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The Relationship Between Racial Discrimination, Self-Efficacy, and Imposter Syndrome Among Black Counseling Students

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This is to certify that the doctoral dissertation by

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has been found to be complete and satisfactory in all respects,
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2024

Abstract

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MA, Louisiana Tech University, 2012

BS, Dillard University, 2009

Dissertation Submitted in Partial Fulfillment

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Abstract

Black counseling students encounter a diverse set of experiences that create dissimilarities in their academic process and perception than their non-Black peers. The purpose of this quantitative analysis study was to determine if there is a predictive relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. The theoretical framework employed for this study was attribution theory. Three surveys were utilized to collect data from anonymous participants: Daily Life Experience Scale, Counselor Self-Efficacy Scale, and the Clance Imposter Phenomenon Scale. To be eligible for participation in the study, participants were required to be currently enrolled in a counseling program and to self-identify as Black. Correlational analysis was used to examine the degree of relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students; specifically. Data analyses methods included multiple linear regressions and simple linear regressions. Results indicated that there was not a statistically significant relationship between racial discrimination, self-efficacy, and imposter syndrome specifically among participants. The results also revealed that racial discrimination and self-efficacy were not statistically significant predictors of imposter syndrome. Further research is recommended to explore additional variables that may predict imposter syndrome among Black counseling students, as well as examine strategies to provide supportive curriculum to support those students who experience imposter syndrome. This study can aid the counseling profession by developing curriculum and methods of teaching to enhance the experiences of Black counseling students.

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Dedication

In loving memory of all those lost along the way. The dream may have been deferred but not expired. Your love will always live in my heart and in my work to aid in the building of our community.

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Chapter 1: Introduction to the Study

Introduction

Imposter syndrome is a phenomenon that depletes an individual's ability to rationally depict their own competency. Feelings and thoughts experienced by persons affected by imposter syndrome make it difficult to experience exhilaration regarding work or academic achievements (McClain et al., 2014). These negative symptoms greatly affect a person's perception of his, her, or their professional or academic capabilities. Although imposter syndrome has been studied by a variety of researchers, regarding several professions and nationalities, a study has yet to be conducted concerning Black counseling students and imposter syndrome. For instance, Atif et al. (2017) studied imposter syndrome among Pakistani students. Bakioglu and Turkum (2020) studied imposter syndrome and self-efficacy among Turkish students, and Vaughn and Johnson (2020) studied imposter syndrome among students who identified as female. The counseling profession is made up of individuals of multiple races and nationalities. Having little research that substantiates the symptoms experienced by Black counseling students creates a gap that overlooks the importance of understanding how imposter syndrome may influence the self-efficacy of a significant number of counselors in training, who will eventually become members of the profession. McClain et al. (2016) suggested that the development of imposter syndrome among African Americans is potentially the result of racial discrimination.

Given the findings from previous studies about imposter syndrome and its associated issues, particularly the lack of research focused on Black counseling student, further investigation is warranted. This study aims to enhance our understanding of the

experiences of Black counseling students. The goal of this study was to contribute to a greater understanding of the Black counseling students. The data obtained from this study will contribute to the development of new methods of educating students and spark future research to support Black counseling students in their journey towards becoming professional counselors.

Social change occurs through the meeting of passion and action. Thomas et al. (2009) reported that when individuals share a collective idea, passion, and desire to act social change is ignited. This study aids in the increase of understanding through collected data This study will provide increased understanding and education regarding how the experiences of Black counseling students effect their perception of their academic and professional competency. This aids us, as professionals and educators in cultivating realistic and appropriate methods of teaching, treating, and informing this population of students and clients.

Background

Oppression and discrimination create higher levels of stress that present feelings of intellectual incompetence. Davis et al. (2018) reported that the oppression of Black Americans increases the development of feelings and thoughts of inferiority, specifically in comparison to colleagues and classmates of different races and nationalities. Racial discrimination affects members of the Black communities and has an influence on physical and mental health. Berger et al. (2015) reported that ethnic groups tackle challenges associated with adverse social and psychological adversities that are directly connected to racial discrimination; this connection creates an increase in adverse mental health effects and issues related to ability. Racism and racial discrimination may lead to

harmful and toxic outcomes, including imposter syndrome. Bernard et al. (2017) informed that racial discrimination can be psychologically damaging; this damage also lends itself to increased feelings associated with a sense of "otherness," potentially leading to feelings of intellectual incompetence among Black students. Bratava et al. (2019) suggested that perceived and experienced prejudices may increase psychological stress related to the educational experience of minority students as well as the development of imposter syndrome.

Ghorbanshirodi (2012) reported that experiences of imposter syndrome may relate to a person's negative self-perception which accordingly affects their self-efficacy. Symptoms of imposter syndrome increase the presence of anxiety and have a negative impact on an individual's self-efficacy (Kamarzarrian et al., 2014). Self-efficacy is the belief in one's ability to produce successful outcomes. An individual's perception of their self-efficacy can greatly affect their insight regarding their competency (Bandura, 2012). Dinther et al. (2011) stated that the choices made by individuals is affected by their self-efficacy, as well as their behavior, and the efforts they exert to complete tasks and obtain success. People often avoid tasks and assignments for which they believe they lack the capability to successfully complete, this creates issue when the subject matter or activity to be completed is within the individual's profession or job duties. The adverse can be said regarding individuals with a stronger sense of self-efficacy, these individuals put forth great effort and perseverance to successfully complete tasks (Dinther et al., 2011).

Ghorbanshirodi (2012) suggested that imposter syndrome is a set of feelings associated with guilt regarding success, the unconscious adoption of a lack of success, fear of evaluation, and unworthiness regarding vocational and educational competency.

Feelings and thoughts associated with imposter syndrome often affect the daily lives of the persons experiencing it. Individuals who experience imposter syndrome often associate themselves with being phonies, frauds, and pretenders (Haney et al., 2018). When undergoing feelings and thoughts associated with imposter syndrome it is difficult for individuals to experience joy related to their success as they often believe their success has been achieved by way of luck or charm rather than true competency or knowledge (McClain et al., 2014). Research regarding imposter syndrome and high achieving African Americans has been identified; however, I have found no research regarding imposter syndrome and Black counseling students. Dancy and Jean-Marie (2014) and Peteet et al. (2015) suggested that African American students and professionals report imposter syndrome at higher rates than their peers and colleagues of differing races. Edwards (2019) and McClain et al. (2016) reported that African Americans that recount symptoms of imposter syndrome have also cited their race as a factor of the onset of their symptoms. The presence of imposter syndrome can lead to adverse mental health effects and increased psychological morbidity, burn out, as well as a decreased quality of life. Lower levels of self-efficacy may also be linked to symptoms of imposter syndrome. Self-efficacy is an individual's beliefs about their ability to perform or succeed within a particular situation or field. McDowell (2015) stated that individuals with high levels of self-efficacy also have a higher level of confidence in their ability, this consequently may lead to fewer symptoms associated with imposter syndrome. Lower levels of self-efficacy may lead to poor job performance, and similar to imposter syndrome, competency doubt. Villmock et al. (2016) reported that imposter syndrome is associated with symptoms like: increased anxiety, lower levels of self-

perceived competency, and shame. With the incorporation of racial discrimination along with imposter syndrome, Black counseling students may be at greater risk of developing these associated negative symptoms.

Problem Statement

The presence of imposter syndrome among high achieving African Americans may be the result of racial discrimination that creates higher levels of stress that introduce feelings of intellectual incompetence (McClain et al., 2016). Kananifar et al. (2015) reported that imposter syndrome and lower levels of academic confidence have an adverse effect on the mental health of individuals. Imposter syndrome creates thoughts of self-doubt and increases levels of anxiety and psychological distress among individuals who experience it. This disproportion creates an unequal balance among students and colleagues and subsequently and potentially increasing thoughts of inferiority which may increase lower levels of self-efficacy and imposter syndrome. The gap in the literature regarding Black counseling students and imposter syndrome has the potential to leave counselor educators, and counselors unarmed with the necessary knowledge and ability to aid or facilitate change with Black counseling students and clients. Therefore, as members of the counseling profession, we need more information and understanding of the possible relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students.

Purpose

The purpose of this quantitative regression analysis study is two-fold. First, this study will examine the predictive relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. This study also aids

to contribute to the limited body of literature regarding the development of Black counseling students. The findings of this study could potentially aid counselor training programs, counselor training supervisors, and counseling services departments and agencies in understanding the importance of incorporating effective techniques and methods that aid in the development of counseling students.

Research Questions and Hypotheses

RQ 1: What is the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, as measured by scores on the Daily Life Experiences Scale (DLES), Counselor Self-Efficacy Scale (CSES), and the Clance Imposter Phenomenon Scale (CIPS)?

H_0: There is no statistically significant relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, as measured by scores on the DLES, CSES, and the CIPS.

H_1: There is a statistically significant relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, as measured by scores on the DLES, CSES, and the CIPS.

- Predictor Variables (PVs): Racial Discrimination, as measured by the DLES, and Self-Efficacy, as measured by CSES.
- Criterion Variable (CVs): Imposter Syndrome, as measured by the CIPS.
- Statistical Analysis: Multiple linear regression

RQ 2: Does racial discrimination predict imposter syndrome among Black counseling students, as measured by scores on the Daily Life Experiences Scale (DLES) and the Clance Imposter Phenomenon Scale (CIPS)?

H_0: Racial discrimination does not predict imposter syndrome among Black counseling students, as measured by scores on the DLES and the CIPS.

H_2: Racial discrimination predicts imposter syndrome among Black counseling students, as measured by scores on the DLES and the CIPS.

- Predictor Variable (PV): Racial Discrimination, as measured by the DLES.
- Criterion Variable (CV): Imposter Syndrome, as measured by the CIPS.

Statistical Analysis: Simple linear regression

RQ 3: Does self-efficacy predict imposter syndrome among Black counseling students, as measured by scores on the Counselor Self-Efficacy Scale (CSES), and the Clance Imposter Phenomenon Scale (CIPS)?

H_0: Self-efficacy does not predict imposter syndrome among Black counseling students, as measured by scores on the CSES, and the CIPS.

H_3: Self-efficacy predicts imposter syndrome among Black counseling students, as measured by scores on the CSES, and the CIPS.

- Predictor Variable (PV): Self-Efficacy, as measured by CSES.
- Criterion Variable (CV): Imposter Syndrome, as measured by the CIPS.
- Statistical Analysis: Simple linear regression

Theoretical Framework

Attribution theory aids in the explanation of how students interpret their environmental experiences and how these experiences influence their future outcomes (Weiner, 1972). Attribution theory seeks to explain the perceived causes, versus the actual causes, for the thoughts and behaviors of students regarding academic outcomes (Lowery et al., 2019). An explanation of a student's behavior and perception can be

attributed to both internal attribution, which is perceived within the student's agency and influenced by prior experiences, and external attributions, which are influenced by the student's environment (Lowery et al., 2019). The negative perceptions associated with the experiences of racial discrimination, low self-efficacy, and imposter syndrome may be based in fear of incompetency, which in turn may result in negative thoughts and behaviors like avoidance, overcorrecting, or vacating. These potential negative outcomes may be prevented if the understanding of the relationships between the variables (racial discrimination, low self-efficacy, and imposter syndrome) are identified and understood.

Nature of the Study

Quantitative research methods enable researchers examine specific variables and hypotheses through systematic measurement and observation, facilitating the testing of theories and hypotheses (Rubin & Rubin, 2012). According to Goertz and Mahoney (2012), these methods employ various strategies of inquiry, such as experiments and surveys, to gather data using predefined instruments that generate statistical information. I will use a quantitative correlational approach to determine whether there is a predictive relationship between racial discrimination, self-efficacy, and the presence of imposter syndrome among Black counseling students. Multiple regression analysis will be used to determine the amount each predictor variable influences the prediction of the criterion variable. For this study experiences with racial discrimination and levels of self-efficacy are the predictor variables, while the presence or development of imposter syndrome is the criterion variable. During data analysis demographic variables collected from the demographic questionnaire will also be analyzed using descriptive statistics to describe

the sample. The calculations for the analysis of data for this study will be performed by the IBM SPSS Statistics (Version 27) software provided by Walden University.

Nature of the Study

To examine the predictive relationship between the experiences of racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, the Daily Life Experiences (DLE) scale, Counselor Self-efficacy Scale (CSES), and Clance Imposter Phenomenon Scale (CIPS) was utilized for this study. The DLE was derived from Harrell's (1994) Racism and Life Experiences Scale (Bernard et al., 2017). The DLE is an 18-item scale that evaluates the rate and range of microaggression experiences, because of race, participants have experienced within the past year (Bernard et al., 2017). The CSES was used with the purpose of measuring the participants' self-efficacy. The CSES is a 20-item scale that aids in assessing participants' level of counselor's self-efficacy. Self-efficacy is the beliefs an individual has regarding their own level of competency (Dinther et al., 2011). The CIPS is a 20-item scale that was used to determine if, and to what extent, characteristics of imposter syndrome were present within the participants; this scale measures the intensity and presence of imposter syndrome based on an individual's perception of their accomplishments (Mark et al., 2019).

The data obtained for this study were all considered primary data. Primary data refers to information that is gathered directly by the researcher through methods such as experiments, surveys, interviews, or observation. In this study, participants were individuals who identified as Black or African American and who reported being counseling students in master's-level programs. With the approval of Walden

University's Institutional Review Board (IRB), I directly contacted the counseling programs at Historically Black Colleges and Universities (HBCUs) located in the south-central region of the United States for permission to solicit graduate students in counseling programs for participation in my study. Four professional counseling organizations also were contacted to gain access to their listservs.

Definitions

Counseling student: For the purpose of this study, *counseling students* will refer to master's-level students enrolled in a counseling program.

Black American: For the purpose of this study, *Black American* refers to an ethnic group of descendants of Black Africans living in, and born in, the United States of America. African ancestry can be identified as either enslaved or migrant African.

