this theory was selected is because this dissertation was a college impact study that examined how environmental factors may influence student change during the first year of college. Another reason this theory was selected is that it has been around since the 1980s, and still has relevance today. Finally, this theory was selected because it is easily understood, making its interpretation easy to apply by student development professionals and college administrators allowing them to design effective learning environments (Astin, 1999a).

Conceptual Framework

In this study, Astin's (1993) Input-Environment-Output model was used to conceptualize the relationship among pre-college characteristics (inputs), college experiences (environments), and psychological well-being (outcome). Also, between-college characteristics and intermediate education outcomes were analyzed. Astin argues that while student characteristics (inputs) are useful in predicting the outcomes of

students, the activities a student participates in while in college (environmental factors) are also important in shaping both cognitive and affective outcomes.

Student inputs included the pre-college psychological well-being, student characteristics, and other pre-college characteristics. Student characteristics were variables related to such items as ethnicity, gender, and socioeconomic status. Pre-college characteristics consisted of high school academic performance, academic and non-academic involvement, and future goals. Between-college variables were those related to the institution. These variables were items such as institutional control, type, and selectivity. The environment section consisted of four blocks: (1) faculty-to-student interactions, (2) student-to-student interactions, (3) academic involvement, and (4) non-academic involvement. Faculty-to-student interaction variables consisted of contact inside and outside of the classroom. Student-to-student interaction variables examined academic and non-academic interaction among students. Academic involvement characteristics included participation in activities of an academic nature, such as time spent studying. Non-academic involvement included participation in activities of a non-academic nature, such as time spent working. Intermediate education outcome variables referred to environmental variables that occur sometime between initial enrollment in college and assessment of the outcome variable. Examples of intermediate outcome variables included satisfaction with the college experience, reasons for not returning for the next semester, and future goals after college. The outcome variable was psychological well-being, and included the frequency of felt depressed, the frequency of felt overwhelmed, and self-reported emotional health. A visual representation of Astin's (1993) Input-Environment-Output model is displayed in the figure below.

Figure 1. Astin's (1993) Input-Environment-Output model

Delimitations

This dissertation utilized a quantitative approach to data analysis, plus a web-delivered or paper survey instrument. The sample included colleges and universities in the United States that paid a fee to the Higher Education Research Institute to administer the survey. Although the most recently available dataset was the 2013 The Freshmen Survey (TFS) and 2014 Your First College Year (YFCY) survey, the researcher decided to use the 2012 TFS and 2013 YFCY survey instead, since the sample size for Black students was greater in the latter surveys.

This study focused only on first-year students. The most recent national data showed that among students who entered college in Fall 2015, Black students had the lowest persistence rate (66.9%) of all racial groups, with just over half of Black students returning to the starting institution (54.5%) and 12.4 percent returning to an institution other than the starting one in Fall 2016 (Tizon, 2017). Although change in psychological well-being may be measured at other times in a student's academic career (e.g., end of the senior year), measuring the outcome at the end of the first year allowed the researcher to study students who may not return to college the following fall or beyond. Furthermore, this approach provided an opportunity to research a larger representative sample of the population under study.

Limitations

There were some limitations to this study design. This study was a secondary analysis of a national dataset, which provided a very rich source of information; however, it also came with a set of limitations. The dataset from the Higher Education Research Institute through the Cooperative Institutional Research Program made data available to researchers —no sooner than three years after institutional reports were mailed to participating institutions (HERI, 2017c). In other words, the national dataset used for this study is more than three years old. Also, since the researcher used a national survey that had already been administered, only the variables already collected were analyzed in this study. It should also be noted that the researcher was not a mental health professional and worked in close consultation with a doctoral-level mental health clinician while conducting this study and reporting its findings.

Assumptions

This research made use of self-reported data to measure psychological well-being. It was assumed that students are credible reporters of their activities and how much they had benefited from their higher education experience. Also, the dataset provided to the researcher was several years old and it was assumed that results from the study are still applicable to higher education today.

Summary

The purpose of this study was to elucidate the factors that impact psychological well-being in the first-year of college. Frequency of depression, frequency of feeling overwhelmed, and self-rated emotional well-being served as primary indicators of first-year students' psychological well-being. The possibility of differential effects by racial

group enriched the discussion of how college impacts students' psychological well-being. It is important for administrators, faculty, and staff to understand the profound impact that psychological well-being problems can have on all aspects of campus life, and to treat psychological well-being issues as an institutional responsibility and priority.

Chapter Two

Review of the Literature

This chapter provided an overview of the literature on Black college students, as well as a review of literature on psychological well-being and its related factors among college students in general, with a particular emphasis on Black college students. The first section of this chapter explored literature on Blacks Americans and Black college students. The second section focused on the literature on psychological well-being in general, and psychological well-being among college students and for Black college students. The next section explored literature on associated factors of psychological well-being among college students and Black college students. This section is followed by a discussion on Student Involvement Theory and the Input-Environment-Outcome model. The final section focused on literature on predictors of psychological well-being among college students and Black college students.

Black Americans and Black American College Students

This section explored population statistics related to Black persons, in general, and Black college students. Specifically, the section focused on the factors that affect this population in general, and their experiences in college. Detailed descriptions of college experiences and mental health among Black college students are presented in a later section on psychological well-being and associated factors among this population.

Black Americans. This racial group includes any individual living in the United States, who self-identifies as being of African descent, either Black alone or Black in combination with one or more races. The United States Census Bureau (2012) reported that the Black population comprised of 41 million, representing 13% of the U.S.

population, and they project that the percentage of Blacks will rise from 13% to 15% by 2060.

Black American college students. On college campuses, the number of Blacks has consistently been increasing. Until the 1970s, Blacks were represented in small numbers in higher education. In 1976, there were 1,033,000 Black college students in American colleges and universities representing 6% of all U.S. college students (NCES, 2016). In 1990, there were approximately 1.3 million Black students in colleges and universities in the United States, representing 8% of all students (NCES). By 2015, there were 3,039,000 Black students on college campuses, representing 14% of all U.S. college students (NCES).

The impact of the resiliency myth. The "resilient with grit" figure is prevalent in much of the research literature on Black American college students. James (1994) termed this phenomenon "John Henryism" after historical figure John Henry, a slave who literally worked himself to death in order to prove his worth. John Henryism is a construct characterized by three major themes: efficacious mental and physical vigor, a strong commitment to hard work, and a single-minded determination to succeed (James, 1994). John Henryism has been used to explain poor physical and mental health outcomes among individuals who must respond to chronic strains that overwhelm their coping skills (James, 1994). Henryism is a coping strategy often adopted by high-achieving Black Americans, who may unconsciously (and increasingly consciously) sacrifice their personal relationships and health to pursue their goals with a tenacity that can be medically and mentally deleterious (McGee & Stovall, 2015). Similarly, the "Sojourner Syndrome" named after Sojourner Truth, a former slave who traveled the

United States preaching for women's rights for Black women, hypothesizes that Black women become more susceptible to disease and illness because of their constant exertion to stay strong, work hard, and overcome obstacles they encounter in their social and physical environment. Furthermore, "weathering," a term put forth by (Geronimus, Hicken, Keene, & Bound, 2006), refers to a phenomenon characterized by long-term physical, mental, emotional, psychological effects of racism and of living in a society characterized by white dominance and privilege. Weathering severely challenges and threatens a person's health and ability to respond in a healthy manner to the environment. Historically, Black Americans have normalized their own suffering. During slavery, mental illness often resulted in a more inhumane lifestyle, including frequent beatings and abuse, which forced many slaves to hide their issues. Over time, strength became equated with survival, and weakness (including mental illness) could lead to a slave's demise (Boyd-Franklin, 2006). That stigma still exists today. Many Black Americans, especially those who have ascended the socio-economic and professional ladder in the face of institutionalized racism, struggle with feeling compelled to be strong (Logan, 2005).

According to the Health and Human Services Office of Minority Health, Black Americans are 20% more likely to experience serious mental health problems than the general population (NAMI, 2017). However, many Blacks have opted not to get the help that they need from mental health care professionals, due to the stigma associated with mental health treatment. Barksdale and Molock (2008) noted, traditionally, African Americans have relied primarily on family, religious, and social communities for emotional support, rather than trained professionals. Past research has indicated that

people with higher education levels are more likely to seek out and receive mental health services; while that may be true for whites, it appears the opposite is true for young adult blacks (Neighbors et al., 2007; Ojeda & McGuire, 2006; Snowden, Masland, Fawley, & Wallace, 2009; Snowden & Yamada, 2005). Researchers discovered that Whites who had previously enlisted the help of mental health care workers were likely to seek assistance again, while the opposite was true for Blacks (Broman, 2012). Because of the stigma associated with mental health among Black college students, many act as if they do not need help, or that they can endure under any condition. Black college students who strive for success, have difficulties asking for help when needed, and minimize or ignore their needs.

This section reviewed the population statistics for Black Americans and those for the target population of this study, Black college students. Also, explored was the resiliency myth associated with this population. Next, the researcher focuses on the literature on the main topic of the study, psychological well-being.

Psychological Well-being

This section provides definitions of psychological well-being with emphasis on how the construct has been operationalized in past studies on college student psychological well-being. This discussion is followed by an exploration of psychological well-being among college students.

Psychological well-being defined. Psychological well-being: is a highly complex construct related to human nature that refers to a person's optimal psychological functioning and experience (Andrews & Withey, 1976). Although there has been a lack of agreement on the definition of well-being among researchers, Diener (2000)

established the concept of well-being as “Well-being is an individual’s subjective evaluation of one’s life evaluations that are both affective and cognitive. People experience well-being when they feel many pleasant and few unpleasant emotions, when they are engaged in interesting activities, when they experience many pleasures and few pains, and when they are satisfied with their lives. (p. 34).”

The World Health Organization has defined health as “a state of complete physical, mental, and social well-being”, and not just the absence of disease or stress. In the context of this expanded definition of health, psychological well-being and stress have emerged as important issues for understanding the nature of mental health and its impact on life. Stress and psychological well-being are interrelated but distinct concepts. Stress refers to an individual‘s appraisal that a particular stressor is perceived as a source of harm, loss, threat, or challenge (Lazarus, 2006). Because psychological well-being is subjective and related to positive functioning and life satisfaction, psychological well-being cannot be attained if stress exists (Andrews & Withey, 1976). Consequently, stress can be used as an indirect measure of psychological well-being. In addition, psychological well-being and stress are related to but distinct from depression, which is a form of psychological distress.

The ultimate litmus test for psychological well-being is often the measure of depression, which is closely associated with anxiety and stress. Depression is one of the most common mental disorders in the United States (APA, 2017b). People with depression may experience a lack of interest and pleasure in daily activities, significant weight loss or gain, insomnia or excessive sleeping, lack of energy, inability to concentrate, feelings of worthlessness or excessive guilt, and recurrent thoughts of death

or suicide (APA, 2017b). According to the National Institute of Mental Health (NIMH, 2015), approximately 16 million, or 6.7% of Americans are afflicted with some form of depression each year. According to the National Institute of Mental Health (NIMH, 2005), approximately 43 million, or 18% of Americans live with some form of anxiety each year. Generalized Anxiety Disorder is characterized by excessive worry about a variety of everyday problems for at least six months, with individuals having difficulty calming their concerns, even though they realize their anxiety is more intense than the situation warrants (APA, 2017a). Moreover, feeling overwhelmed is perhaps the most common symptom of anxiety, which tends to cause stress affecting individuals both physically and psychologically. Everyone feels stressed from time to time. Some people may cope with stress more effectively or recover from stressful events more quickly than others. There are different types of stress -- all of which carry physical and mental health risks. Stress can be brief, situational and a positive force motivating performance, but if experienced over an extended period of time, it can become chronic stress and lead to anxiety and depression, which negatively impacts well-being (APA, 2017c).

Much of the research on college student psychological well-being focuses on stress, anxiety, and depression (Dixon & Kurpius, 2008; Eisenberg, 2007; Pidgeon, McGrath, Magya, Stapleton, & Lo, 2014; Posselt & Lipson, 2016). Research shows that depression, stress, and anxiety are correlated (Crawford & Henry, 2003; Pidgeon et al., 2014). The difference between them is that stress is a response to a threat in a situation (APA, 2017c). Anxiety is a reaction to the stress (APA, 2017a). Anxiety and depression are comorbid conditions that may occur in the same person, but neither one causes the

other (APA, 2017b). Stress can also lead to emotional problems, depression, panic attacks, or other forms of anxiety, and worry (APA, 2017c).

Carton and Goodboy (2015) study on college students' psychological well-being and interaction involvement in the classroom operationalized psychological well-being by measuring depression, anxiety, and stress. An empirical study on psychological well-being and distress of college students created a construct of psychological health that included anxiety, depression, loss of behavioral or emotional control, and general positive affect (Burris, Brechting, Salsman, & Carlson, 2009). Likewise, Conley, Travers, and Bryant (2013) operationalized psychological adjustment, in their study of first-year college students, with negative distress elements as a measure of depression, anxiety, stress, perceived stress, expressive suppression, and dysfunctional thoughts. Sax, Bryant, and Gilmartin (2004) noted in their study of emotional health among first-year college students that a precursor to emotional health is psychological well-being as measured by feelings of depression, isolation, loneliness, worry, and being unmotivated. Finally, Bowman and Small's (2012) study on minority students' religious affiliation and well-being derived its psychological well-being construct using four items on the Cooperative Institutional Research Program – Spirituality in Higher Education: self-rated emotional health, stress and anxiety, feeling overwhelmed, and feeling depressed. Based on the review of past research that operationalized psychological well-being in studies on college students, common items included in the construct were depression, stress, anxiety, and emotional health.

Psychological well-being among college students. Mental health issues are especially prevalent among college students in the United States. According to the

American College Health Association's National College Health Assessment (ACHA, 2017), approximately 16% of college students were diagnosed or treated for depression, ten percent (10%) reported having panic attacks, nearly 20% were diagnosed or treated for anxiety, and 13% reported both depression and anxiety. Deroma, Leach, and Leverett (2009) found that students with anxiety and depression experience loss of interest and pleasure in everyday things, resulting in less quality academic and social experiences. In terms of psychological well-being, students who indicate higher levels of general stress reported decreased well-being (Pidgeon et al., 2014). Furthermore, compared to other age groups, college students have a higher risk for experiencing these negative emotions, and the depression rate among college students has steadily increased over time (Avila, 2009; Hunt & Eisenberg, 2010; Zivin et al., 2009).

More recently, the National College Health Assessment (2017) found that 39% of the students had felt depressed within the past month and had felt that it was difficult to concentrate or function, eighty-seven percent (87%) felt overwhelmed by all they had to do, and 62% reported feeling overwhelming anxiety. Furthermore, nearly 11% of students sampled had seriously considered suicide, while approximately 8% intentionally harmed themselves in the last year. The percentage of suicide attempts is cause for concern. In 2015, approximately 44,000 Americans committed suicide, and the numbers are underreported, due to suicide being recorded as an accidental death in some instances (AFSP, 2017). Approximately 13% of the suicides in 2015 involved people between the ages of 15 and 24 (AFSP, 2017). On college campuses, intervention and assistance for suicidal students seems to be lacking, when we consider the above figures. The establishment of a healthy living community that focuses on health-related issues,

including emotional, physical, and overall well-being, may be what students need to get through these emotional and psychological difficulties.

Psychological distress among ethnic college students represents a serious health concern (Smith & Silva, 2011) with rates of depression differing across ethnic groups on campus (Wei, Ku, & Liao, 2011). Minority students experience unique stresses that interfere with their college adjustment and integration into the university community. Divergent from the "resilient Black American stereotype" that Black Americans have an extremely efficacious physical and mental vigor, researchers have indicated that Black Americans report higher levels of mental distress compared to White Americans (Deroma et al., 2009; Wei et al., 2011; Wei et al., 2010). Wei et al. (2011) found that Black students had the highest levels of psychological distress, when compared to Latinos and Asian Americans.

A number of studies found unique symptoms of psychological distress that Black Americans experience. For example, Warren-Findlow (2006) suggests that lifelong chronic and cumulative exposure to social and economic stressors is associated with early onset of chronic illness in Black Americans. Furthermore, Geronimus et al. (2006) argue psychological distress issues among Black Americans can cause wear and tear, both somatic and mental, and lead to a host of psychological and physical ailments, including heart disease, diabetes, and accelerated aging. These two studies suggest that somatic symptoms of psychological distress are a unique aspect of depression and stress observed in the Black American population.

This section presented both general and operational definitions of psychological well-being, followed by the impact of psychological well-being on the general college

student population, and Black college students. The next section focuses on identifying factors associated with psychological well-being among college students with an emphasis on Black students.

Factors Associated with Psychological Well-being among College Students

Given the nature of the current study, which investigates the impact of college on psychological well-being among Black college students, this section reviews literature related to associated factors of psychological well-being (i.e., stress, anxiety, and depression) among college students and Black college students. Also discussed were the unique types of stressors for minority college students, especially Black students.

Stress, anxiety, and depression among college students. As with any major life change, beginning college requires a process of adjustment. This transition from the highly structured high school environment to the more flexible and unstructured college environments may cause anxiety and stress that may lead to depression.

According to Hancock and Desmond (2000), stress is the relationship between a person and a specific environment that the person evaluates to be challenging or to exceed his/her resources and threatens his/her well-being. High levels of stress cause negative relational, psychological and physical outcomes, such as sleep problems, decreased immunity, disruption of interpersonal relationships, and mental health concerns (Burris et al., 2009).