African American: For the purpose of this study, *African American* refers to a population of individuals of direct African lineage (African migrant, first or second generation American with African parent or grandparents).

Imposter syndrome: Clance (1978) defined *imposter syndrome* as the tendency of an individual to mis-internalize their accomplishments through refusal of acceptance by experiencing constant fear of being exposed as a "fraud." These irrational thoughts are persistent in lieu of identified or proven ability and competency. Individuals experiencing imposter syndrome often attribute their success to impractical matters like luck, charm, timing, or coincidence; rather than: intelligence, competency, ability, or skill. In this study imposter syndrome will be measured using the Clance Imposter Phenomenon Scale.

Racial discrimination: For the purpose of the present study, *racial discrimination* is defined as an individual's experience of unfair treatment solely based on an individual's presenting racial identity. In this study, racial discrimination will be measured by the Daily Life Experiences Scale (Williams et al., 1997).

Self-efficacy: Bandura (1986) describes *self-efficacy* as the perception of one's ability to achieve a goal or complete a task. Self-efficacy is also referred to as an individual's belief in his or her own ability to succeed. In this study, self-efficacy will be measured using the Generalized Self-Efficacy Scale (Schwarzer & Jerusalem, 1995).

Assumptions

There are several assumptions being made regarding this dissertation study. For instance, it is my assumption that experiences with racial discrimination have impacted the participants' self-perception. It is also assumed participants of this study will be honest regarding their racial identity and their field of study and are Black counseling students in master's-level graduate programs. There is also the assumption participants will share honestly regarding their perceptions and experiences of imposter syndrome. Additionally, I assume the instruments utilized for this dissertation study will effectively measure the variables being examined.

Scope and Delimitations

Taylor et al. (2016) suggested that the scope describes the magnitude of content comprised within the study to obtain valid deductions and provide conclusive and satisfactory solutions to the provided research questions. I will conduct my study by enrolling participants that identify as Black and are enrolled in graduate level counseling programs. The intent of this study is to uncover the relationship, if any, between racial

discrimination, self-efficacy, and imposter syndrome among Black counseling students. Taylor et al. also reported that delimitations are limitations that are within the boundaries of the researcher's control. In order to meet eligibility requirements for this dissertation study, students must identify as Black. Students who identify as non-Black were excluded from the study. Participants had to be currently enrolled in a counseling program. Any participant who is not currently enrolled in a counseling program were excluded from the study; this includes students who are currently on leave from their program as well as recent graduates.

Limitations and Challenges

There are always limitations and challenges within a research study. One limitation of the study is that the participants will be self-reporting their thoughts, feelings, and perceptions on the surveys. Self-reporting brings about a set of limitations as participants may inaccurately report their symptoms and perceptions (Kylync & Firact, 2017). Another limitation to the study will be the usage of convenience sampling. The purpose of sampling in quantitative research is to harvest statistical data that is representative of targeted population (Curtis et al., 2016). However, convenience sampling limits the generalizability of the study as well as the study's internal and external validity (Putmick & Burnstien, 2017). A potential challenge in conducting this study could be securing enough participants to ensure the generalizability of the findings, given the constraints of limited data collection sites. Quantitative research generally necessitates large sample sizes to enable robust generalizations. In the absence of adequate resources for participant recruitment, the validity of the study's results may be compromised. Another challenge may be the use of an online survey. Kylync and Firact

(2017) reported that a challenge with online surveys is that it is difficult to get participants to complete them in full. One way to decrease or eliminate this challenge is to utilize surveys with fewer questions as I have chosen to do in this study.

Significance

The significance of this investigation lies in filling the gap that exists regarding Black counseling students and imposter syndrome. McClain et al. (2016) suggests that there is a presence or relationship between African Americans and imposter syndrome, however further assessment needs to be made to determine whether racial discrimination and or self-efficacy impact the development of imposter syndrome among Black counseling students. I have also found no research regarding Black counseling students and the presence, causes, or issues related to imposter syndrome.

Significance to Theory and Practice

Symptoms related to imposter syndrome affect the mental health of persons experiencing it (Ghorbanshirodi, 2012). Anxiety is increased through the experience of imposter syndrome creating issues within a person's mental health and an inconsistency in their self-efficacy (Kamarzarrian et al., 2014). Increasing the understanding of imposter syndrome and its relationship to Black counseling students can aid in the methods in which we teach, train, and interact with Black counseling students and clients. The results of this dissertation study may improve the ways in which counselors are taught to develop a positive identity and self-efficacy. As a potential result of the study, counselors and counselor educators may be educated regarding the experiences of Black counselors-in-training in order to increase awareness of the differences regarding how life experiences influence and constrain the growth of Black counseling students. This

information can aid counseling programs in establishing curriculums or agendas that specifically adhere to the requisites of all students, rather than the majority.

Significance to Social Change

As agents of positive change, it is the responsibility as counselor educators and supervisors to make contributions towards positive social changes within society (Lee, 2018). It is vital that we increase information regarding the experiences of Black counseling students. Counselor educators and supervisors aid in making up the population of individuals that facilitate change within society. As a result of this study counselors and counselor educators and supervisors will be better prepared to serve as advocates for Black counseling students. With increased understanding of the results of racial discrimination and linkage of self-efficacy with imposter syndrome among Black counseling students, we will be equipped to advocate on behalf of our students, colleagues, and clients.

Summary

While there are numerous Black American counselors and thus counseling students, there has been little research conducted regarding the issues that potentially impact their academic and professional growth. The aim of this study is to seek a greater understanding of the influences that racial discrimination, self-efficacy, and imposter syndrome have on one another as they relate to Black American counseling students. Gaining an understanding for the experiences of Black American counseling students and how these experiences influence growth will not only provide the profession with insight but may aid in the development of methods to be utilized by counseling programs to educate and serve Black counseling students in an effort to appropriately support them in

their growth towards professional counselors. The findings of this study may aid the profession in graduating more confident and competent counselors.

Chapter 2: Literature Review

Introduction

According to Lige et al. (2017), Black Americans experience issues and conditions related to mental health at the same rates as White Americans. Experiences related to historical oppression, dehumanization, and verbal and physical violence increases Black American's chances of experiencing trauma and building protective walls of distrust for members of the majority race (Lee, 2020). This distrust is rooted in historical evidence of mistreatment, underestimation, and disregard.

According to King and Borders (2019), 80% of counselors in the United States identify as non-Black. With roughly only 20% of the population of practicing counselors being Black, Black American clients are likely to receive their mental health counseling from an identifying non-Black counselor, unlike their non-Black counterparts. If identifying non-Black counselors are unaware of how issues, like racial discrimination, self-efficacy, and imposter syndrome affect their clients, they are less likely to provide adequate care to these clients, placing them at a disadvantage. Black American counseling students are also at a disadvantage as they are currently not being trained within counseling preprograms regarding the specific and justifiable issues they may experience as it relates to the relationships between racial discrimination, self-efficacy, and imposter syndrome.

Black American high achievers have reported experiencing thoughts and feelings associated with imposter syndrome. Imposter syndrome greatly affects an individual's self-perceived competency. Counseling students who reported higher levels of imposter syndrome also reported higher levels of anxiety and lower levels of self-efficacy

(Hoggard et al., 2015). Black American high achieving students have reported that experiences with racial discrimination have affected their self-perceived ability to perform tasks and these students have reported being affected by imposter syndrome (Bernard et al., 2017). While there have been studies conducted regarding counseling students and imposter syndrome and self-efficacy, these studies have enlisted predominantly White and non-Black participants. I have found no studies regarding Black American counseling students and the existence of the relationships between racial discrimination, self-efficacy, nor how imposter syndrome relates to either variable.

The present study explored the relationship between racial discrimination, self-efficacy, and imposter syndrome. Obtaining an understanding the relationship between these variables may aid not only in the training of Black American counseling students, but in the improved treatment of and services offered to Black American clients. In this chapter, I discuss the research design, rationale, methodology, setting and sampling criteria, data analysis plan, research questions and hypotheses, as well as possible threats to the study's validity.

Literature Research Strategy

An online search of professional journals was conducted using the key words: imposter syndrome, imposter phenomenon, counselor, counseling students, counseling programs, Black and African American counselors, Black and African American counseling students, mental health, racial discrimination, self-efficacy, Black, Black American, and African American. When searching Black and African American in relation to imposter syndrome and imposter phenomenon, there were scarce amounts of literature found. The databases I utilized when searching for literature were: PsycINFO,

ScienceDirect, MEDLINE, PubMed, Education Source, ProQuest, PsycARTICLES, and PsycBOOKS. I also utilized the Walden University Dissertation and Doctoral Studies Database. Similar keywords were used in this search, additional keywords, and phrases like the relationship between imposter syndrome and self-efficacy, the relationship between imposter syndrome and racial discrimination, the relationship between self-efficacy and racial discrimination, Black counselors, Black counseling students, Black graduate students, Attribution Theory, and Attribution Theory and Black students. I found no studies that explored how the relationships between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. Moreover, throughout my search, I found little research that explored the experiences of Black counseling students. The current study explored the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black American counseling students.

Theoretical Foundation

The current study is based on Attribution theory. Attribution theory focuses on how an individual uses information to provide causal explanations for his or her success or failure. Attribution theory examines the information gathered as well as how it is combined to form a causal judgement (Lowery et al., 2019). When experiencing symptoms of imposter syndrome and issues related to self-efficacy students attribute their accomplishments to outside sources. Attribution theory suggests that this conviction affects their future success. The focus of Attribution theory is causes. Causes are cited in Attribution theory to provide explanation for outcomes (Weiner, 1972). This suggests

that a student's beliefs regarding the causality of their academic success or failure can be linked to external events as well as internal thoughts and factors (Weiner, 1972).

According to Attribution theory, attributions vary based on locus, stability, and controllability. These categories are designed to determine psychological and behavioral consequences of attribution (Swinton et al., 2011). Regarding the locus of attribution, locus is considered the source of an individual's success or failure (Vaughn & Johnson, 2020). For instance, if a Black counseling student does well academically and attributes this success to their own ability then the locus is internal. However, if this same student attribute their academic success to luck or charm the locus is external. The stability of an attribution is its performance (Lowery et al., 2019). For instance, if the same student attribute their own personal ability to their success, the stability is relatively stable because ability can be controlled by the individual. Differently, if the student attributes their academic success to luck or charm the stability is relatively unstable, as luck and charm are situationally beneficial. Controllability of an attribution is based on the level of degree in which an individual can control or influence (Vaughn & Johnson, 2020). If the same Black counseling student attributes their academic success to their ability based on studying and effort, then the controllability is relatively controllable. While if the same student attributes their academic success on luck or charm the source of their success is uncontrollable as luck and charm only affect a situation by chance and their outcome or benefit cannot be controlled.

Using Attribution theory, it is the goal of the study to determine whether experiences with racial discrimination, an external event, affects Black counseling students' self-efficacy and presence of imposter syndrome. Weiner (1986) reported that

Attribution theory provides explanation for how students justify their academic progress by looking for outside factors that may explain their success, or perceived lack thereof, this perceived attribution may influence their future progress. Experiences with racial discrimination affect students' confidence in their ability to succeed and their perception of their peers and professors' perceptions of them (Lige et al., 2017). Lowery and Burrow (2019) argued that when Black individuals experience failure within specific environments, like academia, stereotypes are generated that generalize failure to the racial group. Attribution theory has been successfully utilized to explain differential racial effects regarding patterns of attribution and their effects perceived and expected success or failure (Lowery & Burrow, 2019). If there is a relationship between imposter syndrome, self-efficacy, and racial discrimination then according to Attribution theory this is a threat to Black counseling students' future success.

Review of the Literature

Black American students face a diverse set of issues in academia. Often times the experiences of Black graduate students are reduced and glossed over and the complexity of Black students' lived experiences are discounted by graduate programs and faculty (Dortch, 2016). Although universities and graduate programs have begun prioritizing diversity within courses, they have yet to create inclusive educational environments that maximize the rich talents of Black graduate students and adjust curriculums not created specifically to incorporate their distinctive experiences (Dortch, 2016). These experiences create barriers when unaddressed. There is thorough research regarding how imposter syndrome and self-efficacy relationally affect graduate students, while I found no research regarding how these variables affect Black graduate students nor how their

experience with racial discrimination relationally influences either variable. Counseling students' internalization of not only information but also their own abilities greatly affect their future practice with clients. If Black counseling students and the requisites required for their advancement within counseling programs are not examined and woven into the curriculums of our programs, these students as well as their future clients will miss opportunities for growth.

The articles utilized for the literature review were published within the last ten years and were scholarly and peer reviewed. Influential articles beyond these constraints were also used predominantly as foundational articles for the variables and theory utilized in the study. Throughout this review of the literature, literature regarding racial discrimination, self-efficacy, and imposter syndrome were appraised.

Racial Discrimination

Racial discrimination occurs when an individual is negatively differentiated based on their race or ethnic origin (Bernard, 2017). Racial discrimination is correlated to negative mental health outcomes for Black Americans, this includes negative affect, distress, depression or depressive symptoms, anxiety, and psychiatric symptoms (Hoggard et al., 2015). Universities have made diversity a priority throughout the past few years, increasing and acknowledging literature related to cross-cultural differences, however academic institutions have yet to be able to produce an environment free of racial discrimination that highlights and amplify the opulent and distinctive talents and skills that Black students contribute to the academic setting (Tuit, 2015).

Black students come into the academic environment with prior experiences of racial discrimination that need addressing within the compounds of education, and often

encounter more racial discrimination at the hands of peers, faculty, staff, and a host of other bigoted participants. These issues need addressing because in the absence of addressing them students are at higher rates for developing issues related to their mental health and increased rates of program resignation (Alexander et al., 2003; Eisenberg et al., 2016). Although Black counseling students have emerged from counseling programs to be successful within the counseling field, this is despite programs lacking an understanding of how racial discrimination impacts Black counseling students.