Several variables have been related to academic performance and college student depression, anxiety, and stress. In general, stress in college is caused by academic, social, and financial pressures. Students face a number of academic challenges in college, including finding time to study, understanding course content, and maintaining a high

degree of motivation. Misra and McKean (2000) found that anxiety, ineffective management, and a lack of satisfying activities outside of academia were strong predictors of academic stress, and depression (Wang & Castañeda-Sound, 2008). Reduced cognitive and physiological capacity of depressed students may negatively affect academic performance in several paths. According to Beck's (1976) cognitive theory of depression, in achievement-oriented environments, depressed individuals are prone to react to low grades with a sense of failure due to tendencies to display negative perception of themselves, the world, and the future. Students, who have a pessimistic view of themselves because of depression, are more threatened by difficult academic tasks, thus negatively affecting their academic potential (Deroma et al., 2009). Researchers have confirmed a link between perfectionism, stress, and depression among college students (Arthur & Hayward, 1997; Rice & Lapsley, 2001), and among Black college students (Chang, 2017). Researchers found in their study of depression and associated factors among college students that stress and anxiety were related to withdrawals from college (Boyraz, Horne, Owens, & Armstrong, 2016).

Socially, many college students leave behind close friends and family members and must forge new relationships with peers, advisors, and faculty. College students frequently report loneliness, homesickness, conflict, and distress in interpersonal relationships (Conley et al., 2013). Low sense of belonging was strongly associated with higher levels of depression (Dixon & Kurpius, 2008). Socially, the pervasiveness of the Internet on college campuses has created a different kind of college environment for students. Research has indicated positive associations between problematic Internet use (i.e., any use of the Internet that creates psychological, social, school, or work difficulties

in users' lives) and negative outcomes such depression, increased loneliness, procrastination, and sleep loss (Deatherage, Servaty-Seib, & Aksoz, 2014). Social support and socially active involvement in college have been shown to reduce the level of stress experienced by college students (Bowman, 2010). Lento-Zwolinski (2007) found that depression was negatively related to physical aggression among male university students. Furthermore, depression has been associated with increased levels of smoking and increased alcohol consumption (Burris et al., 2009). Increased levels of anxiety and increased self-injurious behaviors (Eisenberg, 2007). For example, greater suicidal ideation (Stephenson, Pena-Shaff, & Quirk, 2006), excessive alcohol consumption (Owen, Rhoades, Stanley, & Fincham, 2010), and risky sexual behaviors among college students (Owen et al., 2010; Vrangalova, 2015) have all be associated with greater depression. Social support has been associated with lower levels of suicidal ideation and depression among African American college (Harris & Molock, 2000). In addition, Black college students who scored high on measures of optimism were found to report less depressive symptoms than their pessimistic counterparts (Mosher, Prelow, Chen, & Yackel, 2006). Loneliness has been found to be associated with depressive symptoms among Black students (Chang, 2017) with greater religious emotional support decreasing depressive symptoms (Holt, Wang, Clark, Williams, & Schulz, 2013).

Financial strain, defined as financial demands that tax one's ability to manage those demands (Lazarus, 2006), is a source of stress among college students (Staats, Cosmar, & Kaffenberger, 2007). The financial strain of credit card debt has been associated with reduced physical and mental health (Eisenberg, 2007) as well as students' inability to complete their education (Serido, Shim, Xiao, Tang, & Card, 2014). Dealing

with these pressures during the transition from adolescence to adulthood can trigger or unmask depression during college in some young adults (Zivin et al., 2009).

Although most of these studies included ethnically diverse college student samples, the majority of participants were White students. Therefore, empirical studies with a greater number of Black American students may assist in evaluating the experiences of stress, anxiety, and depression among Black college students.

Researchers have noted that ethnic minority students are likely to experience unique stressors associated with their minority status, in addition to some sources of stress experienced by all college students (Wei et al., 2011). In the following section, the researcher discusses ethnic minority students' unique experiences in college and their types of stress.

Minority-status stressors. Researchers who have studied the psychological well-being of ethnic minorities propose a reciprocal influence between people and their surroundings as a conceptualization of well-being (Smith & Silva, 2011). College campuses provide a unique cultural setting for the mixing of diverse social and cultural interactions that may affect a student's experience of stress (Wei et al., 2011). Ethnic minority students have to cope with unique demands resulting from their experience as minorities (e.g., social and political disadvantages as ethnic minority students, immigration status) in addition to the typical demands of college. Alienation, racial discrimination stress, interracial interaction stress, within group pressure, and achievement stress are examples of stresses related to minority status (Wei et al., 2010).

Alienation. Loo and Rolison (1986) investigated feelings of alienation among minority students in relation to their new environment and found that minority students

experience more feelings of alienation than white students. This is the main cause of social climate stress. However, social climate stress may be experienced differently by ethnic students depending on the racial composition of the campus they attend (Hurtado, Clayton-Pedersen, Allen, & Milem, 1998). Black students at Predominantly White Institutions (PWIs) may experience greater feelings of alienation than their counterparts at Historically Black Colleges and Universities (HBCU) due to an incongruence between their own cultural values and beliefs, and those of the PWI. This person-environment incongruence may make Black students attending PWIs more at risk for potentially detrimental emotional, psychological, social, and academic outcomes, as a result of the added stress associated with the adjustment to what is often a new and different racial environment (Wei et al., 2010). Consistently, many prior studies have found that Black students at PWIs perceive their general campus climate more negatively than compared to their White counterparts (Reid & Radhakrishnan, 2003).

Racial discrimination and microaggression. Research has shown that racial discrimination is a social risk factor for psychological well-being among ethnic minority groups and is associated with mental health problems, including depression, stress, and anger issues (Brondolo, Brady ver Halen, Pencille, Beatty, & Contrada, 2009; Dawson, Soto, & Witherspoon, 2016). For example, Harrell (2000) found significant correlations between racial discrimination and lower levels of self-esteem, happiness, and general life satisfaction among ethnic minority populations. In addition to major discriminatory events, researchers have focused on daily race-related stressful events and their relationship with psychological well-being among ethnic minorities.

A significant body of research has demonstrated that the environment at PWIs strongly influences Black students' college experiences (Chavous, 2000; Douglas, 1998; McGee & Stovall, 2015). Many of these students may be first-generation college students, who have never been exposed to a predominantly white environment. Although many PWIs have become more diverse, Black students at PWIs may frequently experience racism. The term racial microaggressions refers to subtle and hidden forms of discrimination (Harwood et al., 2012). In their investigation of racial microaggressions at a PWI, Harwood et al. (2012) conducted focus groups with students of color about their college experiences. Many students reported racist jokes and comments, racial slurs, and overall unequal treatment. For example, one student reported her roommate was "constantly saying little comments." Another student noted the appearance of segregation in the residence halls, reporting that certain halls were being referred to as "minority central" or "the projects". Despite progress made over the years, racism continues to have an impact on the mental health of Black Americans. Negative stereotypes and attitudes of rejection have decreased, but continue to occur with measurable, adverse consequences for the psychological well-being of Black students.

Interracial interaction stress. Interracial interaction stress includes feelings that an individual experience due to cultural self-consciousness and conflicting value systems (Chávez & French, 2007). Psychological research suggests that the impact of interracial interactions with White students may differ from interactions with students of color. In majority-minority interactions, Whites are often concerned about appearing prejudiced, whereas people of color are often concerned about Whites being biased against them by believing in negative stereotypes related to their racial group. Moreover, students' racial

attitudes and preconceptions about their interracial conversational partners substantially affect the outcomes from those interactions (Bowman, 2013). On a racially diverse campus, Black students may experience interracial stress in their interactions with students, faculty members, and administrators from other racial or ethnic groups.

Racial identity and socialization. Minority students often face unique challenges regarding the meaning of their racial identity and socialization while attending PWIs (Chavous, 2000). Brondolo et al. (2009) suggest that racial identity and socialization are linked to discrimination-distress. Racial identity has been defined as identification with groups of people who have been socialized as belonging to a racial group (Helms, 2007). Racial socialization refers to the process in which individuals are taught certain cultural values and beliefs that pertain to their racial group membership (Berkel et al., 2009). Anderson (1991) contended that because minorities often have values that differ from those of the dominant culture, they frequently feel pressure to adapt to or even adopt a Eurocentric orientation. This process of taking on aspects of the dominant culture is referred to as acculturation. As the source of this stress is the process of acculturation, it is referred to as acculturative stress.

Thompson, Anderson, and Bakeman (2000) examined the effects of racial socialization and racial identity on acculturative stress and found that certain racial identity attitudes were associated with higher levels of acculturative stress, with lowered mental health status, feelings of marginality and alienation, psychosomatic symptom level, identity confusion, anxiety, and lower self-concepts. Individuals who had more pre-encounter or immersion attitudes tended to experience more acculturative stress. Individuals in the pre-encounter stage approaches the world from a Eurocentric frame of

reference and tend to degrade things that are associated with Blackness, while idealizing things associated with White culture. In the immersion stage, the individual immerses himself or herself in Black culture and terminates contacts with Whites as much as possible. Individuals with pre-encounter attitudes may be dealing with self-acceptance or anxiety related to being a Black, while those holding immersion attitudes almost exclusively affiliate themselves with Black culture. The need to be bicultural in a sometimes hostile environment may cause tension and stress. Wei et al. (2010) examined the effects of perceived bicultural competence (PBC) and minority stress on depressive symptoms. PBC was defined as being able to live effectively, and in a satisfying manner, within two groups without compromising one's sense of cultural identity. For example, minority students often need to interact with people from the majority culture as well as their own culture. Minority stress was found to be positively associated with depressive symptoms, while PBC was found to be negatively associated with depressive symptoms. In other words, students' sense of confidence in their abilities to function well in not only their own culture, but in another culture as well, was related to higher psychological well-being.

Within-group pressure. Within-group pressure is experienced by ethnic minorities as they interact with people from their own ethnic background. It includes cultural pressure to conform to the norms of their own ethnic group: for Black students this may include how they should act to conform to their own culture, or what to value and believe as Black Americans (Lee & Ahn, 2013). Ethnic minority students' families may also be a main source of within-group pressure. The within-group pressure among Black Americans is due to the collectivism in Black culture that emphasizes the family

connection and values (Carson, 2009). Causey, Livingston, and High (2015) indicated that the collectivist nature of Black culture may be disrupted while a student attends college, and this may cause within-group pressure and emotional issues.

Achievement stress. Finally, achievement stress refers to a student's concern over academic performance and success. Perfectionism has been established as a multidimensional construct with both adaptive and maladaptive aspects that relate differently to various psychological indicators (Arthur & Hayward, 1997). For example, adaptive perfectionism has been found to be positively related to self-esteem (Rice & Lapsley, 2001); in contrast, maladaptive perfectionism has been found to be negatively related to self-esteem and positively related to depression and anxiety (Castro & Rice, 2003). According to Elion, Wang, Slaney, and French (2012) in many cases, ethnic minority students may feel they have to prove to others that they received admissions to college based on their academic excellence, rather than to meet a race-based quota. Due to the strong emphasis on educational achievement and family involvement in Black culture, Black students may feel pressure for high academic performance. Family pressure has had adverse psychological effects on many Black American students (Nilsson, Paul, Lupini, & Tatem, 1999).

In this section, the researcher presented the literature related to factors associated with psychological well-being (i.e., stress, anxiety, and depression) among college students and Black college students. This discussion was followed by a review of unique stressors of minority college students with a focus on Black students. The next section examines the theoretical foundation for this study.

Student Involvement Theory

This section provided a brief description of how the campus environment impacts students. This is followed by a discussion on student involvement theory and how it was applied in this study.

As with any major life change, beginning college requires a process of adjustment to the campus climate. The campus climate includes the overall feel and structure of the campus environments, institutional policies, services provided for students, and relationships and interactions with faculty, staff, administrators, and other students (Hurtado et al., 1998). The campus climate is considered a significant factor influencing many college outcomes, including retention, college adjustment and transition, and degree completion (Harper & Hurtado, 2007). For ethnic minority students, students' perceptions of the college environments have a significant impact on their college experience. For example, Wei et al. (2011) study on racial/ethnic minority students experiences at PWIs indicates that minority students experience stressors associated with their minority status and report extreme sensitivity to the campus climate, including invisible tensions with White peers and racial discrimination on campus.

Strange and Banning (2001) have identified safety, involvement, community, and inclusion as components of the student experience influenced by the campus environment. The structural diversity of a campus contributes to students' sense of safety and inclusion, yet students who do not fit the dominant characteristics of their campus community, such as racial or ethnic minorities often experience hostile campus environments. Consistently, many prior studies have found that Black students perceive their general campus climate more negatively than their white peers do, and this

perception is significantly associated with students' general satisfaction with college and well-being (Reid & Radhakrishnan, 2003).

As noted previously, stress is the relationship between a person and a specific environment that the person evaluates to be challenging or to exceed his/her resources and threatens his/her well-being (Hancock & Desmond, 2000). How each student reacts to stress can lead to important individual differences that influence how the student's college environment affects him or her. In his seminal study of dropouts, Astin (1975) produced findings regarding the "fit" between student and college: Students are more likely to become involved and persist at colleges where they can identify with the institution.

Involvement is especially important in the first year of the college experience because this is when relationships begin to form and a foundation is laid that is critical for student success (Tinto, 2012). Alexander Astin's Theory of Student Involvement (1993, 1999b) states that involvement is a function of the amount of personal energy and time students put into academic endeavors, whether they are curricular or co-curricular in nature. Astin further posits that the more involved students are with the undergraduate experience, the better chance they will persist and graduate. Astin notes that while student characteristics are useful in predicting the outcomes of students, the activities and experiences a student participates in while in college (environmental factors) are also important in shaping both cognitive and affective outcomes. He found that factors such as interactions with students and faculty are positively related to degree completion, as well as to a wide-range of other outcomes (Astin, 1993). Tinto (1993) suggests that integration into the college environment is an emergent process that is largely a function of formal

and informal interactions students have on a campus, in both academic and social capacities. Through interactions in the social and academic realms, students either reaffirm or reevaluate their initial goals and commitments. Students who lack sufficient interaction with others on campus or have negative experiences may decide to depart the university as a result of this reevaluation. In their exhaustive review of the literature on the impact of college on students, Pascarella and Terenzini (2005) reported that results are largely consistent with Astin's views, concluding that the level of student involvement and integration in any of the components of an institution's academic and social systems can be critical factors in many student outcomes.

Although much of the literature on student involvement has focused on its association with aspects of cognitive learning and development (Gellin, 2003; Pike, Kuh, & Gonyea, 2003), these are not the only dimensions of student growth in college shaped by student involvement. Numerous researchers have previously studied the relationship of student involvement and time-on-task with various mental health outcomes, including psychological well-being among the general college population (Aspelmeier, Love, McGill, Elliott, & Pierce, 2012; Bowman, 2010; Huppert, 2009; Pritchard & Wilson, 2003; Sax et al., 2004; Strahan, 2003), and as such, precedent exists for including those variables in an examination of the impact of college on psychological well-being. This dissertation research on the role of student involvement and environmental factors in influencing psychological well-being among Black students added to this literature.

This section provided an overview of how student involvement theory was applied in this study. The next section focuses on the conceptual model that was used in this dissertation.

Inputs-Environments-Outcomes (I-E-O) Model

Astin's Input-Environment-Outcome (I-E-O) model (1991) served as the conceptual framework for this study. This model was developed as a guiding framework for assessments in higher education. The premise of this model is that educational assessments are not complete unless the evaluation includes information on student inputs (I), the educational environment (E), and student outcomes (O). Astin argued that while student characteristics (inputs) are useful in predicting the outcomes of students, the activities a student participates in while in college (environmental factors) are also important in shaping both cognitive and affective outcomes.

The I-E-O model explores two-time points: pre-environment and post-environment to measure the effects of the college experience (environment) on selected outcomes (outputs), while controlling for students' background variables (inputs). A thorough impact of the college experience study would also examine between-college variables and intermediate education outcome variables. A general description of variables in this model is provided below.

Inputs include the pre-college psychological well-being, student characteristics, and other pre-college characteristics. Student characteristics are variables related to such items as ethnicity, gender, and socioeconomic status. Pre-college characteristics consists of high school academic performance, academic and non-academic involvement, and future goals. Between-college variables are those related to the institution. These variables are items such as institutional control, type, and selectivity. The environment variables consist of students' experiences during their time in college. This includes interactions inside and outside of the classroom that may be academic or non-academic in

nature. Intermediate education outcome variables refer to environmental variables that occur sometime between initial enrollment in college and assessment of the outcome variable. Examples of intermediate outcome variables include satisfaction with the college experience, reasons for not returning for the next semester, and future goals after college. In this study, the outcome or dependent variable examined was psychological well-being. More specifically, the outcome variable under study measured a student's self-reported perception of psychological well-being, and not necessarily a clinical assessment of psychological well-being.

This section provides a summary of the conceptual model that was used in this study. The next section discusses the predictors of psychological well-being among college students.

Predictors of Psychological Well-being among College Students

In this section, literature on predictors of psychological well-being was explored within the framework of the I-E-O model. Furthermore, the environment variable was examined within the context of Student Involvement Theory.

Korkmaz and Cole (2013) found that psychological well-being is related to perceptions of the college environment, and subsequent academic and non-academic engagement. Likewise, campus climate was shown as a predictor of psychological well-being (Dawson et al., 2016; Fischer, 2007). Results of these studies provide evidence that the environment matters, and support the I-E-O model proposed by Astin (1993) in which the environment mediates the relationship of person and behavior. The literature below is presented within the framework of Astin's (1993) I-E-O model.

Inputs. Kilgo, Mollet, and Pascarella (2016) found that student involvement has a significant positive link with psychological well-being that persists even in the presence of controls for pre-college psychological well-being. Certain pre-college characteristics are strongly related to the development of psychological well-being; specifically, being female, Latino/Hispanic, traditional age, and having high academic achievement and aspirations are associated with greater psychological well-being upon entering college (Bowman, 2010). Moreover, even when controlling for a host of college experiences, psychological well-being gains during the first year are positively related to several pre-college attributes, including being a non-first-generation student, female, being older than the traditional college age, and having high academic achievement (Bowman, 2010). However, other researchers have found high levels of psychological well-being for men than women (Burris et al., 2009; Sax et al., 2004). Of special note, in a longitudinal study of first-year college students, a steep decline in their psychological and social well-being occurred between the start of college and halfway through the freshman year (Conley, Kirsch, Dickson, & Bryant, 2014). Psychological well-being did rebound by the end of the first year, but not to baseline.

Between-college characteristics. No relationships was found between psychological well-being and institutional type (i.e., regional university and research university, liberal arts colleges), for special-serving-mission institutions (i.e., Historically Black Colleges and Hispanic Serving Institutions, predominantly White institutions), same-gender institutions, or institutional selectivity using the sample mean of ACT composite score for each institution (Kilgo et al., 2016). One empirical comparison reported that Black students at a predominantly White university campus experienced

higher levels of psychological distress than African American students at a historically Black university (Greer & Chwalisz, 2007).

Environment variables. Using Astin's Student Involvement Theory (1993, 1999b) as the theoretical guide, this section detailed predictors of college student psychological well-being within the following areas: faculty-to-student interactions, student-to-student interactions, academic involvement, and non-academic involvement.

Faculty-to-student interactions. Faculty interactions have been shown to promote psychological well-being in the general college population (Bowman, 2010). Cole (2007) examined the psychological well-being and academic performance of 89 Black students. Their results supported the hypothesis that there was a relationship between interactions with faculty and psychological well-being of Black students. Those students that were better integrated tended to be better adjusted, made better grades, and were less likely to consider leaving the institution prior to completing their degree, than those students that were not as integrated. These findings also supported out-of-classroom interactions with faculty. Those individuals who were better integrated tended to have better psychological well-being.

Student-to-student interactions. Bowman (2010) found that psychological well-being is affected by the formation of quality peer relationships and having adverse interactions with peers from different racial/ethnic groups. In a longitudinal study of first-year college students, a steep decline in their psychological and social well-being occurred between the start of college and halfway through the freshman year (Conley et al., 2014). The relationship between social support and mental health has been well documented by a number of studies. For example, Friedlander, Reid, Shupak, and Cribbie

(2007) have found that individuals with low psychological well-being are more likely to be socially isolated compared to those who are less psychologically distressed. Burris et al. (2009) reported that social support is the strongest factors associated with psychological distress, and Conley et al. (2013) found that psychologically distressed individuals were lacking in friends or partners and felt alone. These studies confirm the arguments that social support is an effective way of coping against and decreasing risks for physical and mental effects of stress (Krumrei-Mancuso et al., 2013; Pritchard & Wilson, 2003). For Black students, social support is related to psychological well-being (Kim, 2017; Love et al., 2009)

Academic involvement. Bowman (2010) identified a positive relationship between involvement in campus experiences during the first year of college and psychological well-being. Specially, co-curricular involvement (i.e., student organizations, Greek life, among others) significantly predicted several aspects of psychological well-being including: students' personal growth, positive relationships with others, and purpose in life. Kilgo et al. (2016) suggested that being a resident advisor, participating in intramural sports, and higher involvement in student organizations had positive effects on well-being (Bowman, 2010).

Non-academic involvement. The important role that parental attachment relationships play in the psychological well-being of college students has been well documented (Armsden & Greenberg, 1987; Melendez & Melendez, 2010). Many studies have shown that attachment security is directly associated with positive indicators of adjustment such as psychological well-being, social adjustment, and emotional well-being for Black students (Hinderlie & Kenny, 2002; Love, 2008; Love et al., 2009).

Bowman (2010) found being a peer educator in a nonacademic role or working greater than 20 hours per week had positive effects on psychological well-being. In first-year college students, alcohol use was associated with lower psychological well-being (Bowman, 2010). Findings are inconsistent when examining the relationship between frequency of alcohol use and psychological well-being. Lanier and colleagues found higher levels of well-being among college students who consumed two drinks per week compared with none and 4–7 drinks (Lanier, Nicholson, & Duncan, 2001); while, psychological well-being has a negative relationship with cigarette smoking and a higher frequency of alcohol use (Bowman, 2010; Burris et al., 2009). In a cross-sectional study of casual intimate relationships, higher levels of psychological well-being were associated with hooking up among college men (Owen et al., 2010). However, in a nine-month longitudinal study, there was no relationship between psychological well-being and hooking up (Vrangalova, 2015). Another threat to psychological well-being among college students is poor sleep habits. The quality of sleep was associated with psychological well-being but not sleep quantity in college students (Pilcher & Ott, 1998; Ridner, Newton, Staten, Crawford, & Hall, 2016). Psychological well-being and physical exercise are linked. The use of a leisure activity, such as physical activity, increases well-being and lowers mental health-issues (Burris et al., 2009). Bray and Born (2004) found physical health to be a significant predictor of psychological well-being in undergraduate students. Physical exercise alleviates negative moods, reduces anger, and decreases depression and anxiety (Bhochhibhoya, Branscum, Taylor, & Hofford, 2014). Additionally, those who exercised more frequently felt more socially integrated into their community. Bowen Reid and Smalls (2004) and Love et al. (2009) found that having

religious practices was related to healthier and positive psychological well-being in college students.

Intermediate educational outcomes. Burris et al. (2009) found that optimism had a positive correlation with psychological well-being. Self-concept is negatively associated with poor psychological well-being or mental health among college students. (Latha, Hegde, Bhat, Sharma, & Rai, 2006). Likewise, self-concept was a predictor of psychological well-being for Black students (Thompson et al., 2000). Blaine and Crocker (1995) study of 144 undergraduates' religiousness is a predictor of psychological well-being for Black students, and was related to increased self-esteem and life satisfaction. Furthermore, cultural values has a positive impact on psychological well-being for Black students (Neblett, Banks, Cooper, & Smalls-Glover, 2013). Effective coping have been associated with positive psychological adjustment to academic demands during the first semester of college (Struthers, Perry, & Menec, 2000). (Bray & Born, 2004). Zullig, Ward, and Horn (2006) conducted a study on college students' perceived health and religiosity in 522 college students and found that students who described themselves as religious were more likely to report higher psychological well-being compared to peers who described themselves as non-religious. Bowman (2010) and Carton and Goodboy (2015) found that psychological well-being is positively related to grade point average. Similarly, research indicates that mental states have a relationship with psychological well-being and academic achievement and performance for Black students (Elion et al., 2012).

This section examined the predictors of psychological well-being among college students within the framework of Student Involvement Theory and the I-E-O model. The next section provides a summary of the chapter.

Summary

This chapter included a literature review of existing studies on psychological well-being and associated factors among college students, and limited empirical studies examining Black students' psychological well-being. Although the above-mentioned studies found a relationship between one factor and psychological well-being among Black college students, researchers have generally not examined multiple factors in explaining the predictors of psychological well-being. Thus, this gap suggested exploring multiple contributing factors to psychological well-being on this population was beneficial to understand the phenomena and to work with Black students' mental health concerns. Because there was limited research on the college environment factors and students' collegiate experiences that predict psychological well-being for Black college students, this study helped to fill the gap in the literature. In addition, most of the studies on predictors of psychological well-being do not use longitudinal data; thus exploring the relationship between multiple factors and psychological well-being among Black college students via a large longitudinal study added to the body of literature on this population. In the next chapter, the researcher discusses the methodology of this study.

Chapter Three

Methodology

Introduction

This chapter reviews the methods used in the examination of the factors that influence psychological well-being. The sections in this chapter include the research design, instruments and sample, the data analysis procedures, limitations of the study, and the summary. This dissertation utilized data collected by the Higher Education Research Institute (HERI) and Cooperative Institutional Research Program (CIRP) in order to gain insight into the activities and behaviors that influence the psychological well-being of Black college students enrolled at colleges and universities. The data were obtained from the 2012 The Freshmen Survey (TFS) and 2013 Your First College Year (YFCY) surveys. The survey data were organized into blocks for testing Astin's Student Involvement Theory using his Input-Environment-Output (I-E-O) model.

The research questions addressed by this study were as follows:

1. How does psychological well-being among Black college students vary, if at all, by gender, first-generation status, spirituality, academic performance, and satisfaction with the college experience?
2. What input characteristics, if any, predict psychological well-being among Black college students?
3. What between-college characteristics, if any, predict psychological well-being among Black college students?
4. What college environment factors, if any, predict psychological well-being among Black college students?

5. What intermediate educational outcome characteristics, if any, predict psychological well-being among Black college students?

Research Design

The study used a quantitative, non-experimental correlational design to examine the impact of college on Black students' psychological well-being. This design was a fitting choice for this study based on Creswell and Creswell (2018) explanation of correlational research that indicates this type of research is used when one seeks to relate two or more variables to see if they influence each other. In other words, in this type of study, the researchers do not attempt to control or manipulate the variables as in an experiment; instead they relate, using the correlation statistic, two or more variables.This study examined the relationships between demographics, student experiences, and activities with the outcome variable, psychological well-being, by performing tests of group mean differences and multiple regression.

The goal of multiple regression is to produce a model in the form of a linear equation that identifies the best weighted combination of predictor variables in the study to optimally predict the outcome or criterion variable (Meyers, Gamst, & Guarino, 2016). Stepwise regression analysis was the specific multiple regression technique used in this study. Stepwise linear regression is a purely mathematical method of regressing multiple variables while simultaneously removing those that are less important. Stepwise regression essentially does multiple regression a number of times, each time removing the weakest correlated variable. At the end, the researcher is left with the variables that explain the distribution best. The only requirements are that the data are normally

distributed and that there is no correlation between the independent variables, known as collinearity (Meyers et al., 2016).

Stepwise regression analysis was selected for this study because other studies predicting psychological well-being utilized the same statistical technique. For example, Burris et al. (2009) researched factors associated with psychological well-being and distress of university students used a stepwise regression approach. Conley et al. (2013) used stepwise regression to predict the benefits of engagement in a psychosocial wellness seminar on psychological well-being. Vrangalova (2015) examined the role of self-determination in hook-up motivation on psychological well-being among students using stepwise regression. Ridner et al. (2016) examined predictors associated with psychological well-being among college students using stepwise regression.

The Instruments and Sample

This study used longitudinal national data sample from the 2012 The Freshmen Survey (TFS) and 2013 Your First College Year (YFCY) survey of the Cooperative Institutional Research Program (CIRP). The CIRP is a national longitudinal study of American higher education system, and the Higher Education Research Institute (HERI) at the University of California at Los Angeles manages the survey program.

Background of the instruments. The CIRP Freshman Survey has been administered since 1966. It is designed for administration to incoming first-year students before they start classes, as early as March and as late as October. Most campuses conduct the survey during orientation. Traditionally a paper survey, the CIRP Freshman survey is also available as a web survey. The instrument collects extensive information

that allows for a snapshot of what incoming students are like before they experience college. Key sections of the survey examine (HERI, 2017a):

- Established behaviors in high school
- Academic preparedness
- Admissions decisions
- Expectations of college
- Interactions with peers and faculty
- Student values and goals
- Student demographic characteristics
- Concerns about financing college

The Your First College Year Survey (YFCY) was established in 2000. The YFCY Survey is the first national survey designed specifically to assess the academic and personal development of students over the first year of college. Developed through a collaboration between HERI and the Policy Center on the First Year of College at Brevard College, YFCY enables institutions to identify features of the first year that encourage student learning, involvement, satisfaction, retention and success, thereby enhancing first-year programs and retention strategies at campuses across the country. As such, YFCY collects information on a wide range of cognitive and affective measures, providing comprehensive institutional and comparative data for analyses of persistence, adjustment, and other first-year outcomes. Further, YFCY was designed as a follow-up survey to the annual CIRP Freshman Survey and allows for longitudinal research on the first year of college. The YFCY is administered by paper or online survey from March-June to facilitate surveying freshmen at the end of their first college year (HERI, 2017e).

Reliability. Reliability refers to the accuracy of a given measurement. A reliable survey question, then, is one that yields similar results when administered repeatedly to similar samples or populations. Put simply, reliable instruments are consistent and dependable. Reliability is an estimate of the amount of error in a measurement. In technical terms Cohen and Swerdlik (2017) describe reliability as a proportion that indicates the ratio between the true score variance on a test and the total variance. The total observed variance in a measure is the sum of the true variance and the error variance. The closer the total observed variance is to the true variance among survey responses, the smaller the error and the more reliable the instrument (Cohen & Swerdlik, 2017)

According to HERI, since the CIRP Freshman Survey has been administered for over 50 years, it is possible to observe the stability of survey questions administered to different cohorts year after year. The vast majority of CIRP Freshman Survey questions exhibit a great deal of stability over time. In other words, in repeated trials the aggregate results remain very similar (allowing for modest fluctuations due to sampling error). Changes that are observed do not represent wild or random fluctuations, but can be linked to temporal trends or to real and meaningful exogenous shocks (e.g., the events of September 11th). While nothing can be done to eliminate fluctuations caused by sampling error, several factors help ensure that such effects are minimized. Nearly 90 percent of the institutions in the CIRP Freshman Survey sample, for example, are repeat participants. This helps to ensure that the sample is highly consistent from year to year (HERI, 2017b).

HERI performed a "split-half" reliability analysis to determine reliability coefficients for the items on the Your First College Year (YFCY) survey instrument. HERI opted to treat institutions, rather than individuals, as the unit of analyses, since YFCY data are most often reported as national or institutional aggregates (e.g., the percentage of first-year students that are satisfied with college or agree with a particular value statement). Therefore, HERI randomly divided respondents into two groups per institution, calculated item-by-item means for each group, and then calculated reliability coefficients for all items by correlating the means across the institutional sub-samples. The reliability coefficients ranged from .10 to .97 with an average reliability coefficient of .56. These findings suggest that the YFCY instrument is moderately reliable, although these statistics should be viewed as conservative estimates given the generally small respondent counts at the pilot institutions included in these analyses, as well as the small number of pilot institutions themselves (HERI, 2017d).

Validity. Validity, by contrast, refers to whether a given survey question actually taps into the true underlying concept it attempts to measure (Cohen & Swerdlik, 2017). In other words, how well does the measure correlate with some unknown underlying 'reality'? Factor analysis is one way for researchers to test the validity of certain constructs. By clustering related items together in scales or indices, for example, researchers can examine how well those related items 'hold together' in a statistical sense (this 'scale reliability' is most commonly measured using Cronbach's Alpha or measured using factor loadings derived from factor analyses). In general, validity analyses assess the extent to which an instrument measures what it purports to measure (Cohen & Swerdlik, 2017).

While HERI had not performed in-depth factor analysis for every item on the CIRP Freshman Survey, several published works had investigated the matter (HERI, 2017b). For example, In What Matters in College, (Astin, 1993) 'student types' were constructed based on select items from the CIRP Freshman Survey (e.g., the leader, the scholar, the hedonist, etc). Astin found that the 'student types' held together quite well with most of the scale reliability coefficients in excess of .70 (Astin, 1993).

As for predictive validity, there are numerous books and journal articles that demonstrate the predictive power of all of the student surveys under the Cooperative Institutional Research Program, which includes the Freshman Survey, YFCY, and the College Student Survey (CSS) (HERI, 2017b). Therefore, with respect to the YFCY instrument, HERI staff focused on two other measures of validity: construct validity and content validity. In these assessments of validity, the unit of analyses was the student rather than the institution.

According to Cohen and Swerdlik (2017), construct validity refers to the degree to which a measure actually assesses the underlying theoretical construct it is supposes to assess. To evaluate the construct validity of the YFCY instrument, HERI staff conducted a principal components factor analysis of all of the items on the survey to determine if survey items that seem to "fit together" on the surface actually do cluster statistically. In these analyses, fourteen factors were extracted and rotated using varimax rotation techniques. Even after dropping survey items that loaded at less than .40, over 100 items from the YFCY instrument were included in these factors. Chronbach's alpha values ranged from .31 to .89. Overall, the variables group together in ways that was anticipated. Similar factor analyses were repeated on 2002 YFCY data to yield 19 factors

that contained over 100 items from the instrument (Chronbach's alpha values ranging from .42 to .83) and on 2003 YFCY data resulting in 23 factors containing nearly 120 measures from the instrument (Cronbach's alpha values ranging from .50 to .86). These results indicate that the YFCY instrument appears to measure several constructs that are intuitively logical (HERI, 2017d).

Content validity refers to how well an instrument's items sample the following: behavioral representative of the universe of behavior the test was designed to sample (Cohen & Swerdlik, 2017). To assess content validity, it is recommended to rely on a panel of experts who are familiar with the constructs that the survey measures. The experts were second-year students at UCLA who had completed their first year of college in Spring 2001. These students were invited to participate in one of three focus groups. In each focus group, participants were asked to complete a set of survey questions and then asked to reflect on the clarity and relevance of each question and stem. Additionally, participants were asked to explain their understanding of the response options. Overall, the feedback from students in these focus groups indicated a high degree of content validity for the YFCY instrument (HERI, 2017d).

Population and sample. In regards to the data used in this study, the CIRP targeted higher education institutions listed in the 2012 Opening Fall Enrollment files of the United States Department of Educations Integrated Postsecondary Education Data System. This population did not include most proprietary, vocational, special, or semi-professional institutions. In order to be included in the dataset, an institution had to have at least 25 first-time full-time students. Of the approximately 2,700 eligible institutions in 2012, the 2012 TFS was collected from 234,338 first-time, full-time students at 649

colleges and universities. The CIRP 2012 Freshmen Survey was administered at the beginning of the first year as a pretest for a longitudinal assessment of college impact on students. The survey is available at https://heri.ucla.edu/instruments/. The 2012 TFS examined students' characteristics prior to exposure to substantial college experiences. The survey included student demographic information, high school experiences, academic and career plans, and values and beliefs.