Racial Discrimination Among the General Population

It is reported that Black Americans encounter discrimination across multiple domains, including education and employment (Schmitt et al., 2014). Discrimination and poor life events are threats to an individual's psychological well-being. Schmitt et al. (2014) highlighted the difference between pervasive and isolated discrimination. Pervasive discrimination implies that the offense occurs frequently, while isolated discrimination is a remote experience. Of the two perspectives of discrimination, pervasive discrimination is likely to have a more negative effect on well-being (Schmitt et al., 2014). For example, the current racial reckoning experienced in the United States is the result of pervasive discrimination. Students may also be experiencing remote discrimination and perceiving it as pervasive because of the current racial climate.

The results of the study indicated that perceived discrimination is negatively related to well-being and positively related to negative outcomes like distress. What this means is that as perceived discrimination increases an individual's well-being decreases, and when perceived discrimination increases a negative outcome like individual's distress also increases (and vice versa).

Lee et al. (2020) reported that racial discrimination is a salient source of stress for Black people. There were 605 African American participants in this longitudinal study across eleven waves, spanning the course of six years. The data derived from this study indicates that participants reported lower levels of perceived racial discrimination if they lived in predominantly Black neighborhoods. The implication that can be made from this is that individuals residing in predominantly White neighborhoods may experience more perceived racial discrimination. Regarding Black counseling students, this may transcend to students attending predominantly White institutions, or students living in or previously raised in predominantly White neighborhoods. As reported in previous research, perceived racial discrimination is a salient and toxic stressor that may impact the psychological well-being of individuals (Saleem & Lambert, 2015).

Hoggard et al. (2015) analyzed the relationship between reported racial and nonracial stressors. It was the goal of this study to uncover how racial discrimination contributes to mental health outcomes on a day-to-day basis among African American participants, and to identify whether the responses of the participants would be different for stressors that were racial or nonracial (Hoggard et al., 2015). Participants were asked to indicate whether they experienced racial discrimination throughout their day in their logs. If a participant reported yes to experiences of racial discrimination in their day, the stress related to this specific day was labeled racial stress. As previous research indicates, positive racial identity increases self-esteem and psychological well-being (Lige et al., 2017). The data collected during the study indicated that individuals experienced similar increases regarding depressive symptoms for both racial and nonracial stressors.

Racial Discrimination Among College Students

Eisenberg et al. (2016) reported that higher levels of negative mental health outcomes among students correlates to lower retention rates within academic programs; therefore, not addressing the potential relationships between the variables as an issue within counseling programs creates not only an issue for the students but also for the program. With the potential for decreased retention and increased gaps in enrollment regarding Black counseling students with unaddressed issues related to racial discrimination, self-efficacy, and imposter syndrome counseling programs are at a disadvantage by not addressing these issues as retention rates are closely examined regarding the maintenance of accreditation as well as student enrollment (Eisenberg et al., 2009).

Bernard et al. (2017) examined the relationship between the experiences of racial discrimination and the development of imposter syndrome. The theoretical framework utilized in this study was the risk and resilience framework. Bernard et al. surveyed first year African American students to identify the relationship between their experiences with racial discrimination, racial identity, and the development of imposter syndrome. For this study data were collected as a part of an ongoing longitudinal study on African American health and life experience (Bernard et al., 2017). Data were collected in two parts over eight months between each collection. The study found that among first year African American college students there was a positive relationship between their reporting racial discrimination and imposter syndrome. This study aids in understanding this relationship among undergraduate African American students, however, does not address Black graduate students or Black counseling students.

Bernard et al. (2017) reported that regarding African Americans, imposter syndrome was linked to negative psychological adjustment outcomes. Bernard et al. examined the moderating influence of gender and racial discrimination on the association between imposter syndrome and mental health among Africa American college students. Racial discrimination and gender may interact with the way that imposter syndrome influences these outcomes and decrease self-esteem and self-efficacy (Bernard et al., 2017). Bernard et al. utilized the Garcia Coll and colleagues' Integrative model as a theoretical framework for this study. This model suggests that specific social variables and stratification mechanisms encourage and reduce personal growth. Regarding this study race and gender are referred to as the social variables and racial discrimination is referred to as the stratification variable. The results of this study indicated that imposter syndrome indirectly influences mental health by extending or decreasing the effects of other variables directly related (Bernard et al., 2017). The results also indicated that African American women report higher levels of racial discrimination frequency also, women that reported lower levels of distress related to racial discrimination were more likely to report negative mental health impacts associated with imposter syndrome. This study aids in understanding the linkage of racial discrimination imposter syndrome and mental health. This study also provides information and data that highlights the potential psychological structures that may increase vulnerability for experiences of imposter syndrome among African American college students.

Peteet et al. (2015) assessed imposter syndrome, well-being, racial identity, and first-generation status of minority undergraduate students. The study highlights the pressures experienced by minority students, specifically talented minority students, and

provides awareness of the academic, social, and psychological stressors underwent by minority students. The participants of this study reported various majors and were all registered as undergraduate students. This study provides data obtained from Black, Latino, and Asian undergraduate students and results in data that suggest that college counseling centers need to be equipped to work with these specific students to facilitate change. My study will emphasize how racial discrimination, self-efficacy, and imposter syndrome relate to also highlight the need the need for greater preparation within the counseling profession.

Lige et al. (2017) examined the relationship between racial identity, self-esteem, and imposter syndrome among African American undergraduate students. Discrimination and racism create isolation and negatively effects self-esteem and self-efficacy as it relates to academic achievement which creates constant obstacles for African American students (Lige et al., 2017). African Americans in the United States have a history of experienced minority disadvantage, this may result in African American college students collectively being perceived as the identifiable other according to Lige et al. The data obtained during this study revealed that African American students who reported positivity towards African Americans as well as their membership within the African American community also reported higher levels of self-esteem and subsequently lower levels of imposter syndrome (Lige et al., 2017). Professional implications of this study include an ability to aid clients and students in decreasing their symptoms of imposter syndrome by aiding in the development of their racial identity.

Stone et al. (2018) reported that Black graduate students, because of racial discrimination, feel alienated, undervalued, estranged, and invisible within their

universities. Racial discrimination contributes to Black students feeling less competent, intelligent, and less prepared to practice the skills obtained during their graduate programs (Stone et al., 2018). Although there is countless research regarding the effects of racial discrimination (Bernard et al., 2017; Brody et al., 2014; Cokley et al., 2013; Han et al., 2011; Lee et al., 2020), I have found no research regarding how racial discrimination effects Black counseling students or its relationship with imposter syndrome and self-efficacy. This gap in the literature places counseling programs at a disadvantage as the consequences of unaddressed racial discrimination, self-efficacy, and higher levels of imposter syndrome independently may cause negative mental health outcomes.

Self-Efficacy

Self-efficacy is an individual's personal belief in their own capacity to execute specific behaviors necessary to produce specific performance attainments; this belief reflects an individual's confidence in the ability to succeed (Bandura, 1977). According to Bandura (1977), an individual's self-efficacy begins to develop during early childhood through experiences, tasks, and situations. Bandura (1977) also reported that the development of self-efficacy continues throughout an individual's lifespan as they continue to evolve and acquire new experiences, skills, and understanding. Since the onset of research pertaining to self-efficacy there have been countless studies conducted regarding students, counselors, and even counseling students; however, I have found no studies that include the self-efficacy Black counseling students specifically. This gap within the research neglects the psychological wellbeing and growth process of

counseling students and disregards the potential effects of racial discrimination has on self-efficacy as it relates to Black counseling students.

Self-Efficacy Among College Students

Van Dinther et al. (2011) examined the development of self-efficacy within students. The researchers emphasized the enhancement of self-efficacy through program changes. The authors defined self-efficacy as a belief of personal competence. An examination of self-efficacy's effect on educational growth and student motivation was conducted in the study. The researchers examined interventions to increase self-efficacy among students. The results of this study can be utilized in my study to provide methods that may be beneficial to counseling students who report low levels of self-efficacy.

Self-Efficacy Among Doctoral Students

Dortch (2016) examined the self-efficacy of two African American female doctoral students enrolled at predominantly White institutions using a phenomenological approach. This study assessed the experiences of two participants from a first-person perspective, employing a phenomenological research design. Data were collected during the study using both the General Self-efficacy scale as well as an in-person semi-structural 20 question interview. Both participants reported having positive peer relationships that aided in their academic performance. Both participants also reported positive contributions made by faculty helped in shaping their level of self-efficacy. Graduate students have reported that relationships with same-race peers are beneficial to combat feelings associated with solitude and loneliness (VanDither et al., 2014). Counseling programs could benefit from hosting organizations specifically for diverse students to aid in their success, both academically and professionally.

Self-Efficacy Among Counseling Students

Mullen et al. (2015) reported that self-efficacy beliefs do not depend on an individual's abilities, rather the individual's belief in their ability. Mullen et al. examined the effects of a counselor preparation program on counseling students' development of counseling self-efficacy through a longitudinal investigation. Counseling self-efficacy is the belief or judgment regarding an individual's own confidence and ability to effectively counsel clients (Mullen et al., 2015). Data for the study were collected in three waves. Data were collected during new student orientation, mid-way through the participant's journey through the counseling program, and during participants' final internships. The results of this study indicated that students report higher levels of self-efficacy as they progressed through the counseling program. Understanding students' self-efficacy could aid in offering additional training and development tailored to their specific phase within the program.

When individuals experience low levels of self-efficacy, they, as a result, invest lower levels of effort into an activity or task; these individuals also experience higher levels of anxiety regarding familiar (Bandura, 1997). Kozina et al. (2010) examined the changes regarding self-efficacy reported during the training of graduate psychology students. There were 20, all white, participants who attended the same university. Data from this study was collected in two waves. The first wave of data was collected eight weeks prior to the second. Both waves of data were during the second semester of participants' first year in the psychology program. Participants reported higher levels of self-efficacy when they were re-assessed during the second wave of data collection. The implication of this study is that positive changes to levels of self-efficacy can occur

within short periods of training. This is beneficial as programs can institute brief training for students with lower levels of reported self-efficacy to potentially increase their reported levels of self-efficacy.

Goreczny et al. (2015) reported that self-efficacy is a predictor of therapeutic outcome. Individuals who are confident in their ability to perform, perform well, and perform better than individuals who are not confident in their abilities (Goreczny et al., 2015). The results of this study indicate that graduate students at the beginning of their program reported low levels of self-efficacy. Graduate students reported higher levels of self-efficacy. Undergraduate students also reported higher levels of self-efficacy, greater than beginning graduate students. A suggested explanation regarding the reported levels of self-efficacy by undergraduates versus the levels of self-efficacy reported by graduate students is simply that graduate students have absorbed more knowledge and information regarding the counseling practices that they are more able to differentiate and acknowledge what they know and what they do not know (Goreczny et al., 2015).

Watson (2012) analyzed the relationship between enrollment in an online counseling courses and students' reported counseling self-efficacy levels. The purpose of this study was to examine the differences in counseling self-efficacy reported by participants enrolled in online coursework and face-to-face coursework (Watson, 2012). It was hypothesized that students enrolled in online courses would report lower levels of self-efficacy than students participating in face-to-face coursework. The Counseling Self-Estimate Inventory was employed to assess the level of self-efficacy among 373 participants, of these 166 participants were online learners. The results of this study indicate that students enrolled in online courses reported higher levels of self-efficacy,

disproving the stated hypothesis. As students are learning online more predominately it is vital that we gain a better understanding of how online learning affects the self-efficacy of counseling students.

Imposter Syndrome

Clance and Imes (1978) defined imposter syndrome as the experience of externally successful individuals having an internal illusion of incompetency. These individuals attribute their success to external circumstances like luck, charm, and interpersonal skills rather than intelligence or competency. Students experiencing imposter syndrome have difficulty learning through conventional teaching strategies as their symptoms create doubt and add challenges to the development of their learning style (Atif et al., 2017). Additionally, students who report symptoms of imposter syndrome have also reported issues related to burnout, anxiety, depression, and many other psychological effects that create significantly influence their academic training and growth (Atif et al., 2017). The effects of imposter syndrome bring issues within academia, specifically within counseling programs as it creates consequences for both the current student and the future client.

Clance and Imes (1978) investigated the relationship between high achieving women and imposter syndrome. Clance and Imes defined imposter syndrome as an internal experience of intellectual phoniness. As one of the first studies conducted regarding imposter syndrome this research is vital in understanding internal conflicts experienced by individuals who receive academic and professional accolades while simultaneously experiencing imposter syndrome. In this study, Clance and Imes observed and assessed high achieving women to determine their internal perceptions regarding

their success. Although the present study will examine the relationship between imposter syndrome and multiple variables as they relate to both men and women, Clance and Imes aids in understanding the perceptions of women experiencing symptoms associated with imposter syndrome. This study is limited in its ability to examine the symptoms associated with men and imposter syndrome, as well as the relationship between imposter syndrome and other variables and their effect on the internal perception of individuals.

Imposter Syndrome Among College Students

Lane (2014) explored the development of imposter phenomenon and its contributing factors, both internal and external, and its impact on performance through qualitative investigation. Lane hypothesizes that perfectionistic individuals with issues related to self-validation also experience imposter syndrome at greater levels. Self-validation is reported to be an individual's perception of his or her academic or professional skillset; this is like an individual's self-efficacy which will be addressed in my study. According to the results, participants who identified as highly motivated and had difficulty self-validating reported higher rates of imposter syndrome. This study provides a model for further understanding regarding imposter syndrome for the current study as it is relative to students and experiences of students. However, this study does not highlight or assess the relationships between racial discrimination, self-efficacy, and imposter syndrome.

Imposter Syndrome Among Graduate, Minority Students

Qureshi et al. (2017) researches the experiences of Pakistani medical students and their experiences with imposter syndrome. The researchers highlight the conflict between self-doubt regarding competency and the accomplishments and abilities of the

participants. Similar to individuals with lower levels of self-efficacy, in this study students with higher levels of self-doubt reported low levels of self-perceived abilities as it related to their academic and professional abilities. The results show that students with higher levels of self-doubt also reported higher levels of imposter syndrome. This is relative to my study as I will also be measuring the self-perceptions of professional students' abilities. Differing from this study I will be examining the relationship between racial discrimination and imposter syndrome with the addition of the relationship between levels of self-efficacy and levels of imposter syndrome. Similarly, this study enlisted minority students as participants as I will also be enlisting minority students as participants, however I will only be enlisting Black American students.

Atif et al. (2017) conducted a study that assessed the presence and experience of high achieving individuals with imposter syndrome. Minority students, specifically Pakastani medical students, were surveyed to examine their levels and frequency of imposter syndrome. This study was a cross-sectional descriptive study that examined Pakistani medical students to be surveyed using an eight-item questionnaire to determine their frequency of imposter syndrome. The results of the study indicated that 47.5% of the students surveyed were found to experience symptoms associated with imposter syndrome (Atif et al., 2017). These results imply that graduate and professional programs would benefit from the incorporation of program development for faculty, staff, and administration to address the effects of imposter syndrome on students, specifically minority students. The current study will be able to add information and interpretation to the understanding of the implications of imposter syndrome upon minority graduate students, specifically graduate level counseling students.

Cokley et al. (2012) examined the different experiences of imposter syndrome among individuals based on their identified minority status. This study explored how the stresses associated with minority status affect students' development of feelings associated with imposter syndrome, academic success, and mental health. Cokley et al. (2012) reported that there was a positive relationship between feelings associated with imposter syndrome and minority status stress, and a negative relationship related to psychological well-being and minority status stress. The results of the study indicated that African American students reported the highest levels of minority stress, while Asian Americans reported higher levels of imposter syndrome (Cokley et al., 2012). The current study will specifically assess the reported levels of imposter syndrome among graduate level Black American counseling students, without the inclusion of additional minority students.

McClain et al. (2016) examined the experiences of Black college students and their experiences with racial and ethnic identity and their relationship to experiences of imposter syndrome. McClain et al. (2016) also examined the stressors experienced by Black college students attending primarily white institutions (PWI). The results of this study show that stress was positively related to imposter syndrome and racial centrality, stress and imposter syndrome are both negatively related to mental health, while racial centrality and ethnic identity were both positively related to each other and both positive related to mental health (McClain et al., 2016). Although this study addressed several variables, it omitted racial discrimination, self-efficacy, and their relationships with imposter syndrome. Although participants ranged from ages 15 to 45, all participants

were undergraduate students which excludes graduate students, specifically counseling students.

Summary and Conclusion

Black students have reported that their educational experiences in graduate programs contain occurrences in which they are often overlooked, disrespected, undervalued, underrepresented, and racially discriminated against by their white peers and program faculty (Jaeger & Haley, 2016; Zeligman et al., 2015). Black students have reported feelings of inadequacy and fraudulence that is contributed to perceived expectations of performance stemming from racial stereotypes (CITE). These thoughts and feelings can be associated with imposter syndrome.

Although the research highlights relationships between racial discrimination and imposter syndrome as well as a relationship between self-efficacy and imposter syndrome, I have found no research that examines the relationship between the three variables. This gap within the literature leaves room for ignorance as it pertains to educating and providing counseling services to Black counseling students and professionals. In my review of literature across various databases, I found no articles regarding the of Black counseling students. However, I was able to find an article that incorporated the participation of all white participants that were also students of counseling and the effects of training on self-efficacy (Kozina et al., 2010). Research is needed that explores racial discrimination and its relationship with imposter syndrome and self-efficacy. Both racial discrimination and increased levels of imposter syndrome have been reported to relate to negatively reported psychological well-being, the research also indicates that lower levels of imposter syndrome relate to low levels of self-efficacy

(Dortch, 2016; Goreczny et al., 2015; Watson, 2012). Understanding the relationship between the three variables, related to Black counseling students, will contribute to Black students' professional development. In Chapter 3 I describe how I will utilize the Daily Life Experience Scale, General Self-Efficacy Scale, and the Clance Imposter Phenomenon Scale to analyze the relationships between racial discrimination, self-efficacy, and imposter syndrome. I will also discuss the rationale for the research design, the methodology (including population, sampling procedures, and sample size), participant recruitment, data collection, my plan for analyzing the data, the research questions and hypotheses will be reiterated, as well as validity and the ethical procedures will covered in Chapter 3.

Chapter 3: Research Methods

Introduction

This chapter encompasses the methodological details for the current investigation, including how I analyzed the data to examine the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. Specifically, in this chapter I will highlight and identify the research study's design and rationale, sample, sampling procedures, eligibility criteria, data collection process, data analysis plan, and research questions and hypotheses. An account will be given regarding measures to address possible threats to validity and to fulfill ethical standards for conducting research with human subjects, particularly informed consent, and the maintenance of confidentiality. The purpose of this investigation was to examine the predictive relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students.

Research Design and Rationale

The nature of the study was quantitative. I utilized this method because this approach is effective for investigating statistically significant relationships between a dependent variable and one or more independent variables (Rubin & Rubin, 2012). Quantitative methods employ approaches of investigation using surveys to gather data using predetermined instruments that generate statistical data (Goertz & Mahoney, 2012). I utilized a quantitative correlational approach to examine the relationship between the predictor variables (PV) racial discrimination, and self-efficacy, and the criterion variable (CV) imposter syndrome, amongst Black counseling students, as well as to examine whether either PV was a statistically significant predictor of the CV.

Research indicates that experiences with racial discrimination, low levels of self-efficacy, and reported imposter syndrome separately have negative psychological outcomes on individuals (Atif et al., 2017; McClain et al., 2016; Saleem & Lambert, 2015). Because little is known regarding the relationship between the three variables and how the outcomes of their potential relationships effect Black counseling students the findings from the current study are vital to the training and of Black counseling students as well as Black clients. The study was designed to yield descriptive statistical data and to determine whether there are any statistically significant predictive relationships between the three variables.

Methodology

Population

The sample in a research study describes the group of participants from which information is gathered. The target population for the current study encompassed Black students enrolled in a U.S. graduate counseling program in clinical mental health counseling, community counseling, or school counseling.

Sample and Sampling Procedures

Participants for this study were derived from graduate level counseling programs as well as professional and academic organizations. All participants were enrolled in a counseling program and identify as Black regarding race. I used nonprobability sampling to recruit participants, specifically convenience sampling. Kohler et al. (2019) reported that nonprobability sampling occurs when participants are chosen on a basis other than random selection. Additionally, nonprobability sampling affords researchers the ability to intentionally select participants based on specified criterion (Kohler et al., 2019). The

method of sampling utilized was also convenience sampling. Convenience sampling is a conclusive and practical method of survey distribution (Escobedo et al., 2018). The most beneficial advantage of utilizing convenience sampling in this study is that it is time effective (Jager et al., 2017).

Sample Size

To determine the appropriate sample size for this study I conducted a priori analysis. I utilized an A-priori online calculator to estimate the desirable sample size for my study. The A-priori Sample Size Calculator for Multiple Regression allowed me to input the following information to compute the estimated sample size: anticipated effect size of 0.15, alpha or probability level of 0.05, desired power level of 0.8, and two predictor variables. Soper (2020a) reported that regarding studies conducted within the social sciences, 0.05 (5%) is a standard alpha level. The minimum estimated sample size for this study according to a priori analysis was 69. It was my goal to utilize various academic and professional organizations, as well as universities to recruit participants and obtain a larger number of participants than the minimum recommended by the A-priori Sample Size Calculator for Multiple Regression. According to Hox et al. (2017), it is appropriate to increase the recommended sample size by 10% to offset potential withdraws and incomplete surveys. Therefore, with the addition of 10%, the recommended minimum sample size for this study was 76.

Procedures for Recruitment, Participation, and Data Collection

Upon approval from Walden University's Institutional Review Board (approval # 1-07-22-0754373), participants were recruited through the following professional organization listservs: Counselor Education and Supervision Network (CESNET),

American Counseling Association, CounsGRAD, and DIVERSEGRAD. I emailed an announcement about the study, along with the survey link (Appendix A), to members of the listservs. Potential participants who met the criteria for participation were able to access the survey instruments by clicking the survey link in the email. I also emailed the department chairs (or equivalent staff member; Appendix B) of counseling programs at Historically Black Universities (HBCUs) located in the southern-central region of the United States, for permission to solicit their graduate students for participation in my study. I also requested access to the Walden University's research pool to recruit participation. No incentives were provided for participation in this study. The recruitment of participants from national organizations aided in obtaining participation from participants in areas that vary geographically, aiding in the generalizability of my findings (Tipton et al., 2016).

Data were collected using SurveyMonkey. I uploaded the instruments to SurveyMonkey and distributed an access link to potential participants recruited through the previously stated listservs, organizations, and universities. During the data collection process 76 participants completed the study survey. The study survey consisted of a demographic questionnaire (Appendix C) in addition to three authenticated instruments that were used to assess racial discrimination, self-efficacy, and imposter syndrome. Prior to completing the online survey an electronic informed consent (Appendix D) was a prerequisite that each participant must complete. The informed consent automatically populated once the survey link is opened. In compliance with Walden University IRB guidelines, when participants agreed to participate in the study after reading the consent form, they were prompted to click the "yes" button before they were able to proceed to

the study survey. Anyone who selected “no” to the informed consent were not able to proceed to the survey.

Eligibility for participation was verified through the demographic survey. Participants who did not indicate that their race is Black and who did not report current enrollment in a graduate counseling program were eliminated from the participant pool. Those who met the above criteria were forwarded to the remainder of the survey. Participation in the survey was completely voluntary. Completion of the survey took approximately 15 minutes. Participants had access to the survey until the recommended minimum sample size of 76 was met. I sent out reminder emails to participants bi-weekly until the desired sample size was obtained. Once the data collection period concludes the data obtained was automatically transmitted to IBM SPSS Statistics (Version 27) and Microsoft Excel to be analyzed.

Instrumentation and Operationalization of Constructs

Data collection for this study occurred through an online survey with SurveyMonkey. SurveyMonkey is an internet program and hosting site that permits researchers to develop and distribute surveys via the internet (Walcawsk, 2012). According to Walcawsk (2012), data collected using SurveyMonkey is encrypted using encryption algorithms and strengths to aid in the insurance of security. This survey consisted of the following instruments: Daily Life Experiences Scale (DLE), Counselor Self-Efficacy Scale (CSES), and the Clance Imposter Phenomenon Scale (CIPS). I developed a demographic questionnaire to aid in gaining information regarding the participants. According to Allen (2017) demographic questionnaires provide context for the data collected during the study. The questionnaire requested information related to the

program in which the student was enrolled, identified race, age, gender, marital status, geographic location, employment status, number of children, number of siblings, parent's highest level of education, country of origin, parent's country of origin, religious practices, previously attended colleges/universities, and previously obtained degrees. Allen suggested that additional demographic questions, regarding religion and family, in a survey provide researchers with an opportunity to gain background information on their participants. These additional questions deliver context for the data that is collected, allocating researchers with information to describe their participants and better analyze their data.

The DLE was derived from Harrell's (1994) Racism and Life Experiences Scale (Bernard et al., 2017). The DLE is an 18-item self-reporting scale that provides assessment for daily hassles as well as the frequency of microaggressions that have occurred because of race, specifically because of the participant's membership within the Black race (Bernard et al., 2017). The Scoring procedure allows for a total score, which falls within the range of 10 and 60, with higher scores indicating more persistent experiences.

With the purpose of measuring the participants' self-efficacy the CSES will be utilized. The CSES is a 20-item scale that aids in assessing participants' level of self-efficacy among counselors. Self-efficacy is the beliefs an individual has regarding their own level of competency (Dinther et al., 2011). The scale has been originally developed in German by Matthias Jerusalem and Ralf Schwarzer in 1981. Differing from other scales that were designed to assess optimism, the GSE assesses self-efficacy through personal agency, as the developers believed that an individual's actions are responsible

for successful outcomes and perceived self-efficacy is a prospective and operative construct (Malinauskas, 2017). Scores range from five to 50 where higher scores indicate higher levels of self-efficacy.

The CIPS is a 20-item scale that was be used to determine if, and to what extent, characteristics of imposter syndrome are present within the participants; this scale measures the intensity and presence of imposter syndrome based on an individual's perception of their accomplishments (Mark et al., 2019). The CIPS recognizes the fear of evaluation and participant's feeling associated with being less capable than peers. It is also positively worded to minimize social desirability effects. Scoring allows for ranges between 20 and 100 with higher scores indicating greater levels of imposter syndrome.

Data Analysis Plan

Following data collection, the gathered data underwent thorough analysis utilizing multiple regression analyses and simple linear regression analyses. The complete statistical analysis process was executed using IBM SPSS Statistics (Version 27) for analysis. Multiple regression analysis was utilized to explore the relationship between racial discrimination, self-efficacy, and imposter syndrome. A simple linear regression was conducted to ascertain if racial discrimination and self-efficacy, respectively, could serve as predictors of imposter syndrome among Black counseling students.

Data collected from the demographic questionnaire, DLE, CSES, and CIPs were input into IBM SPSS Statistics (Version 27). I utilized descriptive statistics to understand the population of participants through data collected using the demographic questionnaire. Holcomb (2016) reported that descriptive statistics are used to analyze and describe data to summarize and provide organization of commonalities and differences

among the population of participants (Thomas, 2019). I reported means, standard deviations, and frequencies for data I obtained from the demographic questionnaire.

The data produced by the demographic questionnaire, DLE, CSES, and CIPs were also analyzed and used to make inferences concerning the sample of participants, Black counseling students. Martella et al. (2013) reported that correlation statistics are regarded as descriptive statistics. Correlational analysis was used to examine the degree of relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, and to examine if racial discrimination or self-efficacy predicted imposter syndrome. Specifically, a multiple regression analysis was utilized to test the study's first hypothesis, and simple linear regressions were used to test hypotheses two and three. Bürkner and Vuorre (2019) reported that compared with metric models, ordinal models provide better theoretical interpretation and numerical inference from ordinal data. The correlational statistics afforded me the opportunity to imply the nature of the relationship between the established criterion and predictor variables (Martella et al., 2013).