The 2013 YFCY was administered at the end of a student's first year of college. The survey is available at https://heri.ucla.edu/instruments/. The dataset contained responses from 18,010 first-time, full-time students from 68 colleges and universities across the United States. This follow-up survey asked similar questions that were measured in the 2012 TFS survey, such as academic and vocational goals and aspirations, values and beliefs as well as questions regarding collegiate experiences (e.g., faculty-to-student interactions, student-to-student interactions, extracurricular activities). The sample for this study was restricted to the 1,094 Black students who completed both the 2012 The Freshmen Survey and the 2013 Your First College Year survey.

Variable Selection

The I-E-O model provided an appropriate framework for understanding Black college students' psychological well-being. As discussed in the previous chapter, the literature on Black college students' psychological well-being indicated that college environments and students' experiences affect students' mental health outcomes. The conceptual model for this dissertation research is in the figure below.

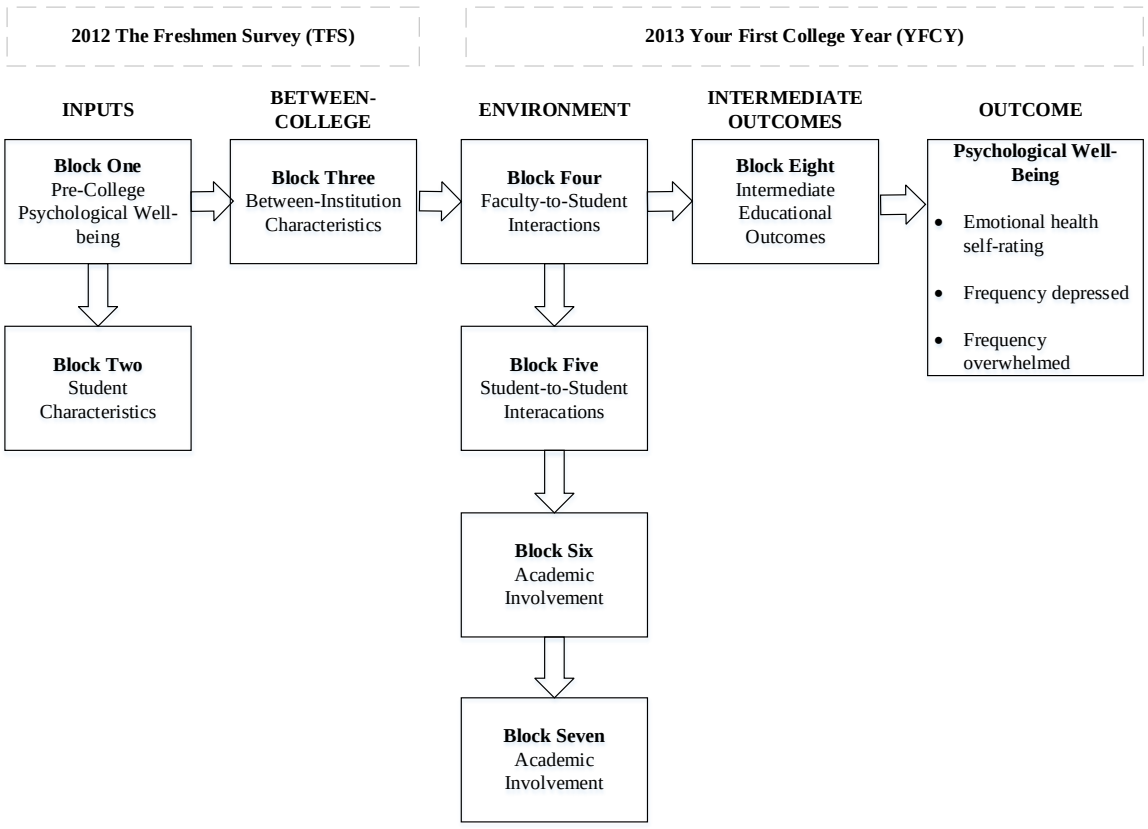

Figure 2. Comprehensive Conceptual Model to Examine Psychological Well-Being

In the present study, student' demographics, high school experiences, and past experiences of psychological well-being (i.e., feeling overwhelmed, feeling depressed, and self-rated emotional health) were examined as input variables pulled from the TFS. Between-college variables were items related to institutional control, type, and selectivity taken from the TFS. Black student experiences (i.e., faculty-to-student interactions, student-to-student interactions,, academic involvement, and non-academic involvement) were conceptualized as environmental variables from the YFCF survey.

Dependent variable. Sax et al. (2004) noted in their study of emotional health among first-year college students that a precursor to emotional health is psychological well-being, as measured by feelings of depression, isolation, loneliness, worry, self-rated emotional health, and being unmotivated had a Cronbach's alpha of .71. An empirical

study on psychological well-being and distress of college students created a construct of psychological well-being that included anxiety, depression, loss of behavioral or emotional control, and general positive affect with a Cronbach's alpha of .82 (Burris et al., 2009). Bowman and Small's (2012) study on minority students' religious affiliation and well-being derived its psychological well-being construct using four CIRP survey items: self-rated emotional health, stress and anxiety, feeling overwhelmed, and feeling depressed with a Cronbach's alpha of .67 (Bowman & Small, 2012). Carton and Goodboy (2015) study on college students' psychological well-being and interaction involvement in the class operationalized psychological well-being by measuring depression, anxiety, and stress with a Cronbach's alpha of .92. Based on the review of past research that operationalized psychological well-being in studies on college students, common items included in the construct were depression, stress, anxiety, and emotional health.

The outcome variable was measured in the YFCY by asking respondents to answer two questions reflecting on each since entering college: "Felt depressed" and "Felt overwhelmed by all you had to do." Students were given the ordinal response choices of (1) Not at all, (2) Occasionally, (3) Frequently. In addition to this question, students were asked to self-rate their emotional health with ordinal scale (1) lowest 10%, (2) below average, (3) average, (4) above average, (5) highest 10%. The researcher reverse coded "Felt depressed" and "Felt overwhelmed by all you had to do" as (1) frequently and (3) not at all in order to be in alignment with the survey item on emotional health, where a higher score stands for a higher rate of positive psychological well-being. Because these items did not use the same scale, each item was standardized.

All survey items were summed for each respondent providing a single scale score. The Cronbach's alpha for psychological well-being was calcuated for the 2013 YFCY.

Independent variables. The literature on the topic of student involvement and psychological well-being provided the basis for the inclusion of 109 items from the TFS and YFCY survey instrument as independent variables for this study. Based on the I-E-O model, the input variables were entered into the analysis first since they may influence the environmental variables or the outcome variable.

Block one of the conceptual model contained the pre-college psychological well-being for incoming students. Because these items do not use the same scale, each item was standardized. All survey items were summed for each respondent providing a single scale score for pre-college psychological well-being. Table 1 lists the variables and recoded variable code changes, if needed, for each item that made up the pre-college psychological well-being construct.

Table 1

Block One Pre-College Psychological Well-Being Variables

Variable Code	Variable Description	Recoded Variable Code
ACT10_TFS	Act in Past year: Felt overwhelmed by all I had to do	ACT10_TFS_REC
ACT11_TFS	Act in Past year: Felt depressed	ACT11_TFS_REC
RATE08_TFS	Self Rating: Emotional health	

Block two of the conceptual model contained additional input variables related to incoming charateristics of students. Table 2 lists the variables and recoded variable code changes, if needed.

Table 2

Block Two Students' Background Characteristics

Variable Code	Variable Description	Recoded Variable Code
FIRSTGEN_TFS	First-generation status based on parent(s) with less than 'some college'	FIRSTGEN_TFS_DUM
INCOME_TFS	What is your best estimate of your parents' income?	INCOME_TFS_DUM
SEX_TFS	Your sex:	SEX_TFS_DUM
NATENGSP_TFS	Is English your native language?	NATENGSP_TFS_DUM
PARSTAT_TFS	Are your parents alive? Divorced?	PARSTAT_TFS_DUM
HSGPA_TFS	What was your average grade in high school?	HSGPA_TFS_DUM
RATE17_TFS	Self-Rating: Spirituality	

Block three of the conceptual model contained the characteristic of institutions that vary from one to another. Table 3 lists the variables and recoded variable code changes, if needed.

Table 3

Block Three Between-Institutional Characteristics

Variable Code	Variable Description	Recoded Variable Code
HERIREG	HERI Region	HERIREG_DUM
HBCU	HBCU Flag	HBCU_DUM
SELECTIVITY	Institution Selectivity	
INSTTYPE	Institution Type	INSTTYPE_DUM
INSTCONT	Institution Control	INSTCONT_DUM

Block four of the model contained survey items related to faculty-to-student interactions. Table 4 lists the variables and recoded variable code changes, if needed.

Table 4

Block Four Faculty-to-Student Interactions

Variable Code	Variable Description	Recoded Variable Code
INTACT1	Interact: Faculty during office hours	INTACT1_DUM
INTACT2	Interact: Faculty outside of class or office hours	INTACT2_DUM
AFFACT09	Felt: That faculty provided me with feedback that helped me assess my progress in class	
AFFACT11	Felt: That faculty encouraged me to ask questions and participate in discussions	
EASY1	Ease: Understand what your professors expect of you academically	
ACT06	Act: Been a guest in a professor's home	
ACT13	Act: Asked a professor for advice after class	
COLOPN03	Opinion: Faculty showed concern about my progress	
COLOPN07	Opinion: Faculty empower me to learn here	
COLOPN11	Opinion: Faculty believe in my potential to succeed academically	
COLOPN14	Opinion: In class, I have heard faculty express stereotypes based on race/ethnicity, gender, sexual orientation, or religious	COLOPN14_REC

Variable Code	Variable Description	Recoded Variable Code
COLOPN16	Opinion: Faculty encouraged me to meet with them outside of class	
COLOPN19	Opinion: At least one faculty member has taken an interest in my development	
CLSACT06	Act in Class: Worked on a professor's research project	
CLSACT09	Act in Class: Received from your professor advice or guidance about your educational program	

Block five of the conceptual model contained survey items related to student-to-student interactions. Table 5 lists the variables and recoded variable code changes, if needed.

Table 5

Block Five Student-to-Student Interactions

Variable Code	Variable Description	Recoded Variable Code
CLSACT12	Act in Class: Received advice/counseling from another student	
INTACT4	Interact: Close friends at this institution	INTACT4_DUM
EASY5	Ease: Develop close friendships with other students	
ACT05	Act: Studied with other students	
COLACT18	Act in College: Had a roommate of a different race/ethnicity	COLACT18_DUM
CLSACT08	Act in Class: Had difficulty getting along with your roommate(s)/housemate(s)	CLSACT08_REC
CLSACT16	Act in Class: Worked with classmates on group projects during class	

Variable Code	Variable Description	Recoded Variable Code
CLSACT17	Act in Class: Worked with classmates on group projects outside of class	
CRI_POSITIVE	YFCY Positive Cross-Racial Interaction Score	
CRI_NEGATIVE	YFCY Negative Cross-Racial Interaction Score	

Block six of the model contained survey items related to academic involvement activities. Table 6 lists the variables and recoded variable code changes, if needed.

Table 6

Block Six Academic Involvement

Variable Code	Variable Description	Recoded Variable Code
AFFACT10	Felt: That my contributions were valued in class	
CLSACT02	Act in Class: Contributed to class discussions	
CLSACT03	Act in Class: Discussed course content with students outside of class	
CLSACT15	Act in Class: Instant messaged/texted during class	CLSACT15_REC
COLACT12	Act in College: Failed one or more courses	COLACT12_DUM
EASY2	Ease: Develop effective study skills	

Variable Code	Variable Description	Recoded Variable Code
EASY3	Ease: Adjust to the academic demands of college	
EASY4	Ease: Manage your time effectively	
HPW01	Hours per Week: Attending classes/labs	HPW01_DUM
HPW02	Hours per Week: Studying/homework	HPW02_DUM
INTACT3	Interact: Academic advisors/counselors	INTACT3_DUM
MNDHAB04	Habits of Mind: Revise your papers to improve your writing	
MNDHAB01	Habits of Mind: Ask questions in class	
ACAD_DISENGAGEMENT	YFCY Academic Disengagement Score	

Block seven of the model contained survey items related to non-academic involvement activities. Table 7 lists the variables and recoded variable code changes, if needed.

Table 7

Block Seven Non-Academic Involvement

Variable Code	Variable Description	Recoded Variable Code
ACT01	Act: Attended a religious service	
ACT07	Act: Smoked cigarettes	ACT07_REC
ACT08	Act: Drank beer	ACT08_REC

Variable Code	Variable Description	Recoded Variable Code
ACT09	Act: Drank wine or liquor	ACT09_REC
ACT12	Act: Performed volunteer work	
ACT16	Act: Socialized with someone of another racial/ethnic group	
ACT22	Act: Maintained a healthy diet	
ACT23	Act: Had adequate sleep	
CLSACT11	Act in Class: Went home for the weekend	CLSACT11_REC
COLACT04	Act in College: Participated in student government	COLACT04_DUM
COLACT06	Act in College: Joined a social fraternity or sorority	COLACT06_DUM
COLACT07	Act in College: Played club, intramural, or recreational sports	COLACT07_DUM
COLACT08	Act in College: Played intercollegiate athletics (e.g., NCAA or NAIA-sponsored)	COLACT08_DUM
COLACT09	Act in College: Participated in student groups/clubs	COLACT09_DUM
COLACT10	Act in College: Sought personal counseling	COLACT10_DUM
COLACT11	Act in College: Strengthened your religious beliefs/convictions	COLACT11_DUM
COLACT13	Act in College: Participated in leadership training	COLACT13_DUM
COLACT23	Act in College: Been a leader in an organization	COLACT23_DUM
COLACT29	Act in College: Participated in an ethnic/racial student organization	COLACT29_DUM

Variable Code	Variable Description	Recoded Variable Code
DRINKS	How many times in the past two weeks, if any, have you had five or more alcoholic drinks in a row?	DRINKS_DUM
HPW03	Hours per Week: Socializing with friends	HPW03_DUM
HPW04	Hours per Week: Exercising or sports	HPW04_DUM
HPW05	Hours per Week: Partying	HPW05_DUM
HPW06	Hours per Week: Working (for pay) on campus	HPW06_DUM
HPW07	Hours per Week: Working (for pay) off campus	HPW07_DUM
HPW08	Hours per Week: Student clubs and groups	HPW08_DUM
HPW09	Hours per Week: Watching TV	HPW09_DUM
HPW10	Hours per Week: Household/childcare duties	HPW10_DUM
HPW11	Hours per Week: Commuting	HPW11_DUM
HPW12	Hours per Week: Online social networks (MySpace, Facebook, etc.)	HPW12_DUM
INTACT5	Interact: Close friends not at this institution	INTACT5_DUM
INTACT6	Interact: Your family	INTACT6_DUM
INTACT8	Interact: Close friends from your high school	INTACT8_DUM

Block eight of the conceptual model contained survey items related to intermediate educational outcomes. Table 8 lists the variables and recoded variable code changes, if needed.

Table 8

Block Eight Intermediate Educational Outcomes

Variable Code	Variable Description	Recoded Variable Code
AFFACT01	Felt: Lonely or homesick (reworded as Felt: Popular or included)	AFFACT01_REC
AFFACT02	Felt: Isolated from campus life (reworded as Felt: Encompassed in campus life)	AFFACT02_REC
AFFACT03	Felt: Unsafe on this campus	AFFACT03_REC
COLOPN01	Opinion: I have felt discriminated against at this institution based on my race/ethnicity, gender, sexual orientation, or	COLOPN01_REC
COLOPN04	Opinion: There is a lot of racial tension on this campus	COLOPN04_REC
COLOPN05	Opinion: I have been able to find a balance between academics and extracurricular activities	
COLOPN12	Opinion: My college experiences have exposed me to diverse opinions, cultures, and values	
CURRGPA	What is your overall grade average (as of your most recently completed academic term)?	CURRGPA_DUM
DIVRATE1	Diversity Rating: Ability to see the world from someone else's perspective	
DIVRATE2	Diversity Rating: Tolerance of others with different beliefs	
DIVRATE3	Diversity Rating: Openness to having my own views challenged	
DIVRATE4	Diversity Rating: Ability to discuss and negotiate controversial issues	

Variable Code	Variable Description	Recoded Variable Code
DIVRATE5	Diversity Rating: Ability to work cooperatively with diverse people	
FINCON	Do you have any concern about your ability to finance your college education?	FINCON_DUM
PLAN	What do you think you will be doing in Fall 2013?	PLAN_DUM
RATE07	Self Rating: Drive to achieve	
RATE18	Self Rating: Spirituality	
RATE19	Self Rating: Understanding of others	
SATIS_OVERALL	YFCY Overall Satisfaction Score	
SENSE_BELONG	YFCY Sense of Belonging Score	

Data Analysis Procedures

A secondary analysis was performed on data obtained from the Higher Education Research Institute (HERI). Data for this study was drawn from the 2012 TFS and corresponding 2013 YFCY Survey. The longitudinal data set contained 1,094 Black students who completed both surveys.

Internal Review Board. Once the dissertation proposal was approved by the committee, the reseacher submited the overview of the study and the appropriate paperwork to the Univerity of Toledo's Internal Review Board (IRB) for expedited review. This study was approved by the IRB and designated as exempt research (See Appendix A).

Higher Education Research Institute. The researcher purchased survey data from the Higher Education Research Institute (HERI) office for analysis in this

dissertation. HERI only provides investigators with data files that do not contain individual or institutional identifiers. Requests for entire datasets or for entire question blocks are not typically granted. The variable list was limited to the variables that were required in order to execute this planned study. Datasets that were available for use by scholars outside HERI were typically those that were at least three years old (HERI, 2017c). Although the most recently available dataset was the 2013 The Freshmen Survey (TFS) and 2014 Your First College Year (YFCY) survey, the researcher decided to use the 2012 TFS and 2013 YFCY survey instead, since the sample size for Black students was greater in the latter surveys.