Research Questions and Hypotheses

The current study was guided by the following research questions and hypotheses:

RQ 1: What is the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, as measured by scores on the Daily Life Experiences Scale (DLES), Counselor Self-Efficacy Scale (CSES), and the Clance Imposter Phenomenon Scale (CIPS)?

H_0: There is no statistically significant relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, as measured by scores on the DLES, CSES, and the CIPS.

H_1: There is a statistically significant relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, as measured by scores on the DLES, CSES, and the CIPS.

- Predictor Variables (PVs): Racial Discrimination, as measured by the DLES, and Self-Efficacy, as measured by CSES.
- Criterion Variable (CVs): Imposter Syndrome, as measured by the CIPS.
- Statistical Analysis: Multiple linear regression

RQ 2: Does racial discrimination predict imposter syndrome among Black counseling students, as measured by scores on the Daily Life Experiences Scale (DLES) and the Clance Imposter Phenomenon Scale (CIPS)?

H_0: Racial discrimination does not predict imposter syndrome among Black counseling students, as measured by scores on the DLES and the CIPS.

H_2: Racial discrimination predicts imposter syndrome among Black counseling students, as measured by scores on the DLES and the CIPS.

- Predictor Variable (PV): Racial Discrimination, as measured by the DLES.
- Criterion Variable (CV): Imposter Syndrome, as measured by the CIPS.

Statistical Analysis: Simple linear regression

RQ 3: Does self-efficacy predict imposter syndrome among Black counseling students, as measured by scores on the Counselor Self-Efficacy Scale (CSES), and the Clance Imposter Phenomenon Scale (CIPS)?

H_0: Self-efficacy does not predict imposter syndrome among Black counseling students, as measured by scores on the CSES, and the CIPS.

H_3: Self-efficacy predicts imposter syndrome among Black counseling students, as measured by scores on the CSES, and the CIPS.

- Predictor Variable (PV): Self-Efficacy, as measured by CSES.
- Criterion Variable (CV): Imposter Syndrome, as measured by the CIPS.
- Statistical Analysis: Simple linear regression

Threats to Validity

Internal validity is the extent to which you can assert that the positive or negative relationships ascertained in a study cannot be supported by alternative influences or components (Flannelly et al., 2018). External validity is the extent to which a study's findings can be generalized. Threats to external validity may threaten the generalizability of the study's results and their ability to be replicated as well as create challenges (Martella et al., 2013). The threats to internal validity in this study included mortality, history, and selection bias. Experimental mortality refers to the loss of participants, potentially due to participants not completing the survey (Moutinho, 2011). Experimental mortality can potentially change the nature of the population of participants and create defectiveness within the results of the analysis (Moutinho, 2011). Surveys that are incomplete were treated as defective surveys and were be excluded from the data.

History is another threat to internal validity that ensues when an event or situation occurs prior to or concurrently with the collection of data in the study that may affect the participants' responses (Martella et al., 2013). With recent high points and emphasis on racial injustice within the United States related to recent widely publicized murders of

Black men and women (e.g., Ahmaud Arbery, George Floyd, and Breonna Taylor), inequalities, biases, and political upheaval, participants' responses regarding racial discrimination may be influenced by recent events. To address this threat to validity I reiterated clear direction for the DLES that responses should reflect participants' respective experiences with racial discrimination within the past year rather than the current racial and political climate within the United States.

I utilized the convenience sampling technique for this study, which is a nonprobability sampling method. This method of sampling may create a selection bias threat to the validity of the study as participants are not selected at random (Martella et al., 2013). To address and reduce this threat, I requested that all students within the counseling programs at the specified universities and organizations who identify as Black are invited to participate in the study. Although this did not increase the generalizability of the results to the general population, which is a threat to the study's external validity, it did increase the generalizability of the study to populations with similar characteristics to the sample of participants within the study (Martella et al., 2013).

Ethical Procedures

I followed Walden University's IRB standards for conducting research. IRB approval was granted before data collection began and prior to contact with any participants. I formulated an introductory email that included the purpose of the study along with the link to complete the survey via SurveyMonkey. The introductory email also contained information regarding confidentiality, period of data collection, my contact information for questions or concerns regarding the study, and the Walden University IRB approval number. An automatic link for the informed consent populated

after opening the introductory email. The informed consent provided potential participants with information regarding the voluntariness of their participation in the study. The informed consent also described the potential risks and benefits of participating in the study. Providing information regarding the risks associated with participation equips participants with the knowledge necessary to confirm their participation or withdraw their participation from the study. There was no personally identifiable information collected or gathered from participants. After the data were collected, I stored it in digital form on a password protected laptop. As required by Walden University the data from the study will be stored for five years after which I will destroy it. There were no incentives provided to participants for participation in this study.

Summary

In this chapter, I provided a depiction of the methodology that I used to complete this quantitative correlation study to analyze the predictive relationship between racial discrimination, self-efficacy, and imposter syndrome among Black American counseling students. To complete the study and obtain data from participants, I utilized the DLE, CSES, CIPS, as well as a demographic questionnaire. In the next chapter, I will discuss the data collection process as well as the data analysis. Furthermore, I will be providing the answers to my proposed research questions based on the analysis of the data.

Chapter 4: Results

Introduction

The purpose of this quantitative regression analysis study was two-fold. First, this study examined the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. Second, this study examined if racial discrimination predicted imposter syndrome, and if self-efficacy predicted imposter syndrome. This study also aided in contributing to the limited body of literature regarding the development of Black counseling students. It is hoped that the findings of this study will aid counselor training programs, counselor training supervisors, and counseling services departments and agencies in understanding the importance of incorporating effective techniques and methods that aid in the development of counseling students.

The current study was guided by the following research questions and hypotheses:

RQ 1: What is the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, as measured by scores on the Daily Life Experiences Scale (DLES), Counselor Self-Efficacy Scale (CSES), and the Clance Imposter Phenomenon Scale (CIPS)?

H_0: There is no statistically significant relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, as measured by scores on the DLES, CSES, and the CIPS.

H_1: There is a statistically significant relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, as measured by scores on the DLES, CSES, and the CIPS.

- Predictor Variables (PVs): Racial Discrimination, as measured by the DLES, and Self-Efficacy, as measured by CSES.
- Criterion Variable (CVs): Imposter Syndrome, as measured by the CIPS.
- Statistical Analysis: Multiple linear regression

RQ 2: Does racial discrimination predict imposter syndrome among Black counseling students, as measured by scores on the Daily Life Experiences Scale (DLES) and the Clance Imposter Phenomenon Scale (CIPS)?

H_0: Racial discrimination does not predict imposter syndrome among Black counseling students, as measured by scores on the DLES and the CIPS.

H_2: Racial discrimination predicts imposter syndrome among Black counseling students, as measured by scores on the DLES and the CIPS.

- Predictor Variable (PV): Racial Discrimination, as measured by the DLES.
- Criterion Variable (CV): Imposter Syndrome, as measured by the CIPS.

Statistical Analysis: Simple linear regression

RQ 3: Does self-efficacy predict imposter syndrome among Black counseling students, as measured by scores on the Counselor Self-Efficacy Scale (CSES), and the Clance Imposter Phenomenon Scale (CIPS)?

H_0: Self-efficacy does not predict imposter syndrome among Black counseling students, as measured by scores on the CSES, and the CIPS.

H_3: Self-efficacy predicts imposter syndrome among Black counseling students, as measured by scores on the CSES, and the CIPS.

- Predictor Variable (PV): Self-Efficacy, as measured by CSES.

- Criterion Variable (CV): Imposter Syndrome, as measured by the CIPS.
- Statistical Analysis: Simple linear regression

Data Collection

I received Walden University Institutional Review Board approval on January 7, 2022 (approval # 01-07-22-0754373). I launched my survey in SurveyMonkey on January 10, 2022, at which time individuals who met the criteria for participation had access to the survey. The survey was comprised of the Daily Life Experience Scale (DLES), the Counselor Self-Efficacy Scale (CSES), the Clance Imposter Phenomenon Scale (CIPS), and my demographics questionnaire. A link to the survey was sent via email to department chairs of counseling programs at 10 Historically Black Colleges and Universities (HBCUs). The emails were sent directly to counseling department chairs in an effort to increase the likelihood that the surveys would be sent to the counseling students through their respective listservs. An announcement was also posted in a Facebook group for Black counseling students. Lastly, an announcement advertising the study was published in a research participant pool at my current university.

The initial survey invitations were distributed on January 10, 2022. Between January 10, 2022, and March 2, 2022, I obtained 39 survey submissions. I sent out the second round of survey invitations to the HBCU chairpersons on March 3, 2022. Between March 3 and April 3, 2022, I obtained 26 survey submissions. I sent out the third round of survey invitations to the same department chairs on April 4, 2022. Between April 4 and June 4, 2022, I obtained 38 survey submissions. After three distributions of survey invitations, I received 103 completed survey submissions, exceeding my sample size requirement of 76, per the a priori analysis explained in Chapter 3. Data from the

surveys were downloaded from SurveyMonkey into IBM SPSS Statistics (Version 27) for statistical analysis.

Results

In this section, I will provide descriptive statistics that characterize the sample, evaluate assumptions, and report statistical analysis findings.

Baseline Descriptive and Demographic Characteristics

I collected the following demographics information: age, gender identity, marital status, identified race of partner, employment status, parents' highest level of education, participant highest level of education, number of siblings, number of children, predominant race of childhood environment, HBCU enrollment, enrollment status/fulltime or parttime, enrollment status/number years enrolled, and state of residence. Of the 103 participants, the majority (66%) were between the ages of 31 and 40 years. Majority of the participants identified as female (73%) and were employed full-time (43%). Of those who reported being married, the majority reported being married to a Black spouse or partner (74%). Most participants were employed full-time while enrolled in their program (43%). Participants largely reported being in their master's program 1 to 2 years while completing the survey. Less than half (42%) reported currently being enrolled at a HBCU and less than half (46%) reported being a HBCU graduate. See Table 1 for participant demographics.

Assumption Testing

Preceding the analysis, I tested the assumptions using the following: VIF values, P-P plot, scatter plots, and histogram. VIF values were used to test the assumption of no multicollinearity between variables (Table 2). I tested the assumption of normality by

analyzing the P-P plot to show that the data points did not have an intense deviation from the normal line (Figure 1). The scatterplot was utilized to analyze the assumption of homoscedasticity. I also used a histogram of the distribution of the presence of imposter syndrome to assess normal distribution (Figure 2). The histogram indicated normal distribution ($M = 0.00$, $SD = 0.99$).

Table 1

Participant Demographic Characteristics as Frequencies and Percentages of the Sample

Characteristic	*F*	%
Age in years		
18–20	0	0.00
21–30	32	28.16
31–40	65	66.01
≥40	6	5.83
Identified gender		
Male	23	22.33
Female	75	72.82
Transgender female	1	0.97
Transgender male	1	0.97
Intersex	1	0.97
Other	2	1.94
Spouse/partner's race		
Black or African American	71	73.96
White	10	10.42
Latinx	5	5.21
Asian	4	4.17
Pacific Islander	2	2.08
Native or American Indian	0	0.00
Mixed	4	4.17
Employment status		
Employed full-time	44	42.72
Employed part-time	29	28.16
Self-employed	8	7.77
Military	8	7.77
Retired	5	4.85
Unemployed	9	8.74
Mother's highest education		
Some high school	8	7.77

Characteristic	*F*	%
High school	28	27.18
Some college	24	23.30
Bachelor's degree	27	26.21
Master's degree	13	12.62
Specialist's degree	1	0.97
Doctoral degree	2	1.94
Father's highest education		
Some high school	6	5.83
High school	41	39.81
Some college	22	21.36
Bachelor's degree	16	15.53
Master's degree	12	11.65
Specialist's degree	2	1.94
Doctoral degree	4	3.88
Participant's highest education		
Bachelor's degree	76	73.79
Master's degree	19	18.45
Specialist's degree	0	0.00
Doctoral degree	8	7.77
No. siblings		
0	17	16.50
1	31	30.10
2	25	24.27
3	18	17.48
4	5	4.85
≥5	7	6.80
No. children		
0	43	41.75
1	23	22.33
2	22	21.36
3	9	8.74
4	3	2.91
≥5	3	2.91
Years enrolled in program		
<1	14	13.86
1	12	11.88
1–2	35	34.65
2	34	33.66
>2	6	5.94
Enrolled at HBCU		
Yes	43	41.75
No	60	58.25
HBCU graduate		
Yes	47	45.63

Characteristic	*F*	%
No	56	54.37

Note. HBCU = historically Black college or university.