To gain access to HERI survey data, the researcher was required to submit a written 3-4 page proposal for approval. The proposal demonstrated a clear idea of the specfic project the researcher wished to pursue, including the theoretical framework, reference to literature as appropriate, and research questions and/or hypotheses. The researcher submitted a data access variable list that included the dependent variable and all independent variables. The methods of analyses to be performed were explained, and the plan for dissemination of the results was included. A letter of support for the research project from the dissertation chair accompanied the proposal. Also, the dissertation chair signed the data request cover page. After the data access proposal was approved, the researcher received a SPSS data file through the secure HERI portal. At that point, the researcher was billed $600 for the data. The approval letter to use the HERI data is provided in Appendix B.

Data preparation. The SPSS data file was downloaded from the secure HERI portal. The dataset prepared by HERI staff arrived well labeled. Those variables needing

to be recoded were listed with their recoded variable codes (with extension _REC) in Tables 1, 3, 5, 6, 7, and 8. There were some categorical variables that needed to be recoded by the researcher into dummy variables to make sense in the regression analysis. Those variables are listed with their recoded variable codes (with extension_DUM) in Tables 2, 3, 4, 5, 6, 7, and 8.

For this study, the method of handling missing values during regression analysis was replacement of missing values with the mean for that item. The researcher ensured that the values were missing at random and that subsituting the mean for missing cases did not inadvertently impact a class of participants.

Testing assumptions. In order to generalize the results of a multiple linear regression analysis to the population, key assumptions were tested and demonstrated as true. One important assumption was that all independent variables had a linear relationship with the dependent variable. In other words, Meyers et al. (2016) stated that the assumption of linearity is that all variables are related to each other in a straight line. Based on this assumption, two-tailed Pearson correlation coefficients were conducted between the predictor variables and the criterion variable. The Pearson *r* assessed the degree of linear relationship observed between two variables. All variables not significantly correlated with the criterion variable were reviewed to determine whether to keep the variable or eliminated it from the study. The results of those correlation analyses were discussed in Chapter 4.

Another key assumption of multiple linear regression is there is no multicollinearity in the data. Meyers et al. (2016) states that multicollinearity occurs when the predictor variables are too highly correlated with each other. Multicollinearity

was checked by running two-tailed Pearson's bivariate correlations among all independent variables; those with correlation coefficients with large magnitudes indicated that the variables were highly correlated and/or redundant. If either data issue existed, those variables were measuring the same elements, and including them in the same analysis would be unnecessary. Meyers et al. (2016) suggested eliminating one of the two variables with correlations of .80 or greater. The results of those correlation analyses were discussed in Chapter 4.

Statistical analysis. The researcher performed single variable descriptive analyses to obtain the charateristics of the sample. To examine the first research question – how does psychological well-being among Black college students vary by gender, first-generation status, spirituality, academic performance, and satisfaction with the college experience?, a descriptive analysis was performed using cross-tabulations. Cross-tabulations explored any relationships between student psychological well-being and students' characteristics/college experiences. In other words, cross-tabulation examined how the psychological well-being varied by each variable (i.e., gender, first-generation status, spirituality, academic performance, and satisfaction with the college experience). To perform cross-tabulations, students' psychological well-being was grouped into three categories based on their scale score: low, medium, and high. Each of the independent variables was grouped into low, middle, and high categories, except gender and first-generation status. Cross-tablulations with chi-square tests of independence were conducted between the psychological well-being categories and each categorical independent variable. For each significant relationship, a T-Test or One-Way ANOVA, including post-hoc testing of all statistically significant results, was performed.

In investigating the remaining research question - what input variables, between-college characteristics, environmental factors and collegiate experiences, or intermediate educational outcome characteristics predict psychological well-being among Black college students? – the researcher used the I-E-O model by (Astin, 1993) to design a blocked hierarchical regression. Variables were entered into the regression model in the blocks for inputs, between-college, environments, and intermediate educational outcomes. Variables were selected based on I-E-O model framework, involvement theory, and existing literature related to students' experiences on psychological well-being and college experiences. By controlling for these entering variables in each block, the analysis examined the associations between the criterion variable and multiple independent variables. With this regression analysis, the researcher explored the amount of additional variance input variables, between-college variables, environmental variables, and intermediate educational outcome variables contribute to Black student psychological well-being after controlling for input variables.

Limitations of the Study

Before drawing conclusions about psychological well-being of college students, limitations and assumptions were discussed. There are some limitations to this study design.

Validity threats. Non-experimental designs may have internal and external threats to validity. Internal validity relates to the inferences drawn about the cause and effect relationships between independent and dependent variables (Creswell & Creswell, 2018). Non-experimental research designs do not allow the researcher to control the assignment of independent variables, which impedes efforts to make assumptions about

causation (Meyers et al., 2016). Another threat to internal validity in this study was the selection of participants. It is up to each student to choose to participate in the study making it a self-selection process. These self-selected students may having higher levels of psychological well-being overall compared to non-participating students, which may have impacted the study results. External validity relates to the causation being generalizable to other persons, settings, and measures (Creswell & Creswell, 2018). This study used a sample of convenience, any survey responder identifying as Black who completed both the 2012 TFS and 2013 YFCY was selected in the sample. Therefore, the results should be used with caution, as advised by researchers (Meyers et al., 2016).

Limitations. This study was a secondary analysis of a national dataset, which provided a very rich source of information; however, it also provided a set of limitations. The dataset from the Higher Education Research Institute, and the Cooperative Institutional Research Program was made available to researchers —no sooner than three years after institutional reports were mailed to participating institutions (HERI, 2017c). In other words, the dataset provided to the researcher was several years old and it was assumed that results from the study would be still applicable to higher education today. Furthermore, since the researcher used a national surveys that had already been administered, only the variables collected were analyzed in this study. There may be variables, unexamined in the survey, that may contribute to explaining the outcome variable. This research made use of self-reported data to measure psychological well-being. It was assumed that students are credible reporters of their activities and how much they have benefited from their higher education experience. It should also be noted that the researcher was not a mental health professional and worked in close consultation

with a doctoral-level mental health clinician while conducting this study and reporting its findings.

Summary

This chapter provided an overview of the methods used in this dissertation studying the factors that impact psychological well-being in the first-year of college. The sections included in this chapter are the research design, the instrument and sample, the data analysis procedures, and limitations. The next chapter discusses the results of the data analyses.

Chapter Four

Results

Introduction

In this chapter, the results of the statistical analyses were presented. Restating from previous chapters, the purpose of this study was to explore the relationship between various collegiate experiences and psychological well-being among Black students using longitudinal data derived from the Cooperative Institutional Research Program's (CIRP) 2012 The Freshmen Survey (TFS) and 2013 Your First College Year (YFCY) survey.

The research questions driving this study were as follows:

1. How does psychological well-being among Black college students vary, if at all, by gender, first-generation status, spirituality, academic performance, and satisfaction with the college experience?
2. What input characteristics, if any, predict psychological well-being among Black college students?
3. What between-college characteristics, if any, predict psychological well-being among Black college students?
4. What college environment factors, if any, predict psychological well-being among Black college students?
5. What intermediate educational outcome characteristics, if any, predict psychological well-being among Black college students?

This chapter first presented and discussed demographic information about the sample. Second, the statistical analyses that were employed are discussed in some detail. Finally, the results of the analyses are presented.

Description of the Sample

As mentioned in Chapter Three, the Cooperative Institutional Research Program (CIRP) datasets used for this study are a subset of the national datasets from the 2012 administration of The Freshmen Survey (TFS) and 2013 Your First College Year (YFCY) survey. The CIRP targeted higher education institutions listed in the 2012 Opening Fall Enrollment files of the United States Department of Educations Integrated Postsecondary Education Data System. This population did not include most proprietary, vocational, special, or semi-professional institutions. In order to be included in the dataset, an institution had to have at least 25 first-time, full-time students. Of the approximately 2,700 eligible institutions in 2012, the 2012 TFS was collected from 234,338 first-time, full-time students at 649 colleges and universities. The 2013 YFCY was administered at the end of a student's first year of college. The dataset contained responses from 18,010 first-time, full-time students from 68 colleges and universities across the United States. The sample for this study was restricted to the 1,094 Black students who completed both The 2012 Freshmen Survey and the 2013 Your First College Year survey. The sample was further limited by those who responded to all three survey items that made up the construct of psychological well-being. The final sample size was 899.

Institutions. The institutional types in the sample included 2-year, 4-year, and university. The breakdown by count and percentage is found in Table 9. The vast majority of respondents were at 4-year non-HBCU private colleges. Most students were enrolled at institutions in the east, followed by those located in the south.

Table 9

Institutional Characteristics Included in the Sample

	N	% of Sample
Institutional Type		
2-year	20	2%
4-year	628	70%
University	251	28%
Control		
Public	168	19%
Private	731	81%
HBCU-status		
HBCU	81	9%
Not HBCU	818	91%
Region		
East	411	46%
Midwest	119	13%
South	193	21%
West	176	20%

Students. Table 10 provides the demographic information for the sample of the research study. This table indicates that most of the students in the sample identified as female and with non-first-generation student status. Furthermore, most reported average or above spirituality when compared to their peers. The majority had high school grade point averages of B or higher, with the vast majority having average or low scores on overall satisfaction with the college experience. The overall satisfaction with the college experience low, average, and high group assignments were based on a score computed by HERI. The groups were determined after computing a composite score of satisfaction ratings with the institution on each of these aspects of college life: overall academic experience, overall quality of instruction, and overall college experience, plus the

response to “if you could make your college choice over, would you still choose to enroll at your current (or most recent) college?” Those in the high group demonstrated high scores on college satisfaction items, while those in the low group reported lower scores on college satisfaction items, and those in the middle were in the average group. Cross-tabulations with chi-square analyses are presented later in this chapter to demonstrate how psychological well-being varies by each demographic variable. For each significant relationship, a T-Test or One-Way ANOVA, including post-hoc testing of all statistically significant results, are also provided.

Table 10

Demographics of Student Sample

	N	% of Sample
Sex		
Female	577	64%
Male	317	35%
Unknown	5	1%
First-Generation Status		
First-Generation	156	18%
Non-First-Generation	721	80%
Unknown	22	2%
Spirituality		
Lowest 10%	39	4%
Below Average	82	9%
Average	348	39%
Above Average	238	26%
Highest 10%	185	21%
Unknown	7	1%
Academic Performance – High School		
A	389	43%
B	464	52%
C	33	4%
Unknown	13	1%
Satisfaction with College		
Low Score	369	41%
Average Score	357	40%
High Score	172	19%
Unknown	1	<1%

Summary of the descriptive data. The brief summary of the characteristics of the national data set, as previously discussed, indicated that the institutions included in this sample represented a highly elevated proportion of private 4-year colleges located in

the east. The typical student was an academically astute non-first-generation female with average to above average spirituality, and low to average college satisfaction. To control for the effect that the demographic and institutional characteristics had on the outcome variable in the study, the demographic variables were included in the study as student characteristics, with institutional variables blocked as between-institution characteristics. Cross-tabulations are presented later in this chapter to demonstrate how psychological well-being varies by each demographic variable.

Statistical Procedures

This section provides a brief overview of the statistical procedures that were conducted during this study and then the results are presented.

Scale reliability. The outcome variable was measured in the YFCY by asking respondents to answer two questions reflecting on each since entering college: "Felt depressed" and "Felt overwhelmed by all you had to do." Students were given the ordinal response choices of (1) Not at all, (2) Occasionally, (3) Frequently. In addition to this question, students were asked to self-rate their emotional health using an ordinal scale (1) lowest 10%, (2) below average, (3) average, (4) above average, (5) highest 10%. The researcher reverse coded "Felt depressed" and "Felt overwhelmed by all you had to do" as (1) frequently and (3) not at all in order to be in alignment with the survey item on emotional health, where a higher score stands for a higher rating of positive psychological well-being. Because these items did not use the same scale, each item was standardized by creating z-scores. The three survey items were summed for each respondent providing a single scale score. The Cronbach's alpha for psychological well-being was calculated to be .582. According to (George & Mallery, 2016), this Cronbach's

alpha was considered acceptable, since the measure was made up of just a few survey items, although the value of .582 is relatively low.

Cross tabulations and tests of group means. To perform cross tabulations, the researcher used statistical software to generate cut-off points to create three comparable sized groups (i.e., low, medium, and high) for each of the following: psychological well-being scale, spirituality, and college academic performance. Gender and first-generation status were each grouped into two categories. For overall satisfaction of the college experience, group assignment (i.e., low, medium, high) was determined by HERI based on a participant's construct score in this area. The measure consisted of satisfaction ratings with the institution on each of these aspects of college life: overall academic experience, overall quality of instruction, and overall college experience. The response scale for each item included very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied. The college satisfaction measure also included "if you could make your college choice over, would you still choose to enroll at your current (or most recent) college?" The response options were definitely not, probably not, not sure yet, probably yes, and definitely yes. Table 11 provides the cut-off points used to create categories used in the cross-tabulation analyses. Tables 12 – 16 provide data distributions plus the results of each of the chi-square tests of independence that were performed to examine the relationship between each of the five items and psychological well-being. For each significant relationship, a T-Test or One-Way ANOVA, including post-hoc testing of all statistically significant results, was performed.

Table 11

Items for Cross Tabulation

	Item	Categories
Psychological Well-being	Psychological well-being construct	Lowest thru -.9161602 = Low -.91616021 thru 1.2028229 = Average 1.2028221 thru Highest = High
Gender	Your sex	1 = Male 2 = Female
First-Generation Status	First-generation status based on parent(s) with less than 'some college'	1 = No 2 = Yes
Spirituality	Self Rating: Spirituality	1 or 2 = Low 3 = Average 4 or 5 = High
Academic Performance	What is your overall grade average (as of your most recently completed academic term)?	C or D = Low C+, B-, or B = Average B+, A-, or A/A+ = High
Satisfaction with College	YFCY Overall Satisfaction Score	Low, Average, High group assignment determined by HERI

Table 12 displays the distribution of psychological well-being by gender.

Table 12

Distribution Psychological Well-Being by Gender

		Gender	
		Male (N = 317)	Female (N = 577)
Psychological Well-Being	Low (%)	28.1	39.5
	Average (%)	33.4	28.2
	High (%)	38.5	32.2

Note: X^2 (2, N = 894) = 11.70, p <.01

Table 13 displays the distribution of psychological well-being by first-generation status.

Table 13

Distribution Psychological Well-Being by First-Generation Status

		First-Generation Status	
		Non-First-Generation (N = 721)	First-Generation (N = 156)
Psychological Well-Being	Low (%)	34.7	37.8
	Average (%)	30.2	30.1
	High (%)	35.1	32.1

Note: X^2 (2, N = 877) = .70, p >.05

Table 14 displays the distribution of psychological well-being by spirituality.

Table 14

Distribution Psychological Well-Being by Spirituality

		Spirituality		
		Low (N = 121)	Average (N = 348)	High (N = 423)
Psychological Well-Being	Low (%)	50.4	35.1	31.7
	Average (%)	28.1	30.5	29.8
	High (%)	21.5	34.5	38.5

Note: X^2 (4, N = 892) = 17.39, p <.01.

Table 15 displays the distribution of psychological well-being by academic performance.

Table 15

Distribution Psychological Well-Being by Academic Performance

		Academic Performance		
		Low (N = 87)	Average (N = 394)	High (N = 348)
Psychological Well-Being	Low (%)	50.6	34.3	33.3
	Average (%)	19.5	33.2	27.0
	High (%)	29.9	32.5	39.7

Note: X^2 (4, N = 829) = 15.23, p <.01

Table 16 displays the distribution of psychological well-being by college satisfaction.

Table 16

Distribution Psychological Well-Being by Satisfaction with College

		College Satisfaction		
		Low (N = 369)	Average (N = 357)	High (N = 172)
Psychological Well-Being	Low (%)	46.9	28.0	26.2
	Average (%)	28.7	36.1	19.8
	High (%)	24.4	35.9	54.1

Note: X^2 (4, N = 898) = 64.18, p <.001

Testing assumptions. As mentioned in the previous chapter, in order to make conclusions about the population based on the results of regression analysis, certain assumptions were tested and determined true (Meyers et al., 2016). The results of the two-tailed Pearson correlation that was performed to test for linear relationships indicated 76 of the 240 independent variables (including dummy-coded variables) were related to the dependent variable either positively or negatively at the $p < .05$ level. The 76 remaining variables were next tested for multicollinearity.

The bivariate correlations from the two-tailed Pearson correlations were examined to determine if any two variables were too closely related. Meyers et al. (2016) suggested eliminating one of the two variables with correlations of .80 or greater, and that was used as a guide when examining the correlation coefficients. The results indicated that no two predictor variables used in this study were too highly correlated.

Regression analysis. Once the major assumptions were tested, stepwise regression analysis was performed according to the conceptual framework to determine if

any of the predictor variables had an influence on psychological well-being. Again, for this study, psychological well-being was measured in the YFCY by asking respondents to answer two questions reflecting on each since entering college: "Felt depressed" and "Felt overwhelmed by all you had to do." Students were given the ordinal response choices of (1) Not at all, (2) Occasionally, (3) Frequently. In addition to this question, students were asked to self-rate their emotional health with the ordinal scale (1) lowest 10%, (2) below average, (3) average, (4) above average, (5) highest 10%. The researcher reverse coded "Felt depressed" and "Felt overwhelmed by all you had to do" as (1) frequently and (3) not at all in order to be in alignment with the survey item on emotional health, where a higher score stands for a higher rating of positive psychological well-being. Because these items did not use the same scale, each item was standardized by creating z-scores. The three survey items were summed for each respondent providing a single scale score. A total of 76 independent variables were included in a stepwise regression analysis in eight blocks based on the conceptual framework described in Chapter 3, beginning with pre-college psychological well-being, then student characteristics, followed by between-institution characteristics, next came four involvement blocks, lastly, followed by a block for intermediate education outcomes. The results from the regression analysis are displayed in the following table.