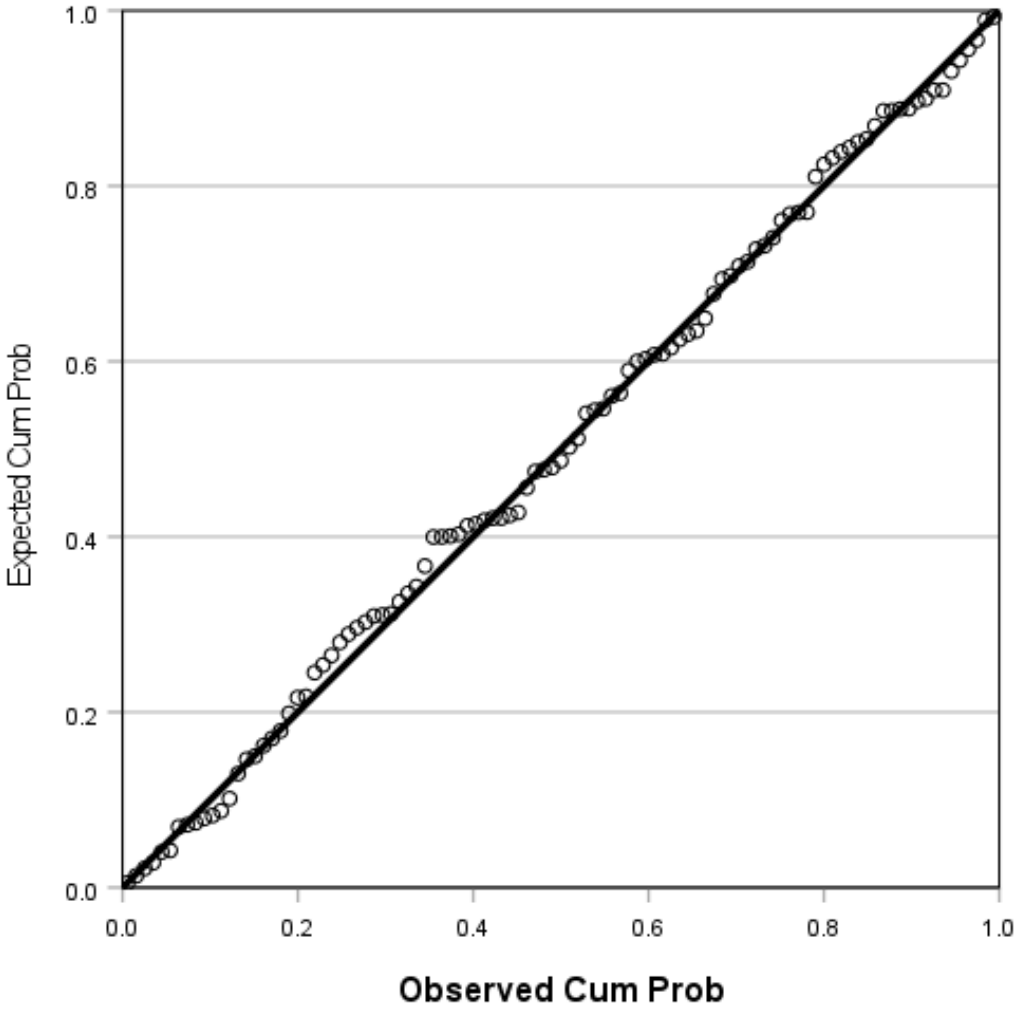
Table 2

Coefficients for Independent Variables' Collinearity Statistics

Model	Tolerance	Variance inflation factor
Racial discrimination	.956	1.046
Self-efficacy	.956	1.046

Figure 1

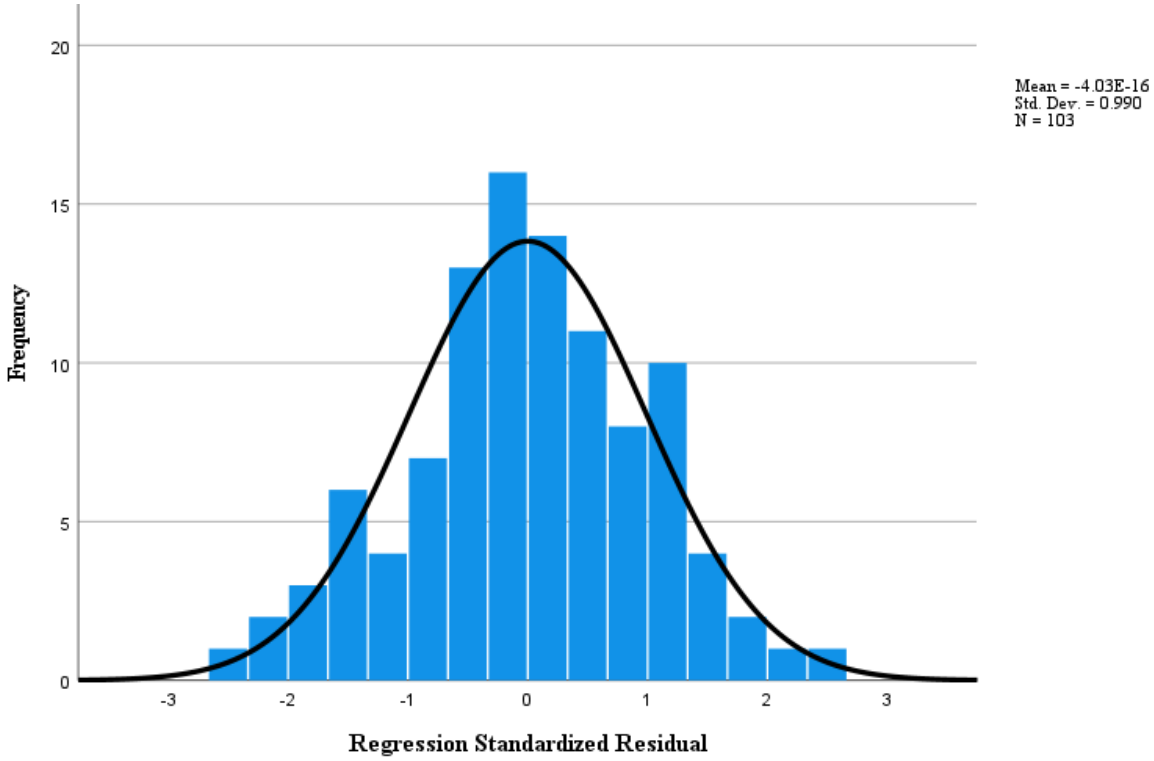
Normal Probability–Probability Plot of Regression Standardized Residual For Imposter Syndrome, the Dependent Variable



Note. Cum prob = cumulative probability.

Figure 2

Histogram for Imposter Syndrome, the Dependent Variable



According to Menard (2009), increased effects of multicollinearity between predictors are indicated by high VIFs. VIFs that are determined to be greater than 5 are concerning, however VIFs determined to be 10 or greater are the maximum limit. In this analysis, imposter syndrome (IP) was identified as the dependent variable and racial discrimination (RD) and self-efficacy (CSES) were identified as the independent variables. VIFs were calculated to detect multicollinearity between predictors. High VIFs indicate increased effects of multicollinearity in the study. Gignac (2019) reports that in the presence of only two predictors the tolerance and VIF scores will be identical, it is only when there are three or more predictors that these values will start to differ. As

shown in Table 2, VIFs for each predictor variable in this study is lower than 5, with both racial discrimination (DLE) and self-efficacy (CSES) having a VIF of 1.046.

When testing the assumption of normality, I utilized the P-P plot. Achen (2021) states that normal probability plots, like the P-P plot, assesses whether data is normally distributed and visually displays normality by establishing that data points do not largely deviate from normal line. This is depicted in Figure 1.

Hypotheses

A multiple linear regression analysis was utilized to investigate the relationship between the criterion variable and the predictor variables. I tested hypothesis 1 using multiple regressions in IBM SPSS Statistics (Version 27). Two simple linear regressions were conducted to determine whether racial discrimination or self-efficacy could predict imposter syndrome among Black counseling students.

Null Hypothesis 1

Null hypothesis 1 reported that there would be no statistically significant relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, as measured by scores on the DLES, CSES, and the CIPS. A multiple linear regression was used to determine if there was a relationship between the predictor variables (racial discrimination and self-efficacy) and the criterion variable (imposter syndrome).

The regression equation resulted with (F (2,100) = 0.623, p< .538), with an adjusted R^2 of .012. The results suggest that as a set racial discrimination and self-efficacy account for 1.2% of the variance in the presentation of imposter syndrome. However, the analysis also indicated that while there is a very slight relationship present

between the predictor variables and the criterion variable, it is not a significant relationship as $p<.538$ which is greater than .05. The results of the multiple linear regression are displayed in Table 3.

Table 3

Analysis of Variance: Independent Variables and Imposter Syndrome

Component	*SS*	*df*	*MS*	*F*	*p*
Regression	127.526	2	63.763	.623	.538
Residual	10228.396	100	102.284		
Total	10355.922	102			

Note. Criterion variable was imposter syndrome. Predictors were the constant, racial discrimination, and self-efficacy.

Table 4 shows the regression coefficients that assessed if either predictor variable was independently significantly correlated to the criterion variable. Regarding racial discrimination, while controlling for self-efficacy, the regression coefficient (ß = 0.430, $t = 0.768$, $p = .444$) indicates that there is not a significant relationship between racial discrimination and imposter syndrome. For self-efficacy, while controlling for racial discrimination, the regression coefficient (ß = 0.084, $t = 0.954$, $p = .342$ .001) also indicates that there is not a significant relationship between self-efficacy and imposter syndrome. Therefore, the analyses indicate that there is no uniquely significant relationship between either predictor variable (racial discrimination or self-efficacy) and the criterion variable (imposter syndrome). With these findings, the hypothesis for research question 1 was rejected and the null hypothesis was confirmed, which indicated

that there was no statistically significant relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students.

Table 4

Multiple Linear Regression Predicting Imposter Syndrome

Variable	*B*	*SE B*	β	*t*	*p*
Constant	51.587	5.616		9.186	<.001
Racial discrimination	0.430	0.560	.078	0.768	.444
Self-efficacy	0.084	0.088	.097	0.954	.342

Note. Criterion variable was imposter syndrome.

Null Hypothesis 2

Null hypothesis 2 posited that racial discrimination does not predict imposter syndrome among Black counseling students, as assessed by the DLES and the CIPS. To evaluate the strength and nature of the relationship between the predictor variable (racial discrimination) and the criterion variable (imposter syndrome) a simple linear regression analysis was employed.

The results from the simple linear regression analysis show that the intercept (B0) is 55.85 with a standard error of 3.34, and this value is statistically significant ($t=16.43$, $p<0.001$). this intercept represents the estimated level of imposter syndrome when the score of racial discrimination is zero. However, the coefficient for racial discrimination (B1) is 0.32 with a standard error of 0.56, and this coefficient is not statistically significant ($t=0.58$, $p=0.419$). This indicates that racial discrimination does not significantly predict imposter syndrome. In summary, while the intercept is statistically significant and provides a reliable baseline for imposter syndrome, racial discrimination

does not significantly explain the variation in imposter syndrome. These results are detailed in Table 5.

Table 5

Simple Linear Regression to Predict Imposter Syndrome

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	55.852	3.399		16.433	<.001
	Racial Discrimination	.317	.547	.058	.580	.563

a. Criterion Variable: Imposter Syndrome

Note. N = 103 The chosen level of significance was .05.

Null Hypothesis 3

Null hypothesis 3 reported that self-efficacy does not predict imposter syndrome among Black counseling students, as measured by the CSES and the CIPS. To measure the strength of the relationship between the predictor variable (self-efficacy) and the criterion variable (imposter syndrome) I used a simple linear regression analysis.

The results of the simple linear regression analysis indicate that the intercept ($\beta 0$) is 54.75 with a standard error of SE $\beta 0 = 3.81$, and this value is statistically significant ($t = 14.37$, $p < 0.001$) representing the estimated score of imposter syndrome when self-efficacy is zero. However, the coefficient of self-efficacy ($\beta 1$) is 0.070 with a standard error of SE $\beta 1 = 0.086$, and this coefficient is not statistically significant ($t = 0.81$, $p = 0.412$). this suggests that self-efficacy does not significantly predict imposter syndrome.

In summary, while the intercept is statically significant and provides a reliable baseline estimate for imposter syndrome, self-efficacy does not significantly contribute to explaining the variance of imposter syndrome. The results of the simple linear regression analysis regarding the correlation between self-efficacy (predictive variable) and imposter syndrome (criterion variable) is displayed in Table 6. A simple linear regression was used to assess whether self-efficacy predicts imposter syndrome among Black counseling students.

Table 6

Simple Linear Regression to Predict Imposter Syndrome

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	54.751	3.809		14.373	<.001
	Self-Efficacy	.070	.086	.081	.812	.419

a. Criterion Variable: Imposter Syndrome

Note. *N* = 103 The chosen level of significance was .05.

Table 7 shows the coefficients table to assess if self-efficacy was a predictor of imposter syndrome. The results revealed that self-efficacy does not significantly predict imposter syndrome (B = 0.32, β = 0.0858, t=0.58, p = 0.4563). Despite the unstandardized coeffect suggesting a slight increase in imposter syndrome with higher self-efficacy, the effect is both statistically insignificant and minimum in magnitude, indicating that self-efficacy does not have meaningful influence on imposter syndrome.

Overall, there is not enough evidence to report that the influence between the predictor variable and the criterion variable exist in the population. With this analysis the hypothesis was rejected, and the null hypothesis was confirmed, which indicated that self-efficacy was not a statistically significant predictor of imposter syndrome among Black counseling students.

Table 7

Simple Linear Regression to Predict Imposter Syndrome

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	55.852	3.399		16.433	<.001
	Racial Discrimination	.317	.547	.058	.580	.563

a. Dependent Variable: Imposter Syndrome

Note. $N = 103$, and $p = .419$. The chosen level of significance was .05.

Summary

A multiple regression and two simple linear regression analyses were conducted to test the null hypotheses in this study. The results for the first research question revealed that there was not a statistically significant relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students, as measured by scores on the DLES, CSES, and the CIPS. The null hypothesis for RQ1 was accepted.

The results of the second and third research questions reveal that neither racial discrimination or self-efficacy were uniquely significant predictors of imposter syndrome, as measured by scores on the DLES, CSES, and the CIPS. The hypotheses for RQ2 and RQ3 were rejected, and the null hypotheses were accepted.

Based on the findings presented in this study, there was not significant evidence that the variables are related or that either racial discrimination or self-efficacy positively predict imposter syndrome among Black counseling students. Chapter 5 will provide the summary findings, limitations, recommendations, and implications from the study for research conducted in the future as well as present research.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to examine the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. In addition, the purpose of this study was to contribute to the limited body of literature regarding the development of Black counseling students. Data analysis methods utilized in this study included multiple linear regression and simple linear regression analyses. Moreover, a multiple regression analysis was utilized to assess the potential relationship between racial discrimination, and self-efficacy, and imposter syndrome. Two simple linear regression analyses were conducted to identify whether racial discrimination and self-efficacy served as predictors for imposter syndrome among Black counseling students. Results showed that there was no significant relationship between racial discrimination, self-efficacy, and imposter syndrome. The results also indicate that neither racial discrimination nor self-efficacy are predictors of imposter syndrome. While all three null hypotheses were confirmed, the goal of contributing to the literature regarding Black counseling students was still met. As the null hypotheses were confirmed, this provides an opportunity for further curiosity and will inform the next research questions to be analyzed by prospective researchers. The discussion of the interpretations of finding as well as comparisons of findings of the current study to previous studies will be discussed in this chapter. The limitations of the study, recommendations for future studies, and implications of the study will also be discussed.

Interpretation of Findings

Question 1

The first question investigated the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. The predictor variables, racial discrimination, and self-efficacy, were investigated to identify their relationship with the criterion variable imposter syndrome. The results of the first analysis revealed that there was not a statistically significant relationship between the predictor variables and the criterion variable. The hypothesis for the first question was rejected and the null hypothesis was confirmed.

Previous research has indicated that racial discrimination contributes to diminished feelings of competence, intelligence, and readiness to apply learned skills among Black students during their graduate programs (Stone et al., 2018). Consistent with this, other studies (Bernard et al., 2017; Brody et al., 2014; Cokley et al., 2013; Han et al., 2011; Lee et al., 2020), have supported these indications. However, the present study diverges by finding that racial discrimination is not correlative to imposter syndrome, which involves negative perceptions of one's achievements or abilities.

In their study McClain et al. (2016) found that Black college students reported elevated levels of imposter syndrome linked to minority stressors and ethnic identity, with these experiences being positively associated with their mental health status. In contrast, the current study did not find a correlation between imposter syndrome and racial discrimination. McClain et al. also observed that minority students, particularly Black students at predominantly White institutions, experienced higher levels of imposter syndrome. however, in the current study, 47% of participants were graduates of

Historically Black Colleges and Universities (HBCUs), and 43% were currently enrolled at HBCUs, which may have reduced their exposure to racial discrimination in the academic environment. Williams et al. (2021) reported that levels of racial discrimination at HBCUs for Black students occurs at much lower rates than at primarily white institutions. Williams et al. also reported that the academic practices, specifically pedagogy, at HBCUs aids in the affirmation of Black students. The discrepancies between the results of the current study and those of previous research may be attributed to differences in the types of universities attended by participants, specifically their affiliations with HBCUs and other culturally supportive environments.

The findings of this study do not demonstrate a significant relationship between racial discrimination, self-efficacy, and imposter syndrome. However, this study contributes to the field by enhancing the scientific precision of existing literature and preventing misleading conclusions based on assumptions. Additionally, the current study opens avenues for future researchers to explore alternative explanations for the occurrence of imposter syndrome among Black counseling students.

Question 2

The second research question explored whether racial discrimination predicted imposter syndrome among Black counseling students. The analysis examined the impact of racial discrimination on imposter syndrome. The results indicate that racial discrimination does not significantly predict imposter syndrome, meaning there is no statistically significant relationship between the two variables in this study.

The results of the current study do not align with those of previous research concerning racial discrimination and imposter syndrome. Specifically, Smith et al. (2011)

demonstrated that intersecting identities, such as race and gender, significantly impact imposter feelings in academic settings, highlighting that racial discrimination can exacerbate these feelings. The discrepancies between the results of the current study and those reported by Smith et al. (2011) included African American and Latinx students, encompassing both first-generation and immigrant individuals. The experiences of these groups can differ markedly; while both Black and Latinx (including first-generation and immigrant) students may encounter imposter syndrome and racial discrimination, the underlying factors and manifestations of these issues can vary. Black students may contend with systemic racism and cultural expectations, whereas Latinx students, particularly those who are first-generation or immigrants, might face challenges related to cultural adjustment and integration into a new environment. These variations in participant backgrounds and experiences could account for the differences observed between the current study and Smith et al..

Question 3

The third research question examines whether self-efficacy predicts imposter syndrome among Black counseling students. The predictor variable, self-efficacy, was investigated to identify its influence on the criterion variable imposter syndrome. The results of the analysis show that self-efficacy is not a statistically significant predictor of imposter syndrome.

Parkman (2016) explored multiple factors contributing to imposter syndrome, emphasizing that low self-efficacy can intensify feelings of inadequacy, especially within academic contexts. According to Parkman's findings, individuals with diminished self-efficacy are more prone to experience imposter syndrome, driven by their perceptions of

inadequacy and fear of failure. However, the current study may not align with Parkman's conclusion due to Parkman's diverse participant pool, which included individuals at various academic stages-such as high school graduates, undergraduate students, and graduate students. This range of academic experience may introduce variability in the results, potentially leading to different outcomes compared to those reported in the current study.

This study explores the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. It serves as a crucial starting point for further inquiry into the experiences of this demographic. Despite the lack of statistically significant or predictive relationships in the current findings, the study highlights the need for continued research to better understand these dynamics. By understanding these dynamics, researchers and practitioners can develop more targeted interventions, both academically and clinically, and support systems to address the unique needs and concerns of Black students, ultimately promoting their academic and professional growth and success.

Additionally, this study establishes a foundation for future research in the field of counselor education. This study sets the stage for further investigations to build upon and advance the understanding of the intricate dynamics of racial discrimination, self-efficacy, and imposter syndrome, specifically as they relate to Black counseling students. This study not only enhances scholarly discourse but also promotes the development of more inclusive and supportive research related to Black counseling students.

Limitations of the Study

There were several limitations to consider regarding this study, as with all studies. This study was conducted through an online database, SurveyMonkey. This allowed participants the ability to complete the survey at their convenience, however completing the survey online may have limited participants' ability to fully understand the purpose of the study. Another limitation regarding utilizing an online survey data collection system is that participants may not answer questions truthfully or read them thoroughly. Shrout et al. (2018) reported that when participants inaccurately answer it affects internal validity and creates limitations regarding the study's results.

This study may have limited generalizability as this study only applies to a specific group of individuals, Black counseling students. This is a limitation as other racial and ethnic groups may not experience racial discrimination at the same rates, in similar ways, nor have the similar daily life experiences as the population of participants in this study. This difference may result in the study not applying to all counseling students. In addition, the DLE specifically assesses firsthand encounters with racism, however, not all racial groups experience racism in the same manner or to the same degree.

Lastly, this study was designed quantitatively and utilized correlational analysis. I used convenience sampling to recruit participants, meaning participants were not selected at random. Oliveira (2019) reported that convenience sampling, in quantitative studies, limits the internal validity and generalizability of a study.

Recommendations

Based on the results of this study, there are several recommendations that can be made for future research and future studies on racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. First, it may be beneficial to conduct research using random sampling. Random sampling increases the likelihood that all participants within a target population are given an equal opportunity to be selected for participation (Oliveira et al., 2019).

It may also be beneficial to conduct this study, or similar studies, using a larger sample size. Larger studies provide stronger and more reliable results because they have smaller margins of error and lower standards of deviation (Mishra et al., 2019). The larger the study sample size, the smaller the margin of error. Obtaining a larger sample size will allow future researchers to control the risk of reporting false findings. The larger the sample number, the greater the precision of results will be (Mishra et al., 2019).

Although the results of the study did not indicate that a statistically significant relationship was present between racial discrimination, self-efficacy, and imposter syndrome, the findings are quite vital. Additional findings taken from the study indicate that there was a statistically significant relationship between racial discrimination and self-efficacy. With a correlation coefficient of $-R = 0.211$, there is a negative correlation between racial discrimination and self-efficacy. Meaning that as the rate of racial discrimination increases the level of self-efficacy decreases, this also occurs vice versa. The significance between these variables was $p < 0.033$, less than the chosen level of significance of $p = 0.05$, indicating that this correlation is statistically significant. Although a correlation exists between the variables, it is weak in nature. This indicates

that the relationship observed is characterized by minimum and inconsistent association. The low strength of this correlation suggests that variations in one variable do not meaningfully or predictably correspond with variations in the other variable. For instance, when examining the relationship between experiences of racial discrimination and reported levels of self-efficacy, a weak correlation may imply that experiences of racial discrimination exert little to no significant impact on self-efficacy levels. Consequently, there is considerable variability in self-efficacy reports, independent of the extent of exposure to racial discrimination. It is my recommendation that further research be conducted regarding these variables to illustrate their impact on Black counseling students. These additional findings are displayed in Table 8.

Table 8

Pearson's Correlation for Racial Discrimination and Self-Efficacy

Variable	1	2
1. Racial discrimination	—	
2. Self-efficacy	−.211	—

Note. $N = 103$, and $p = .033$, so the correlation was significant at the .05 level. The test was two tailed.

While imposter syndrome's implications are widely recognized in the field, this study represents the first known investigation into imposter syndrome among Black counseling students. Further research is essential to elucidate the origins of imposter syndrome, explore effective strategies for addressing it, and examine other factors influencing Black counseling students as they transition from students to clinicians. I

encourage researchers to delve deeper into this area of study to enhance understanding for future colleagues and to better serve current and future clients within Black communities.

Implications

There is limited literature available pertaining to Black counseling students, specifically as it relates to their experiences with racial discrimination, self-efficacy, or imposter syndrome. The results of this study add to the body of literature regarding Black counseling students as well as the three variables. The primary focus of this study was examining the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. A goal of this study was to bring awareness to the Black population of counseling students and their experiences and how these experiences (racial discrimination) affect their thoughts and beliefs (self-efficacy and imposter syndrome).

The findings from this study offer an opportunity for counseling programs to make efforts towards positive social change by promoting the need of additional supportive measures for Black counseling students. Additional implications of trainings, workshops, and additional research can provide additional resources and tools for counselor educators in counseling programs. The findings from this study can also be valuable for counseling organizations to aid with their publications and conference seminars and workshops.

Conclusion

The purpose of this quantitative study was to examine the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling

students. There have been no studies to date regarding the relationship between racial discrimination, self-efficacy, or imposter syndrome as they relate to Black counseling students. The results of this study support the importance of further exploration of research pertaining to Black counseling students. All participants (*N*=103) completed the DLE, CSES, and CIPS anonymously.

Multiple regression analyses and simple linear regression analyses were used to assess the two research questions in the study. The first research question (RQ1) explored the relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. The second research question (RQ2) explored whether self-efficacy predicts imposter syndrome among Black counseling students. The third research question (RQ3) explored whether racial discrimination predicts imposter syndrome among Black counseling students. The results of RQ1 revealed that there was not a statistically significant relationship between self-efficacy and imposter syndrome among Black counseling students. The results of RQ2 reveal that self-efficacy was not statistically significant predictor of imposter syndrome. The results of RQ3 reveal that racial discrimination was not a statistically significant predictor of imposter syndrome.

This study was conducted to fill the gap in research and add to and influence the body of quantitative literature within the counseling profession. In conclusion, while this study added to a small portion of the literature, there still needs to be further research in this area, as well as other areas that pertain to Black counseling students to aid students, practitioners, and educators in our understanding of our Black students, clients, and colleagues.

References

Allen, M. (2017). *The SAGE encyclopedia of communication research methods* (Vols. 14). SAGE Publications, Inc. doi: 10.4135/9781483381411

Arria, A., Caldeira, K., Vincent, K., Winick, E., Baron, R., & O'Grady, K. (2013). Discontinuous college enrollment: Associations with substance use and mental health. *Psychiatric Services, 64* (2): 165–172.

Atif, Q. M., Zahid, L. M., Shumaila, R., Rafique, A., & Akbar, C. M. (2017). Imposter syndrome among Pakistani medical students. *Annals of King Edward Medical University, 23*(2), 107-111. doi:10.18203/2320-6012.ijrms20184031

Bakioglu, F., & Turkum, A. S. (2020). Investigation of the relationships among psychological counselor candidates' counseling self-efficacy, multicultural competence, gender roles, and mindfulness. *International Journal of Progressive Education, 16*(3), 223 239.

Bandura, A. (2012). On the Functional Properties of Perceived Self-Efficacy Revisited. *Journal of Management, 38*(1), 9-44. https://doi.org/10.1177/0149206311410606

Barratt, M. J., Ferris, J. A., & Lenton, S. (2015). Hidden populations, online purposive sampling, and external validity: Taking off the blindfold. *Field Methods, 27*(1), 3 21. doi:10.1177/1525822X14526838

Berger, M., & Sarnyai, Z. (2015). "More than skin deep": stress neurobiology and mental health consequences of racial discrimination. *Stress: The International Journal on the Biology of Stress, 18*(1), 1–10. https://doi-org.ezp.waldenulibrary.org/10.3109/10253890.2014.989204

Bernard, D. L., Hoggard, L. S., & Neblet Jr., E. W. (2017). Racial discrimination, racial identity, and impostor phenomenon: A profile approach. *Cultural Diversity and Ethnic Minority Psychology, 24(1*), 51-61. https://doi.org/10.1037/cdp0000161

Bravata, D. M., Watts, S. A., Keefer, A. L., Madhusudhan, D. K., Taylor, K. T., Clark, D. M., & Hagg, H. K. (2019). Prevalence, predictors, and treatment of impostor syndrome: a systematic review. *Journal of general internal medicine*, 1-24.

Bürkner, P. C., & Vuorre, M. (2019). Ordinal regression models in psychology: A tutorial. *Advances in Methods and Practices in Psychological Science*, *2*(1), 77-101.