Table 17

Significant Predictor Variables of Psychological Well-Being

				Final Step	
Variable	Block	Zero *r*	Step β	β	*F*
Pre-College Psychological Well-Being	1	.50**	.50***	.33***	287.887***
HERI Region South	3	.12**	.08**	.06*	107.490***
Ease: Develop close friendships with other students	5	.33**	.22***	.09**	66.920***
Act in Class: Received advice/counseling from another student	5	-.16**	-.13***	-.08**	51.871***
Act in Class: Had difficulty getting along with your roommate(s)/house mates(s) (higher score indicates fewer occurrences of conflict)	5	.16**	.08**	.05*	48.040***
Act in College: Sought personal counseling	7	-.26**	-.12***	-.10***	43.284***
Act: Had adequate sleep	7	.18**	.08**	.05*	41.228***

				Final Step	
Variable	Block	Zero *r*	Step β	β	*F*
Felt: Popular or included	8	.44**	.27***	.23***	46.545***
Ease: Adjust to the academic demands of college	8	.32**	.18***	.13***	48.157***
Self Rating: Drive to achieve	8	.24**	.11***	.08**	47.250***
Opinion: I have been able to find a balance between academics and extracurricular activities	8	.32**	.10***	.09**	46.064***
Felt: Encompassed in campus life	8	.39**	.06*	.08*	44.613***
Self Rating: Spirituality	8	.18**	.08*	.06*	42.934***
YFCY Overall Satisfaction Score	8	.30**	.06*	.08*	41.328***
Opinion: My college experiences have exposed me to diverse opinions, cultures, and values	8	.097**	-.06*	-.06*	39.864***

Note: N = 899; R2 = .512; Adjusted R2 = .499; *p < .05; **p < .01; ***p <. 001

Table 18 below lists all significant predictors in order of beta weight strength according to the final step of the regression analysis. This table provides a clear depiction of the strongest predictors in the model.

Table 18

Significant Predictors in Order of Final Step Beta-Weight Strength

Rank	Predictor Variable	Final Step β
1	Pre-College Psychological Well-Being	.33***
2	Felt: Popular or included	.23***
3	Ease: Adjust to the academic demands of college	.13***
4	Act in College: Sought personal counseling	-.10***
5	Ease: Develop close friendships with other students	.09**
6	Opinion: I have been able to find a balance between academics and extracurricular activities	.09**
7	Act in Class: Received advice/counseling from another student	-.08**
8	Self Rating: Drive to achieve	.08**
9	Felt: Encompassed in campus life	.08*
10	YFCY Overall Satisfaction Score	.08*
11	HERI Region South	.06*
12	Self Rating: Spirituality	.06*
13	Opinion: My college experiences have exposed me to diverse opinions, cultures, and values	-.06*

Rank	Predictor Variable	Final Step β
14	Act in Class: Had difficulty getting along with your roommate(s)/housemates(s) (higher score indicates fewer occurrences of conflict)	.05*
15	Act: Had adequate sleep	.05*

Note: N = 899; R2 = .512; Adjusted R2 = .499; *p < .05; **p < .01; ***p <. 001

As mentioned in Chapter Three, the issue of missing data was handled by replacing missing data with the means for each variable, except for the dependent variable. The replacement process was performed as a part of the regression analysis. All 899 cases remained. The stepwise regression analysis produced 23 models where the new independent variable entered as significant each time. However, in the last model, not all variables were significant. The variables that had significant beta (β) weights in the last model are listed in Table 17. The table includes four figures for each of the variables that entered into the last model as significant. The first column of the table indicates the variable, with the second column providing the block in which that variable was entered into the stepwise regression. The third column indicates the Zero *r*, which represents the correlation between that independent variable and psychological well-being. The fourth column provides the step beta (β) weight at the point in which that variable entered in the model as significant. As mentioned above, for each model of the stepwise regression analysis, the most significant predictor variable was added to the model. The step beta (β) was the beta (β) weight that variable had at point-of-entry into the model. The fifth column of Table 17 indicates the beta (β) weight for each independent variable as it is in

the final model. Also for each independent variable, a *F* value is listed, which represents "a ratio of explained variance to unexplained variance" (Meyers et al., 2016).

The adjusted R^2 for the final model is .499, which means that the 23 significant predictor variables explained approximately 50% or half, of the variance in the dependent variable, psychological well-being. According to Meyers et al. (2016), effect sizes are commonly reported in regression analyses in the form of R^2, which is one method to examine variance-accounted-for effect size; however, not at the independent variable level. Furthermore, Meyers et al. (2016) suggest that there are various approaches to gauging the effects of particular variables. One method is to report standardized regression coefficients. The standardized regression coefficients are the final step beta weights provided in Table 17 and Table 18.

Discussion of the Results

In the following sections, the results of the data analyses were examined by research question.

Research question 1. The first research question of this study asked how does psychological well-being among Black college students vary by gender, first-generation status, spirituality, academic performance, and satisfaction with the college experience.

The relationship between gender and psychological well-being was significant, X^2 (2, N = 894) = 11.70, p <.*01*. Responses categories included male and female. An independent-samples t-test was conducted to compare psychological well-being scores for Black males and Black females. There was a significant difference in psychological well-being scores for Black males (*M* =.*38*, *SD* = 2.2) and Black females (*M* = -.*22*, *SD* =

2.2) conditions; t(892) = 3.94, p < .001. These results suggested that Black males had higher psychological well-being scores than Black females.

The relationship between first-generation status and psychological well-being was not significant, X^2 (2, N = 877) = .70, $p > .05$. Response options included first-generation and non-first-generation. There was not a difference in psychological well-being between non-first-generation and first-generation Black college students.

The relationship between spirituality and psychological well-being was significant, X^2 (4, N = 892) = 17.39, $p < .01$. Response categories included low, average, and high spirituality. A one-way between subjects ANOVA was conducted to compare the effect of spirituality on psychological well-being. There was a significant effect of spirituality on psychological well-being at the p < .001 level for [F(2, 889) = 11.77, p < .001]. Post hoc comparisons using Tukey HSD test indicated that the mean score for those with low spirituality (M = -.80, SD = 2.4) was significantly different from those with average spirituality (M = -.08, SD = 2.1). Also, the mean score for those with low spirituality (M = -.80, SD = 2.4) was significantly different from those with high spirituality (M = .28, SD = 2.2). However, the mean score for those in the average spirituality group (M = -.08, SD = 2.1) did not significantly differ from those with high spirituality (M = .28, SD = 2.2). Taken together, these results suggested that spirituality has an effect on psychological well-being. Specifically, the results suggest that those with higher degrees of spirituality had higher levels of psychological well-being.

The relationship between academic performance and psychological well-being was significant, X^2 (4, N = 829) = 15.23, $p < .01$. Response options included low, average, and high academic performance. A one-way between subjects ANOVA was conducted to

compare the effect of academic performance on psychological well-being. There was a significant effect of academic performance on psychological well-being at the $p < .001$ level for [$F(2, 826) = 8.31$, $p < .001$]. Post hoc comparisons using Tukey HSD test indicated that the mean score for those with low academic performance ($M = -.82$, $SD = 2.5$) was significantly different from those with average academic performance ($M = -.03$, $SD = 2.2$). Also, the mean score for those with low academic performance ($M = -.82$, $SD = 2.5$) was significantly different from those with high academic performance ($M = .26$, $SD = 2.2$). However, the mean score for those in the average academic performance group ($M = -.03$, $SD = 2.2$) did not significantly differ from those with high academic performance ($M = .26$, $SD = 2.2$). Taken together, these results suggested that academic performance has an effect on psychological well-being. Specifically, the results suggested that those with higher academic performance had higher levels of psychological well-being.

The relationship between satisfaction with the college experience and psychological well-being was significant, X^2 (4, $N = 898$) = 64.18, $p < .001$. Response categories included low, average, and high satisfaction with the college experience. A one-way between subjects ANOVA was conducted to compare the effect of college satisfaction on psychological well-being. There was a significant effect of college satisfaction on psychological well-being at the $p < .001$ level for [$F(2, 895) = 34.61$, $p < .001$]. Post hoc comparisons using Tukey HSD test indicated that the mean score for those with low college satisfaction ($M = -.67$, $SD = 2.2$), average college satisfaction ($M = .28$, $SD = 2.1$), or high college satisfaction ($M = .84$, $SD = 2.1$) were significantly different from each of the other college satisfaction groups. Taken together, these results

suggested that college satisfaction has an effect on psychological well-being. Specifically, the results suggested that those with higher college satisfaction had higher levels of psychological well-being.

Research question 2. The second research question of this study asked what input characteristics, if any, predict psychological well-being among Black college students. Only one variable, the pre-college psychological well-being, was found to be a significant predictor of psychological well-being in the final regression model. Pre-college psychological well-being was measured in the TFS by asking respondents to answer two questions reflecting on each since entering college: "*Felt depressed*" and "*Felt overwhelmed by all you had to do*." Students were given the ordinal response choices of (1) Not at all, (2) Occasionally, (3) Frequently. In addition to this question, students were asked to *self-rate their emotional health* with an ordinal scale (1) lowest 10%, (2) below average, (3) average, (4) above average, (5) highest 10%. The researcher reverse coded "*Felt depressed*" and "*Felt overwhelmed by all you had to do*" as (1) frequently and (3) not at all in order to be in alignment with the the survey item on emotional health where a higher score stands for a higher rate of positive psychological well-being. Because these items did not use the same scale, each item was standardized. All survey items were summed for each respondent providing a single scale score for pre-college psychological well-being.The pre-college psychological well-being is a positive predictor of psychological well-being ($\beta = .33$, $p < .01$). The outcome suggested that as pre-college psychological well-being increases, the greater the student's first-year in college psychological well-being.

Research question 3. The third research question of the study asked what between-college characteristics, if any, predict psychological well-being among Black college students. Only one variable, *region*, was found to be a significant predictor of psychological well-being in the final regression model. The response options included East, Midwest, South, and West. In the dataset, region was categorized into numerical codes, therefore the variable needed to be dummy coded. The dummy variable of region, which identifies institutions in the south, was a positive predictor of psychological well-being ($\beta = .06$, $p < .05$). This outcome suggested that Black students who attend colleges and universities in the south were more likely to report higher levels of psychological well-being than were students living in other regions of the country. This correlation may be a proxy for the higher percentage of African American students living in the South, compared to the percentage of African American students living in other regions.

Research question 4. The fourth research question of the study asked what college environment factors, if any, predict psychological well-being among Black college students. Four blocks of predictor variables were entered into the stepwise regression analysis in attempt to answer this question. The findings for each of the four blocks were discussed in the following sections.

Faculty-to-student interactions. There were no significant predictor variables from this block in the final regression model.

Student-to-student interactions. Three independent variables from this block were significant in the final regression model. Two predictors influenced psychological well-being in a positive way, with one predictor having a negative impact on psychological well-being. In the data set, *since entering this college, how easy has it been*

to develop close friendships with other students? ($\beta = .09$, $p < .01$), response options included very difficult, somewhat difficulty, somewhat easy, and very easy. The outcome suggested that as the ability to make close friendships with peers increases, the greater the student's psychological well-being.

In the data file, *since entering this college, indicate how often you had difficulty getting along with your roommate(s)/housemate(s) (*$\beta = .05$, $p < .05$), response categories were not at all, occasionally, and frequently. It was recoded so fewer occurrences of difficulty getting along with roommates/housemates equated to a higher number on the response scale. The finding suggested that those having fewer numbers of difficulties in getting along with roommates had higher levels of psychological well-being.

For the data element, *since entering this college, indicate how often you received advice/counseling from another student* ($\beta = -.08$, $p < .01$) response options were not at all, occasionally, and frequently. The finding suggested that as the frequency in which a student seeks advice or counseling from a peer increases, psychological well-being decreases.

Academic involvement. There were no significant predictor variables from this block in the final regression model.

Non-academic involvement. Two independent variables from this block were significant in the final regression model. One predictor influenced psychological well-being in a positive way and the other in a negative manner. For the variable, *since entering this college have you sought personal counseling* ($\beta = -.10$, $p < .001$), response options included no and yes. This outcome suggested that Black students who seek

personal counseling were more likely to report lower psychological well-being than were Black students who do not seek personal counseling.

For the survey item, *since entering this college, how often have you had adequate sleep* ($\beta = .05$, $p < .05$) the response options were not at all, occasionally, and frequently. This finding suggested that as the amount of adequate sleep increases so does psychological well-being.

Research question 5. The fifth research question of the study asked what intermediate educational outcomes, if any, predict psychological well-being among Black college students. Eight independent variables from this block were found to be significant predictors of psychological well-being. Seven out of the eight predictors had a positive influence on psychological well-being with only one affecting the construct in a negative manner.

In the dataset, each of the following variables was recoded so a more positive sentiment equated to higher numbers on the response scale. The recoding resulted in the variables (1) *since entering this college, how often have you felt popular or included* ($\beta = .23$, $p < .001$) and (2) *since entering this college, how often have you felt encompassed in campus life* ($\beta = .08$, $p < .05$) which were both positive predictors of psychological well-being. These findings suggested that as feelings of inclusion or involvement in the campus environment increase so does psychological well-being.

For the variable, *since entering this college, how has it been to adjust to the academic demands of college (*$\beta = .13$, $p < .001$), the response scale included very difficult, somewhat difficult, somewhat easy, and very easy. This outcome implied that as adjusting to the academic demands becomes easier, psychological well-being increases.

In the dataset, *rate yourself on drive to achieve as compared with the average person your age (*$\beta = .08$, $p < .01$) and *rate yourself on spirituality as compared with the average person your age (*$\beta = .06$, $p < .05$), response options included, lowest 10%, below average, average, above average, and highest 10%. These findings proposed that as self-rated drive to achieve or self-rated spirituality increases, psychological well-being also increases.

For the data elements, *please indicate the extent to which you agree or disagree with the statement "I have been able to find a balance between academics* and *extracurricular activities" (*$\beta = .09$, $p < .01$), response options included, strongly disagree, disagree, agree, and strongly agree. This outcome implied that as a student finds the balance between academics and non-academic activities increases, psychological well-being increases.

In the data file, please indicate the extent to which you agree or disagree with the statement "*My college experiences have exposed me to diverse opinions, cultures, and values"* ($\beta = -.06$, $p < .05$), response options included, strongly disagree, disagree, agree, and strongly agree. This outcome suggested as a Black student becomes exposed to more diversity in opinions, cultures, and values, psychological well-being decreases. This predictor variable had a slight positive simple correlation with the psychological well-being. However, the initial and final beta weight was negative, which directly contradicts the correlation finding. This contradiction is likely due to a suppressor effect, meaning that additional predictor variables consumed enough of the variance that could be explained by *My college experiences have exposed me to diverse opinions, cultures, and*

values" question. As such, this statistical finding related to this outcome cannot be adequately explained based on the results of this dissertation.

The *Your First College Year (YFCY) Overall Satisfaction score (*$\beta = .08$, $p < .05$) was a measure of students' satisfaction with the college experience. For the *YFCY Overall Satisfaction score,* a higher score equated to a higher level of satisfaction. The measure consisted of satisfaction ratings with the institution on each of these aspects of college life: overall academic experience, overall quality of instruction, and overall college experience. The response scale for each item included very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied. The YFCY Overall Satisfaction measure also included "if you could make your college choice over, would you still choose to enroll at your current (or most recent) college?" The response options were definitely not, probably note, not sure yet, probably yes, and definitely yes. The findings suggested that as overall college satisfaction increases, so does psychological well-being.

Table 19 details the contribution that each block in the conceptual model made to the overall variance in the model. The model explained 50% of the variance in psychological well-being. The blocks contributing the most to the model are the pre-college psychological well-being and intermediate education outcomes. Student characteristics did not contribute any variance to the model, followed by a low contribution by academic involvement.

Table 19

Contribution of Conceptual Model Blocks to Overall Variance

Block	Description	R^2 Change	R^2
1	Pre-College Psychological Well-Being	.24	.24
2	Student Characteristics	.00	.00
3	Between-Institution Characteristics	.02	.26
4	Faculty-to-Student Interactions	.04	.30
5	Student-to-Student Interactions	.07	.37
6	Academic Involvement	.01	.38
7	Non-Academic Involvement	.02	.40
8	Intermediate Education Outcomes	.11	.51

Note: N = 899; R2 = .512; Adjusted R2 = .499; *p < .05; **p < .01; ***p <. 001

Summary

This chapter provided an overview of the statistical analyses that were conducted in order to attempt to answer the research questions driving this study. In addressing research question 1, the data show that the degree of psychological well-being among Black students varied significantly by gender, academic performance, academic performance, and satisfaction with the college experience.

For the remaining research questions, of the seventy-six predictors entering the regression analysis, the final model produced twenty-three significant predictors of

psychological well-being among Black college students. The final model explained 50% of the variance in psychological well-being. Pre-college psychological well-being contributed the most to the variance within psychological well-being, while the student characteristics block did not contribute any to the variance within the outcome variable. The final regression model results show that the strongest positive predictors of psychological well-being among Black students, after controlling for pre-college psychological well-being and student characteristics, are the need to feel popular or included, and succeeding at adjusting to the academic demands of college. The strongest negative predictors of psychological well-being among Black students included seeking personal counseling, and receiving advice or counseling from another student. The implications of all the findings deserve further discussion with particular attention to the advancement of research and theoretical knowledge, and professional practice. These items including a summary are discussed in Chapter 5.

Chapter Five

Discussion, Recommendations, and Conclusions

Introduction

Chapter Four presented the results of the analyses that were conducted in attempt to answer the four research questions of this study. Chapter Five provides an overview of the study, including the purpose and methodology followed by an examination of the findings in detail by research question. Implications for policy and practice are also addressed, followed by recommendations for future research. A final summary of the study concludes this chapter.

Overview of the Study

The purpose of this study was to explore the relationship between various collegiate experiences and psychological well-being among Black students. Though a great deal of literature and research has focused on psychological well-being, it has had a limited focus on the psychological well-being of Black students. In particular, research on psychological well-being related to factors such as campus environment, first-generation status, spirituality, academic performance, and satisfaction with the college experience among different racial groups of college students is still under-developed. Furthermore, most of the general college population studies have focused on only the relationship of one factor with psychological well-being, but no study has looked at numerous factors at once in order to understand what variables are related to this outcome. Although there are studies on psychological well-being related to specific factors among students, in general, little is known about racial/ethnic differences in psychological well-being among students

in higher education. By expanding the research on psychological well-being focused on Black students, an important segment of the higher education population was addressed.

The theoretical framework for this study was Alexander Astin's (1999) theory of student involvement, which asserts that the more involved students are in the campus environment, the greater their cognitive and affective outcomes. Astin's Input-Environment-Outcome (I-E-O) model (1991) served as the conceptual framework for this study. In this study, the outcome variable was measured in the YFCY by asking respondents to answer three questions. Two questions asked the respondents to reflect on each since entering college: "Felt depressed" and "Felt overwhelmed by all you had to do." The third question asked students to self-rate their emotional health in comparison with their peers. Because these three items did not use the same scale, each item was standardized and aggregated to create a single scale score for each respondent.

Inputs included the pre-college psychological well-being, student characteristics, and other pre-college characteristics. Pre-college characteristics consisted of high school academic performance, academic and non-academic involvement, and future goals. Between-college variables were those related to the institution (e.g., institutional control, type, and selectivity). The environment variables consisted of students' experiences during their time in college, including academic or non-academic interactions inside and outside of the classroom. Intermediate education outcome variables referred to environmental variables that occurred sometime between initial enrollment in college and assessment of the outcome variable (e.g., satisfaction with the college experience, reasons for not returning for the next semester, and future goals after college). The I-E-O model was a useful tool because it helped formulate blocks of predictor variables in a way to

help understand influences on the outcome variable, psychological well-being. The theory of student involvement and the literature that was reviewed for this study helped determine which items from 2012 The Freshmen Survey (TFS) and 2013 Your First College Year (YFCY) were appropriate to include in the study, and where to assign the item in the conceptual blocking scheme.

Ultimately, the five questions below guided this study:

1. How does psychological well-being among Black college students vary, if at all, by gender, first-generation status, spirituality, academic performance, and satisfaction with the college experience?
2. What input characteristics, if any, predict psychological well-being among Black college students?
3. What between-college characteristics, if any, predict psychological well-being among Black college students?
4. What college environment factors, if any, predict psychological well-being among Black college students?
5. What intermediate educational outcome characteristics, if any, predict psychological well-being among Black college students?

This study used a longitudinal national data sample from the 2012 TFS and 2013 YFCY survey of the Cooperative Institutional Research Program (CIRP). The CIRP is a national longitudinal study of American higher education system, and the Higher Education Research Institute (HERI) at the University of California at Los Angeles manages the survey program. The sample for this study was restricted to the 1,094 Black students who completed both the 2012 Freshmen Survey and the 2013 Your First College

Year survey. The sample was further limited by those who responded to all three survey items that make up the construct of psychological well-being. The final sample size was 899.

The first research question was addressed by performing cross tabulations to determine how psychological well-being varies within selected variables. The remaining research questions were explored by conducting stepwise regression analysis. This statistical technique was conducted with the blocks of variables entered based on the conceptual model. Stepwise regression was determined to be the best statistical tool to use because it essentially does multiple regression a number of times, each time removing the weakest correlated variable. At the end, the researcher is left with the variables that best explain the criterion variable. Seventy-six variables were entered into the regression model in eight blocks. Twenty-three of those variables ended up being significant predictors of psychological well-being.

Discussions of the Findings

Psychological well-being varies from student to student and campus to campus. Moreover, the results of this research study show that there are significant relationships with psychological well-being, and gender, spirituality, academic performance, or college satisfaction. Likewise, psychological well-being mean scores were significantly different across gender, spirituality, academic performance, and college satisfaction groups. However, there was no significant relationship found between psychological well-being and first-generation status. In addition, no significant difference in psychological well-being mean scores was found between first-generation and non-first-generation student groups.

Furthermore, this study found that when using a subset of national data from the CIRP, twenty-three of 76 variables included in the regression analysis were significant predictors of psychological well-being and explained 50% of that variance. However, in the final step of the regression analysis, only 15 variables emerged as significant predictors of psychological well-being. Of those 15 significant variables, one input variable, *pre-college psychological well-being*, and one between-institution variable, *region* dummy coded as south, were significant predictors in the final regression model.

Five college environment factors were significant predictors of psychological well-being. No significant predictors related to faculty-to-student interactions were found. Three variables related to student-to-student interactions had predictive value, and they were *since entering this college, how has it been to develop close friendships with other students, since entering this college, indicate how often you had difficulty getting along with your roommate(s)/housemate(s),* and *since entering this college, indicate how often you received advice/counseling from another student*. Of the college environment factors related to academic involvement, no significant predictors were found. The results of the study also indicate that psychological well-being is influenced by two non-academic involvement factors, which are *since entering this college have you sought personal counseling* and *since entering this college, how often have you had adequate sleep*.

There were eight intermediate education outcomes with predictive value. The predictors included *how often have you felt popular or included; how often have you felt encompassed in campus life*; and *how has it been to adjust to the academic demands of college*. Other predictors were comprised of *rate yourself on drive to achieve as*

compared with the average person your age; *rate yourself on spirituality as compared with the average person your age*; and *please indicate the extent to which you agree or disagree with the statement "I have been able to find a balance between academics* and *extracurricular activities"*. The remaining predictors were *please indicate the extent to which you agree or disagree with the statement "My college experiences have exposed me to diverse opinions, cultures, and values"* and *Your First College Year (YFCY) Overall Satisfaction score.*

The first research question of this study asked how does psychological well-being among Black college students vary by gender, first-generation status, spirituality, academic performance, and satisfaction with the college experience. A detailed description of the results of each analysis is provided below.

Gender. Black male students reported higher psychological well-being scores than Black female students. As young girls, black women are taught to bear crippling burdens without complaint. Black women are expected to weather both physical and mental pain and come through intact on the other side. These survival tactics may be causing more harm than well-being. Previous research shows that Black women may become more susceptible to physical or mental health disorders because of their constant exertion to stay strong, work hard, and overcome obstacles they encounter in their social and physical environment (McGee & Stovall, 2015). This finding is consistent with those of Sax et al. (2004) and Burris et al. (2009) who found that in the general population of colleges students, men reported higher degrees of psychological well-being than women. However, Bowman (2010) reported contrary results, noting that being female is associated with higher levels of psychological well-being. Because of conflicting results

with a previous study, further systematic empirical studies on the relationship between gender and psychological well-being among Black college students are necessary.

First-generation status. In this study, there was not a difference in psychological well-being between non-first-generation and first-generation Black college students. This was surprising finding based on previous research. Adjusting to the academic demands of college, moving away from home, and making new social connections represent just a few of the elements contributing to college students' stress, anxiety, or depression levels, especially during the first year of college. These elements are exacerbated for first-generation college students. For most first-generation students, attending college is an intimidating venture full of unknowns with parents who most likely are not suited to help their students to navigate the college environment. Contrary to the findings of this dissertation research, Bowman (2010) found that being a non-first-generation student is related to higher levels of psychological well-being. This variable should be investigated further. Due to conflicting results between the current study and previous research, further systematic empirical studies on the relationship between first-generation status and psychological well-being among Black college students should be performed.

Spirituality. Black college students with higher degrees of spirituality have higher levels of psychological well-being. The Black Church is viewed historically as a source of hope and strength for the Black community. Spirituality provides a central organizing framework for how Black Americans view themselves, solve personal and community problems, and connect to each other. In the black community, the belief in a higher power plays a therapeutic role with community members receiving emotional support from the church, rather than trained professionals (Barksdale & Molock, 2008).

A connection to faith has long been recognized as having a deeply profound impact on emotional well-being. This outcome reflects the findings of Zullig et al. (2006) who conducted a study on college students' perceived health and religiosity and found that students who described themselves as religious were more likely to report higher psychological well-being compared to peers who described themselves as non-religious. Similarly, many other researchers have found that spirituality influences mental health among Black people (Blaine & Crocker, 1995; Bowman & Small, 2012; Holt et al., 2013; Kim, 2017; Zullig et al., 2006). The current study confirms the previous research on the relationship between spirituality and psychological well-being.

Academic performance. In this study, Black college students with higher academic performance had higher levels of psychological well-being. Students face a number of academic challenges in college, including finding time to study, understanding course content, and maintaining a high degree of motivation. Students who can better manage their well-being are more engaged in class, more likely to absorb what they are learning, and more likely to excel beyond the classroom. Bowman (2013), and Carton and Goodboy (2015) found that reduced cognitive capacity of college students with low psychological well-being negatively affects academic performance. Similarly, other research indicates that mental statuses have a relationship with psychological well-being and academic achievement and performance for Black students (Elion et al., 2012). This dissertation study confirms the previous research on the relationship between academic performance and psychological well-being.

Satisfaction with college. The results of this study suggest that Black students with higher college satisfaction have higher levels of psychological well-being.

Satisfaction is usually equated with students' beliefs that they received the academic and social benefits within the college environment they expected upon enrollment. The campus climate includes the overall feel and structure of the campus environments, institutional policies, services provided for students, and relationships and interactions with faculty, staff, administrators, and other students (Hurtado et al., 1998). The campus climate is considered a significant factor influencing college adjustment and college satisfaction (Harper & Hurtado, 2007). For ethnic minority students, students' perceptions of the college environments have a significant impact on their college experience. Numerous researchers have investigated college student satisfaction for years (Astin, 1999b; Pascarella & Terenzini, 2005). In the end, most researchers agree that highly satisfied students are those who are satisfied with not just their academic outcomes, but the affective ones too. This current study confirms the previous research on the relationship between satisfaction with college and psychological well-being.

Inputs. The second research question of the study asked what input variables predict psychological well-being among Black college students. Although student psychological well-being is known to decrease during the first-year of college, it appears that students who arrive to college with higher degrees of psychological well-being maintain greater levels of psychological well-being in the first year of college. In a longitudinal study of first-year college students, a steep decline in their psychological and social well-being occurred between the start of college and halfway through the freshman year (Conley et al., 2014). Psychological well-being did rebound by the end of the first year, but not to baseline. The finding of this dissertation is further supported by previous researchers who found that pre-college psychological well-being significantly predicted

psychological well-being during the first-year of college (Bowman, 2010; Burris et al., 2009; Sax et al., 2004). However, contrary to the findings of this study, Bowman (2010) found even when controlling for a host of college experiences, psychological well-being gains during the first year were positively related to input variables, including being a non-first-generation student, female, and having high academic achievement. Due to conflicting results between the current study and previous research, further systematic empirical studies on the relationship between student inputs and psychological well-being among Black college students should be performed.

Between-institution characteristics. The third research question of the study asked what between-institution characteristics predict psychological well-being among Black college students. Black students who attend colleges and universities in the south are more likely to report higher levels of psychological well-being than are students living in other regions of the country. This correlation might be a proxy for the higher percentage of African American students living in the South, compared to the percentage of African American student living in other regions. Similarly with other research, this study found no relationship between psychological well-being and institutional type (i.e., university, 4-year college), institutional control (i.e., public, private), or institutional selectivity using the sample mean of ACT composite score for each institution (Kilgo et al., 2016). However, one empirical comparison reported that Black students at a predominantly White university campus experienced higher levels of psychological distress than African American students at a historically Black university (Greer & Chwalisz, 2007). Due to conflicting results between the current study and previous research, further systematic empirical studies on the relationship between types of

institution (i.e., predominantly white institution, historically black colleges and universities) and psychological well-being among Black college students should be performed.

Environment. The fourth research question of the study asked what college environment factors predict psychological well-being among Black college students. In this study, four blocks of predictor variables were entered into the stepwise regression analysis in attempt to answer this question. The findings for each of the four blocks are discussed in the following sections.

Faculty-to-student interactions. In this study, there were no significant faculty-to-student interaction variables influencing psychological well-being. Although faculty-to-student interaction variables used in this study did not significantly influence Black student psychological well-being, other faculty-to-student interaction variables should be explored. The finding in this study is in conflict with previous research. Faculty interactions have been shown to promote psychological well-being in the general college population (Bowman, 2010). Likewise, Cole (2007) found that there was a positive relations between interactions with faculty and psychological well-being among Black students. These findings also supported out-of-classroom interactions with faculty (Cole, 2007). Because of conflicting results between the current study and previous research, further systematic empirical studies on the relationship between faculty-to-student interactions and psychological well-being among Black college students should be conducted.

Student-to-student interactions. There were three significant findings in this block. The first outcome would suggest that as the ability to make close friendships with

peers increases, the greater the student's psychological well-being. Establishing connections and spending time with peers is important for building community. However, this becomes more of challenge in a world that is accustomed to the instant connections and information afforded by social media. The relationship between social support and mental health has been well documented by a number of studies. Bowman (2010) found that psychological well-being is affected by the formation of quality peer relationships. Friedlander et al. (2007) found that individuals with low psychological well-being are more likely to be socially isolated compared to those who are less psychologically distressed. Burris et al. (2009) reported that social support is the strongest factor associated with psychological distress, and Conley et al. (2013) found that psychologically distressed individuals were lacking in friends or partners and felt alone. Likewise, other studies confirm the arguments that social support is an effective way of coping against and decreasing risks for physical and mental effects of stress (Krumrei-Mancuso et al., 2013; Pritchard & Wilson, 2003). For Black students, social support is related to psychological well-being (Kim, 2017; Love et al., 2009). The current study confirms the previous research on the relationship between student-to-student interactions and psychological well-being.

The second outcome would suggest that as the frequency in which a student seeks advice or counseling from a peer increases, psychological well-being decreases. This is a surprising finding since the previous outcome suggests that as the ability to make close friendships with peers increases, the greater the student's psychological well-being. When seeking others opinions, college students turn to trusted peers because the advice they seek may be of a sensitive nature, circumstances which many young adults may not

be comfortable discussing with their parents or others. Often, young adults are looking for validation that what they are experiencing is normal. Although Barksdale and Molock (2008) found that Black Americans have traditionally relied on their peers and other social supports rather than trained professionals, the findings of this dissertation suggests that the quality of the advice giving to Black college students from peers may not be adequate. This may be due to the peer groups' limited life experiences on which their advice is based on and/or the peer groups' inability to apply appropriate counseling methods. A review of the literature did not produce research on this finding. Therefore, further systematic empirical studies on the relationship between receiving advice from peers and psychological well-being among Black college students should be performed.

The third outcome would suggest that those having fewer numbers of difficulties in getting along with roommates had higher levels of psychological well-being. Living arrangements while in college may provide a unique cultural setting for the mixing of diverse social and cultural interactions that may affect a student's well-being. In a racially diverse environment, Black students may experience interracial stress in their interactions with their peers from other racial or ethnic groups. Moreover, students' racial attitudes and preconceptions about their interracial conversational partners substantially affect the outcomes from those interactions (Bowman, 2013). Researchers have found that perceived racial discrimination is a social risk factor for psychological well-being among ethnic minority groups and is associated with well-being concerns (Brondolo et al., 2009; Dawson et al., 2016).

Academic involvement. There were no significant predictor variables from this block in the final regression model. There are a number of academic challenges in

college, including managing classroom time, developing quality study skills, and understanding new course content. Although academic variables used in this study did not significantly influence Black student psychological well-being, other academic variables should be explored. In contrast to the finding of this study, numerous researchers have previously found relationships between time-on-task in academic involvement and various mental health outcomes, including psychological well-being among the general college population (Aspelmeier et al., 2012; Bowman, 2010; Huppert, 2009; Pritchard & Wilson, 2003; Sax et al., 2004; Strahan, 2003). Due to conflicting results between the current study and previous research, further systematic empirical studies on the relationship between academic involvement and psychological well-being among Black college students should be performed.

Non-academic involvement. There were two significant findings for this block. The first outcome would suggest that Black students who seek personal counseling are more likely to report lower psychological well-being than are Black students who do not seek personal counseling. This may be due to the stigma associated with mental health among Blacks and/or a mistrust of the counseling profession. Because of the stigma associated with mental health among Black college students, students may act as if they do not need help, or that they can endure under any condition. Black college students who strive for success, have difficulties asking for help when needed, and minimize or ignore their needs. Many Black Americans, especially those who have ascended the socio-economic and professional ladder in the face of institutionalized racism, struggle with feeling compelled to be strong (Logan, 2005). Furthermore, in order to preserve the well-being and balance of themselves, family members, and even close friends, some

Black Americans may not disclose their problems to important others to preserve harmony or to not burden them with their concerns. In interactions with mental health service providers, in particular, some African Americans might hesitate to disclose negative information out of concern that they will misrepresent the integrity of their larger ethnic group (Wallace & Constantine, 2005). Withholding information may also be due to Blacks' cultural mistrust of Whites, which research has found predicts Blacks' premature termination from counseling, and negative help-seeking attitudes (Broman, 2012). This suppressed information could be essential when creating successful treatment plans for clients. Therefore, further systematic empirical studies on the relationship between receiving personal counseling and psychological well-being among Black college students should be performed.

The second outcome suggests that as the amount of adequate sleep increases so does psychological well-being. The college years are often a time of sleep deprivation. Many college-bound students start out with inadequate sleep habits that are likely to get worse once the rigorous demands of college courses and competing social and other priorities commence. Research found that irregular sleep schedules are significantly associated with lower psychological well-being, even after controlling for weekly average sleep duration (Pilcher & Ott, 1998; Ridner et al., 2016). The current study confirms the previous research on the relationship between quality of sleep and psychological well-being.