Clance, P.R., & Imes, S.A. (1978). The imposter phenomenon in high achieving women: dynamics and therapeutic interventions. *Psychotherapy: Theory Research and Practice, 15,* 241-247. Retrieved from http://www.paulineroseclance.com/pdf/ip_high_achieving_women.pdf

Cokley, K., McClain, S., Enciso, A., & Martinez, M. (2012). An examination of the impact of minority status stress and impostor feelings on the mental health of diverse ethnic minority college students. *Journal of Multicultural Counseling and Development, 41*(2), 82-95. doi:10.1002/j.2161-1912.2013.00029.x

Cohen, C. J. (2011). Millennials & the myth of the post-racial society: Black youth, intra generational divisions & the continuing racial divide in American Politics. *Daedalus*, *2*, 197.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*. Routledge.

Curtis, E. A., Comiskey, C., & Dempsey, O. (2016). Importance and use of correlational research. *Nurse researcher*, *23*(6). Retrieved from http://journals.rcni.com/nurse-researcher/importance-and-use-of-correlational-research-nr.2016.e1382

Dancy, T. E., & Jean-Marie, G. (2014). Faculty of color in higher education: Exploring the intersections of identity, impostership, and internalized racism. *Mentoring & Tutoring: Partnership in Learning*, *22*(4), 354-372. Retrieved from https://d1wqtxtslxzle7.cloudfront.net/95821418/13611267.2014.94573620221215-1-12hdrwolibre.pdf?1671105925=&response-content-disposition=inli

Dancy, T. E., & Brown, M. C. (2011). The Mentoring and induction of educators of color: addressing the impostor syndrome in academe. *Journal of School Leadership*, *21*(4), 607–634.

Domingue, A. D. (2015). Our leaders are just we ourself: Black women college student leaders' experience with oppression and sources of nourishment on a predominately White college campus. *Equity & Excellence in Education, 48(3),* 454-472. Doi:10.1080/10665684.2015.1056713

Edwards, C. W. (2019). Overcoming imposter syndrome and stereotype threat: Reconceptualizing the definition of a scholar. *Taboo: The Journal of Culture and Education, 18 (1)*. https://doi.org/10.31390/ taboo.18.1.03

Eisenberg, D. l, Golberstein E., & Hunt, J. (2009). Mental health and academic success in college. *The B.E. Journal of Economic Analysis & Policy* 9 (1): Article 40.

Eisenberg, D., Lipson S., & Posselt J. (2016). Promoting resilience, retention, and mental health. *New Directions for Student Services* 2016 (156): 87–95.

Farrokhi, F., & Mahmoudi-Hamidabad, A. (2012). Rethinking convenience sampling: defining quality criteria. *Theory & Practice in Language Studies*, *2*(4), 784–792. https://doi.org/10.4304/tpls.2.4.784-792

Flannelly, K. J., Flannelly, L. T., & Jankowski, K. R. (2018). Threats to the internal validity of experimental and quasi-experimental research in healthcare. *Journal of health care chaplaincy, 24*(3), 107-130.

Ghorbanshirodi, S. (2012). The relationship between self-esteem and emotional intelligence with imposter syndrome among medical students of Guilan and Heratsi universities. *Journal of Basic and Applied Science Research, 2*(2), 1793802.doi:10.5923/j.ijbcs.20180701.22

Goertz, G., & Mahoney, J. (2012). A tale of two cultures: Qualitative and quantitative research in the social sciences. *Princeton University Press.* doi:10.1093/pan/mpj017

Hesse-Biber, S. N. (Ed.). (2013). *Feminist research practice: A primer*. Sage Publications.

Holcomb, Z. C. (2016). *Fundamentals of descriptive statistics*. Routledge.

Jager J., Putnick L., & Bornstein H. (2017). II. More than just convenient: The scientific merits of homogeneous convenience samples. *Monographs of the society for research in child development, 82(2), 13-30.*

Kadam, P., & Bhalerao, S. (2010). Sample size calculation. *International journal of Ayurveda research*, *1*(1), 55–57. https://doi.org/10.4103/0974-7788.59946

Kamarzarrin, H., Khaledian, M., Shooshtari, M., Yousefi, E., & Ahrami, R. (2013). A study of the relationship between self-esteem and the imposter phenomenon in the

physicians of Rasht city (Iran), *European Journal of Experimental Biology*, *3(2)*, 363-366.

Kohler, U., Kreuter, F., & Stuart, E. A. (2019). Nonprobability sampling and causal analysis. *Annual review of statistics and its application*, *6*, 149-172.

Kupczynski, L., Garza, K., & Mundy, M (2018). Counselor self-efficacy: The effects of online preparatory counseling programs. *Journal on Educational Psychology*, *12*(1), 17.

Kylynç, H., & Fırat, M. (2017). Opinions of expert academicians on online data collection and voluntary participation in social sciences research. *Educational Sciences: Theory & Practice*, *17*(5), 1461–1486. https://doi.org/10.12738/estp.2017.5.0261

Lane, J. A. (2014). The imposter phenomenon among emerging adults transitioning into professional life: Developing a grounded theory. *Counselor Education Faculty Publications and Presentations,* 24(1), 10-24. doi:10.1002/adsp.12009

Lee, E., & Morfitt, P. (2020). Imposter syndrome, women in technical services, and minority librarians: The shared experience of two librarians of color. *Technical Services Quarterly*, *37*(2), 136–147. doi:10.1080/07317131.2020.1728125.

Lindsay-Dennis, L. (2015). Black feminist-womanist research paradigm: Toward a culturally relevant research model focused on African American girls. *Journal of Black Studies*, *46*(5), 506–520. doi:10.1177/02193475583664

Malinauskas, R. K. (2017). Enhancing of self-efficacy in teacher education students. *European Journal of Contemporary Education*, *6*(4), 732-738.

Mak, K., Kleitman, S., & Abbott, M. (2019). Impostor phenomenon measurement scales: A systematic review. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.00671

Martella, R. C., Nelson, J. R., Morgan, R. L., & Marchand-Martella, N. E. (2013). Understanding interpreting educational research. Guilford Press.

McClain, S., Beasley, S. T., Jones, B., Awosogba, O., Jackson, S., & Cokley, K. (2016). An examination of the impact of racial and ethnic identity, impostor feelings, and minority status stress on the mental health of Black college students. *Journal of Multicultural Counseling and Development, 44*, 101–117. doi:10.1002/jmcd.12040

Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Annals of cardiac anesthesia*, *22*(1), 67.

Moutinho, L. (2011). Internal and external validity. *The SAGE Dictionary of Quantitative Management Research*, 147.

Mullangi, S., & Jagsi, R. (2019). Imposter syndrome: Treat the cause, not the symptom. *The Journal of the American Medical Association*, *5*, 403. Retrieved from https://jamanetworkcom.ezp.waldenulibrary.org/journals/jama/fullarticle/2740724

Oliveira, H. R., Brito, L. F., Lourenco, D. A. L., Silva, F. F., Jamrozik, J., Schaeffer, L. R., & Schenkel, F. S. (2019). Invited review: Advances and applications of random regression models: From quantitative genetics to genomics. *Journal of dairy science*, *102*(9), 7664-7683.

Peteet, B., Montgomery, L., & Weekes, J. (2015). Predictors of imposter phenomenon among talented ethnic minority undergraduate students. *The Journal of Negro Education, 84*(2), 175-186. doi:10.7709/jnegroeducation.84.2.0175

Qureshi, M. A., Taj, J., Latif, M. Z., Rafique, S., Ahmed, R., & Chaudhry, M. A. (2017). Imposter Syndrome among Pakistani Medical Students. *Annals of King Edward Medical University*, *23*(2), 107–111. doi:10.21649/akemu.v23i2.1563

Ravitch, S. M., & Carl, N. M. (2016). *Qualitative research: Bridging the theoretical, and methodological*. Thousand Oaks, CA: Sage.

Schnuerch, M., & Erdfelder, E. (2020). Controlling decision errors with minimal costs: The sequential probability ratio t test. *Psychological Methods*, *25*(2), 206–226. https://doi.org/10.1037/met0000234

Soper, D. S. (2020a). A-priori sample size calculator for multiple regression [Software]. http://www.danielsoper.com/statcalc

Soper, D. S. (2020b). Effect size calculator for multiple regression [Software]. https://www.danielsoper.com/statcalc

Speak, A., Escobedo, F. J., Russo, A., & Zerbe, S. (2018). Comparing convenience and probability sampling for urban ecology applications. *Journal of applied ecology*, *55*(5), 2332-2342.

Thompson, C. B. (2009). Descriptive data analysis. *Air medical journal*, *28*(2), 56-59.

Urwin, J. (2018). Imposter phenomena and experience levels in social work: An initial investigation. *British Journal of Social Work, 48*(5), 1432-1446.

Van Dinther, M., Dochy, F., & Segers, M. (2011). Factors affecting students' self efficacy in higher education. *Educational Research Review, 6*(2), 95-108. https://www.sciencedirect.com/science/article/abs/pii/S1747938X1000045X

Villwock, J. A., Sobin, L. B., Koester, L. A., & Harris, T. M. (2016). Impostor syndrome and burnout among American medical students: a pilot study. *International journal of medical education*, *7*, 364–369. https://doi.org/10.5116/ijme.5801.eac4

Waclawski, E. (2012). How I use it: Survey monkey. *Occupational Medicine*, *62*(6), 477-477.

Watt, H., Ehrich, J., Stewart, S., Snell, T., Bucich, M., Jacobs, N., Furlonger, B., & English, D. (2019). Development of the psychologist and counsellor self efficacy scale. *Higher Education, Skills, and Work-Based Learning*, *9*(3), 485 509. https://doi.org/10.1108/HESWBL-07-2018-0069

Wu Suen, L., Huang, H., & Lee, H. (2014). A Comparison of Convenience Sampling and Purposive Sampling. *Journal of Nursing*, *61*(3), 105–111. https://doi.org/10.6224/JN.61.3.105

Younes, F., Halawi, G., Jabbour, H., El Osta, N., Karam, L., Hajj, A., & Rabbaa, Khabbaz, L. (2016). Internet addiction and relationships with insomnia, anxiety, depression, stress, and self-esteem in university students: A cross sectional designed study. *PLoS ONE*, *11*(9), 1–13. doi:10.137/journal.pone.0161126

Appendix A: Walden University Research Pool

Greetings,

I am a doctoral candidate at Walden University. To fulfill requirements for the doctoral dissertation I am conducting a research study on the relationship racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. All masters level counseling students who identify as Black or African American are invited to participate.

The anonymous survey takes 10-15 minutes to complete and has been approved by Walden University Institutional Review Board. Your participation in the study is voluntary and you may discontinue the survey at any time without penalty. A consent form is included at the beginning of the survey. Please also share this request with anyone else who may qualify for the study.

If you would like to participate, please click here.

(I will insert survey link here)

I can be reached via e-mail at DeeDee.Wednesday@waldenu.edu

Appendix B: Listserv Email Announcement

Greetings,

My name is DeeDee Wednesday, and I am a doctoral candidate at Walden University. In order to fulfill my degree requirements for a PhD in Counselor Education and Supervision under the supervision of my dissertation chair, Dr. Chandra Johnson, I am requesting your assistance in identifying participants for a study called The Relationship between Racial Discrimination, Self-Efficacy, and Imposter Syndrome among Black Counseling Students. Please note, should you also qualify, your participation in this study is much appreciated. The purpose of the study is to examine the predictive relationship between racial discrimination, self-efficacy, and imposter syndrome among Black counseling students. This study also aids to contribute to the limited body of literature regarding the development of Black counseling students. **You must be a master's-level counseling student and identify as a Black/African American.** Participation requests that you complete a short demographic form, and a 10-15-minute survey. Participants may withdraw at any time during the course of the study.

I may be reached at DeeDee.Wednesday@waldenu.edu with any questions or to confirm participation. My dissertation chair is Dr. Chandra Johnson, and she may be reached at Chandra.Johnson@mail.waldenu.edu. The study will be reviewed by Walden University's Institutional Review Board for approval (Approval #). The results may also be used in future publications, conference presentations, and future research.

Please also share this request with anyone else who may qualify for the study.

Thank you for your time and consideration,

DeeDee Wednesday, MA LPC-S

Doctoral Candidate, Walden University.

Appendix C: Demographic Questionnaire

1. What is your identifying race?
a. Black or African American
b. White
c. Latinx
d. Asian
e. Pacific Islander
f. Native or American Indian
2. What is your age range?
a. 18-22
b. 23-27
c. 28-32
d. 33-37
e. 38+
3. What is your marital status?
a. Married
b. Partnered
c. Single
d. Divorced
e. Widowed
4. If married or partnered, what is the identifying race of your spouse or partner?
a. Black or African American
b. White
c. Latinx
d. Asian
e. Pacific Islander
f. Native or American Indian
5. What is your identifying gender?
a. Male
b. Female
c. Transgender female
d. Transgender male
e. Intersex
f. Other
6. How many children do you have?
a. 0
b. 1
c. 2
d. 3
e. 4
f. 5 or 5+
7. How many siblings do you have?
a. 0
b. 1

c. 2
d. 3
e. 4
f. 5 or 5+

8. What is your highest level of education?
a. Bachelor's degree
b. Master's degree
c. Doctoral degree

9. What is your mother's highest level of education?
a. Some high school
b. High School
c. Some college
d. Bachelor's degree
e. Master's degree
f. Doctoral degree

10. What is your father's highest level of education?
a. Some high school
b. High School
c. Some college
d. Bachelor's degree
e. Master's degree
f. Doctoral degree

11. What is your employment status?
a. Full-time student
b. Employed full-time
c. Employed part-time
d. Self-employed
e. Military
f. Retired
g. Unemployed

12. What was the racial make-up of the neighborhood you grew up in?
a. Predominantly Black
b. Predominantly White
c. Mixed
d. International
e. Other

13. What state do you currently reside in?
a. _____

14. What state is the university/college that you are currently enrolled in?
a. _____

15. Are you currently enrolled in a counseling program at a Historically Black College or University (HBCU)?
a. Yes
b. No

16. How long have you been enrolled in your current counseling program?

a. 0-6 months
b. 6-12 months
c. 12-15 months
d. 18-24 months
e. 24 or more months

17. Have you previously received a degree from a HBCU?
a. Yes
b. No