Intermediate educational outcomes. The final research question of the study asked what intermediate educational outcomes predict psychological well-being among

Black college students. Eight independent variables from this block were found to be significant predictors of psychological well-being.

The first outcome suggests that as feelings of inclusion increases so do psychological well-being. The second outcome suggests that sense of involvement in the campus environment increases so does psychological well-being. Students need to feel connected to and within the college environment in order to feel as if they matter. Research has linked students' sense of belonging on their campuses to a number of important outcomes, including their persistence in college and even their well-being (Hurtado et al., 1998). Consistently, many prior studies have found that Black students perceive their general campus climate more negatively than their white peers do, and this perception is significantly associated with students' connectedness with college and well-being (Reid & Radhakrishnan, 2003). Loo and Rolison (1986) investigated feelings of alienation among minority students in relation to their new environment and found that minority students experience more feelings of alienation than their white counterparts do. This dissertation research confirms the previous research on the relationship among feelings of inclusion, involvement, and psychological well-being.

The third outcome would imply that as adjusting to the academic demands becomes easier, psychological well-being increases. The fourth outcome would imply that as a student finds the balance between academics and non-academic activities increases, psychological well-being increases. Students face a number of academic challenges in college, including finding time to study, understanding course content, and maintaining a high degree of motivation. Misra and McKean (2000) found that anxiety, ineffective management, and a lack of satisfying activities outside of academia were

strong predictors of academic stress, and depression (Wang & Castañeda-Sound, 2008). Similar to findings of this dissertation, other researchers show that effective coping is associated with positive psychological adjustment to academic demands during the first year of college (Bray & Born, 2004; Struthers et al., 2000). Ethnic minority students have to cope with unique demands resulting from their experience as minorities (e.g., social and political disadvantages as ethnic minority students, immigration status) in addition to the typical demands of college. The current study confirms the previous research on the relationship between efforts to balance demands and psychological well-being.

The fifth outcome would propose that as self-rated drive to achieve increases, psychological well-being also increases. Due to the strong emphasis on educational achievement and family involvement in Black culture, Black students may feel pressure for high academic performance. However, perfectionism or excessive drive to succeed has been established as a multidimensional construct with both adaptive and maladaptive aspects that relate differently to various psychological indicators (Arthur & Hayward, 1997). For example, adaptive perfectionism has been found to be positively related to self-esteem and positively related to psychological well-being (Rice & Lapsley, 2001); in contrast, maladaptive perfectionism has been found to be negatively related to self-esteem and positively related to depression and anxiety (Castro & Rice, 2003). Furthermore, Black cultural values related to the pursuit of higher education have a positive impact on psychological well-being for Black students (Neblett et al., 2013; Thompson et al., 2000). This dissertation research confirms the previous research on the relationship between drive to achieve and psychological well-being.

The sixth outcome would propose that as self-rated spirituality increases, psychological well-being also increases. Spirituality provides a system for how Black Americans see themselves, solve social problems, and connect to each other. It has been well known that spirituality and religion are key sources of strength and tenacity for African Americans. Zullig et al. (2006) study on college students' perceived health and religiosity found that students who described themselves as religious were more likely to report higher psychological well-being compared to peers who described themselves as non-religious. Bowen Reid and Smalls (2004) & Love et al. (2009) found that having religious practices was related to healthier and positive psychological well-being in college students. Research shows that receiving greater religious emotional support decreases depressive symptoms (Holt et al., 2013). Blaine and Crocker (1995) study found that undergraduates' religiousness is a predictor of psychological well-being for Black students. The current study confirms the previous research on the relationship between spirituality and psychological well-being.

The seventh outcome would suggest that as overall college satisfaction increases, so does psychological well-being. College satisfaction is often associated with students' belief that their pre-college expectations of the college environment are equivalent to what is experienced once on campus. For Black students the perception of the college environment is significantly associated with students' general satisfaction with college and well-being (Reid & Radhakrishnan, 2003). Similarly, previous studies reported this relationship between mental health outcomes and life satisfaction among the general college population (Harrell, 2000; Misra & McKean, 2000; Zullig et al., 2006). Numerous researchers have investigated college student satisfaction for years (Astin,

1999b; Pascarella & Terenzini, 2005). Ultimately, most researchers conclude that highly satisfied students are those who are satisfied with not just their academic outcomes, but the affective ones too. This dissertation research confirms the previous research on the relationship between college satisfaction and psychological well-being.

The eighth outcome would suggest Black students are exposed to more diversity in opinions, cultures, and values, psychological well-being decreases. A suppressor effect may have occurred with this variable, meaning that additional predictor variables consumed enough of the variance that could be explained by the *My college experiences have exposed me to diverse opinions, cultures, and values"* question that the Beta weight for the variable flipped from positive to negative. As such, this statistical finding related to this outcome cannot be adequately explained based on the results of this dissertation. Astin (1993) states that socializing across racial lines and participating in discussions of racial issues are associated with widespread beneficial effects on student's academic and personal development, regardless of race. However, other researchers have found that exposure to diversity on campus has been associated with stress, anxiety, and depression among minority students (Wei et al., 2011; Wei et al., 2010). Furthermore, systematic empirical studies on the relationship between exposure to diversity in opinion, cultures, and values, and psychological well-being among Black college students should be performed.

Contributions of the Study

Despite its limitations, the current study adds to the body of research on college students' psychological well-being, and is significant as the study contributes to the

literature in higher education and student affairs as well as in counseling and psychology. This section will discuss those contributions.

Though a significant amount of literature and research has focused on psychological well-being among the general college population, it has had a limited emphasis on the psychological well-being among Black students. Most of the general college population studies have focused on only the relationship of one factor with psychological well-being. The findings of this study add further support to that previous literature and research on the significant relationships between psychological well-being and each of these factors: (a) pre-college psychological well-being, (b) social supports, (c) involvement, (d) spirituality, (e) adequate sleep, or (f) balancing college life. Regardless of racial/ethnic group status, these factors appear to influence psychological well-being.

However, among Black college students, this study revealed additional factors that were related to psychological well-being. These factors included seeking advice from peers or counselors. Surprisingly, both of these factors had a negative relationship with psychological well-being. A thorough review of the literature on psychological well-being among the general college population or among Black college students did not uncover similar findings for either group. This appears to be a new finding in the area of college student psychological well-being. Further systematic empirical studies on the relationship between seeking advice from peers or counselors and psychological well-being among Black college students should be performed. Moreover, this study expanded the research on psychological well-being focused on Black students, an important segment of the higher education population.

Implications for Theory and Practice

This study identified college experiences associated with psychological well-being among Black college students. Findings of this study suggest several meaningful implications for theory and practice.

Implications for theory. The theoretical framework that supported this study was Astin's Theory of Student Involvement (1993, 1999b) which states that involvement is a function of the amount of personal energy and time students put into academic endeavors, whether they are curricular or co-curricular in nature. Involvement theory was shown to be an effective framework for understanding the impact that the college environment has on Black student psychological well-being. This dissertation adds to the strength of using this theory for additional populations other than Black undergraduate students. Researchers could use this dissertation as a starting point for investigating the impact of college on psychological well-being among other minority groups (e.g., Asian Americans, Hispanic Americans). In addition, the current study could be used as a framework for studying psychological well-being of graduate or professional education students. Researchers can investigate whether student involvement has impact on affective constructs beyond psychological well-being; for example, anger, tension, empathy, or calmness. The opportunities for extending involvement theory to different populations and constructs are endless, and based on the findings of this dissertation; scholars are highly encouraged to extend this dissertation's scope to explore the relationship between the college environment and other factors.

Implications for practice. This study identified college environment variables related to psychological well-being among Black college students. Findings of this study

suggest several meaningful implications for practice for professionals working with college students.

Educating faculty and staff in having a better understanding of Black college students' psychological well-being is important. Resiliency myths perpetuate the belief that Black college students must exhibit a constant exertion to stay strong, work hard, and overcome obstacles they encounter in their social and physical environment. This image perpetuates the belief that Black college students do not need mental health supports. However, this study found that Black college students' psychological well-being is influenced by various college environment factors. According to the Health and Human Services Office of Minority Health, Black Americans are 20% more likely to experience serious mental health problems than the general population (NAMI, 2017). However, many Blacks have opted not to get the help that they need from mental health care professionals, due to the stigma associated with mental health treatment. All these findings suggest that the seriousness of Black college students' mental health needs for help are easy to be ignored by professors, advisors, and university staff members. Being aware of factors associated with psychological well-being among Black students is needed for faculty and staff so that they can refer their students to appropriate helping professionals. For example, if a Black student's stressor is associated with balancing academic demands, the student should be referred to their academic advisor, professors, or an academic support/assistance division. The findings of this dissertation showed that the social aspects of the college experience are critically important to Black students' psychological well-being. If the student's concern is feelings of social isolation, the student should be referred to student organizations or residence life. Knowing about

issues and factors related to psychological well-being is helpful for faculty and staff to direct students to the appropriate campus services.

Student affairs professionals are essential members of the campus community who can provide services and programs that promote psychological well-being. Students should be made aware of the availability of campus and other local mental health resources and supports, and the mental health issues commonly experienced by students. Based on a finding of this study, the importance of getting adequate sleep should be emphasized. Educating faculty and staff in having in-depth understanding about the cultural background of Black students is recommended to understand Black students' emotions and behaviors related to psychological well-being. Black students are often reluctant to seek out help in general due to cultural inhibitions about seeking mental health services, and they tend to keep their feelings or distress inside and not share them with others. Due to the tendency to value preserving the well-being and balance of themselves, family members, and even close friends, Black students who have psychological well-being concerns may be internalizing their feelings rather than expressing them to others. Campus mental health providers should focus on recognizing similarities and differences across cultures to help them interpret their clients' behaviors accurately in the clients' own cultural context. Ultimately, given the fact that Black Americans are more likely to seek psychological support from religious leaders, family, or friends over professional mental health providers, it is recommended for college counselors who work with Black students to collaborate with local church leaders, student organization leaders, and student affairs administrators. These groups should work on promoting psychological well-being and identifying the signs of psychological

distress. Understanding Black students' unique cultural backgrounds are necessary to interpret their behaviors and to capture their mental health needs.

This study found that satisfaction with the overall college experience positively predicted Black students' psychological well-being. Satisfaction with college does not account for only one factor, but various experiences during college, which influences students' general impressions about their college experiences. Therefore, every individual working in the college environment, from the housekeeper in the residence hall to the president of the university, influences students' satisfaction with their overall college experience. Higher education professionals need to make efforts to improve college environments and students' experiences so that students are more satisfied with their college experiences, which promote students' psychological well-being.

Recommendations for Future Research

Despite its limitations, this study's findings inspire further research. It is important to continue exploring various college environment variables as predictors of psychological well-being for Black college students so that in-depth understanding and well-developed knowledge of this construct is created to inform and educate those working directly with students.

Suppressor effect. The significant predictor variable, *my college experiences have exposed me to diverse opinions, cultures, and values"*, was likely impacted by what is known as suppressor effect. This variable had a correlation with the criterion variable in one direction and a beta weight in the opposite direction. This indicates that when the relationship between the individual predictor variable and the criterion variable is examined, the predictor variable behaves one way. However, when other predictor

variables are introduced to the relationship, the predictor variable behaves in the opposite way. This conflicting finding is a topic for future research.

Qualitative research study. This dissertation research used a quantitative approach to answering the research questions, which focused on measuring the "quantity" of psychological well-being among Black college students. A qualitative study would further add to the discussion by revealing the range of behaviors and the perceptions that influence psychological well-being. Furthermore, the dynamic nature of an interview or group discussion process engages respondents more actively than with a structured survey. In a qualitative approach, the opportunity to probe would enable the researcher to reach beyond initial responses and rationales. This method could provide more insight on two surprising findings of the current study: the negative relationships between seeking advice from peers or personal counselors and psychological well-being among Black college students.

Alternative theories and models. This college impact study uses Astin's Theory of Student Involvement (1993, 1999b) and his I-E-O conceptual model to frame this study. Based on previous research and the findings of this study, other theories and models should be considered for future research. An alternative option is using Strange and Banning's (2001) Model of Campus Learning Environments, which is grounded in Abraham Maslow's Hierarchy of Human Needs Theory (1968). Using this approach would allow the researcher to examine four facets of the college environment, which promote student success and quality learning experiences: (a) safety; (b) involvement; (c) community, and (4) inclusion. As demonstrated in Harmening and Jacob (2015), this approach is suitable for guiding research on constructs of well-being. Another possible

approach to use in future research is Schlossberg's Model of Marginality and Mattering (1989) which provides a theoretical framework in which mattering involves feeling like you belong in a community and that you are significant to those around you, and marginality is having a sense you do not fit or are not valued in a community. The final recommendation is to consider the use of Sanford's Theory of Challenge and Support (1966) which suggest that college students go through significant personal growth and development, much of which is influenced by the college environment. The theory further implies that for growth and personal development to occur, a student needs to have a challenge/support balance, and the physical and psychological readiness to grow.

Measuring psychological well-being. Psychological well-being takes on many forms and has no single index for measurement. Much of the research on college student psychological well-being focuses on stress, anxiety, and depression. In the current study, psychological well-being is operationalized based on a scale consisting of the following three items: (a) frequency felt depressed, (b) frequency felt overwhelmed, and (c) self-rated emotional health. A recommendation for future research is to explore using different operational definitions of psychological well-being, such as Ryff's Psychological Well-being scales (1989), which conceptualizes psychological well-being as consisting of six dimensions: (a) autonomy, (b) environmental mastery, (c) personal growth, (d) positive relations with others, (e) purpose in life, and (f) self-acceptance. Although previous research in higher education has utilized this approach, a review of the literature did not yield any research where it was applied in a study on Black college students.

Conclusions

The present study examined the relationship between the college environment and psychological well-being among Black college students. Very little research had been done prior to this study on the topic. Astin's Theory of Student Involvement (1993, 1999b) and his I-E-O conceptual model helped to frame this study into a practical piece of work that can aid institutions in providing mental health supports to a diverse college population. As mental health continues to be one of the major issues on college campuses, and psychological well-being is one of the most important factors affecting the quality of life of college students, institutions must play a key role in supporting students' well-being. Furthermore, along with growing racial/ethnic diversity in higher education, college campuses have become environments where understanding and addressing unique characteristics and experiences of diverse students is imperative to the success of students and institutions. Moreover, when students progress through college, it is not enough for them to excel academically; they should flourish in all dimensions of wellness, regardless of their backgrounds.

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Appendix A

University of Toledo Institutional Review Board Approval

UT Exempt
0000202697

The University of Toledo
Department for Human Research Protections
Social, Behavioral and Educational Institutional Review Board
Office of Research, Rm. 2300 University Hall
Mail Stop 944; Toledo, Ohio 43606-3390
Phone: 419-530-2844 Fax: 419-530-2841
(FWA00010686)

IRB APPROVAL NOTIFICATION

Principal Investigator:	Ronald Opp
Protocol Title:	An Examination of Psychological Well-Being Among First-Year Black College Students
IRB Number:	0000202697
Review Method:	Exempt
Review Category:	

4. Secondary Use of Pre-Existing Data (Data must e...

Date of Approval: 04/10/2018

- Per Federal regulation, changes MAY NOT be made to any element of the current research without prior IRB approval, except to eliminate and immediate and apparent hazard to subjects enrolled in the trial.
- Per Federal regulation, the research may not continue without IRB approval. Once the study is complete, the IRB requires prompt notification of study closure.
- Failure to retain current IRB approval may result in archiving the current study and human subjects non-compliance allegations.

Documents reviewed and/or approved as part of this submission:
Other IRB Approval Letter, TFS IRB APPROVAL EXP 11.2.2012.pdf, 03/14/2018
Other IRB Approval Letter, TFS IRB APPROVAL EXP 10.17.2013.pdf, 03/14/2018
Other IRB Approval Letter, YFCY IRB APPROVAL EXP 08.01.2013.pdf, 03/14/2018

Vulnerable Populations included in the study: Minorities

Please note the following important items :

1. Please read the following attachment detailing Principal Investigator Responsibilities.
2. If Consent/Assent/Authorization documents are applicable, only the most recent IRB approved Consent/Assent/Authorization form(s) listed above may be used when enrolling participants into research.

The University of Toledo
Social, Behavioral and Educational IRB
IRB.SBE@utoledo.edu

Date: 04/13/2018

Signed:

Walter Ealinger, Ph.D., Chair

Appendix B

Higher Education Research Institute Data Use Approval

From: Ellen Stolzenberg
To: Barren, Tanisha
Subject: Re: HERI Data Request Proposal
Date: Monday, June 18, 2018 7:16:25 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
Research Agreement.pdf

Dear Tanisha,

The HERI Data Access Committee has approved your proposal entitled "*An Examination of Psychological Well-Being Among Black College Students.*" The committee has agreed to provide access to data from the 2012 CIRP Freshman Survey and 2013 Your First College Year datasets.

Please note that the approval covers the analyses mentioned in your methods section only.

In addition, please note the following:

1. You are approved to conduct only the research for the outcomes described in your revised proposal. Any additional research must be applied for and approved of by the Higher Education Research Institute before any research takes place.

2. You are responsible for obtaining local institutional research board approval for your research.

3. We ask that you provide HERI with a copy of your research product (published paper, conference presentation, dissertation, etc.)

4. You will be asked to sign a research agreement before we will provide you with access to the data (see attached).

5. This data access is granted for a period of one year from when you actually receive the dataset. After a year, we will require a status update and will grant another year extension if necessary. After two years, your access expires. If you need to extend access at that time you must reapply for another proposal review.

6. As a non-UCLA student, your data access fee is $600.

Please sign and return (email is preferred) the attached research agreement. Upon receipt of your signed research agreement, we will begin building your dataset.

Best,
Ellen

Ellen Bara Stolzenberg, Ph.D.
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