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Self-Efficacy and Perceived Social Support as Predictors of Academic Achievement Among First-Generation African American Females at a Historically Black College and University

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Abstract

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by

Felicia Brown Kelly

MEd, Regent University, 2006

BS, Virginia Commonwealth University, 2000

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

African American, female, first-generation students face unique social and academic challenges due to their triple minority status of being Black, female, and first-generation and often perceiving low social support. The problem this study addressed is the role that self-efficacy and social support play for this group of students is insufficiently known. The purpose of this study was to explore the role that self-efficacy and perceived social support play for first-generation African American females at a Historically Black College and University. Theoretical frameworks for this study were Bandura's self-efficacy theory which analyzes self-efficacy relating to mastery and Bandura's social cognitive theory, which examines the role of social support in shaping self-efficacy. Addressed by the research question of this quantitative study is the extent, if any, that self-efficacy and perceived social support predict academic achievement among first-generation, African American females. A quantitative, correlative research design consisting of a survey to collect data and multiple regression analysis was utilized to investigate relationships between the variables. Findings of this study revealed that self-efficacy significantly predicted academic achievement, while perceived social support did not significantly predict academic achievement. Potential implications for positive social change lie in raising awareness of an academically at-risk student population and empowering those in decision-making roles at higher education institutions with knowledge to design and implement programs, practices, and pedagogy that lend to reducing social inequalities.

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Dedication

I would like to dedicate this dissertation to Faith and Salih. Whatever you set your mind to, you can do. Your mother is proof.

Acknowledgments

God, thank you for your grace and mercy. During my academic studies, you gave me strength when I had none. You have been there to supply my needs, even when I did not have the thoughts or words to ask for what I needed. I thank you, Lord. All glory is due to you, Father, for carrying me through this process. I love you, Lord. I thank you for loving me. I will be your servant for the rest of my life.

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Chapter 1: Introduction to the Study

The extent to which self-efficacy and perceived social support may predict academic achievement among first-generation African American females is the topic of this study. This population of students face challenges, such as race and gender discrimination, marginalization, and a decreased sense of belonging (Abrams et al., 2018; Williams et al, 2020), that are distinct from their non-first-generation peers, males, and peers of other races. A challenge of a different nature is that first-generation students, African American students, and females are often researched in terms of challenges and barriers faced while attending college, diverting attention away from their resilience and their lived experiences which may be used to promote self-growth, advancement of academic disciplines, and community development (Ives & Castillo-Montoya, 2020). These challenges add to the time first-generation African American females take to complete college degree programs (Hobson et al., 2021; Nichols & Evans-Bell, 2017).

Self-efficacy has been found to predict academic achievement directly (Alhadabi & Karpinski, 2020; Alyami et al., 2017; Nasir & Iqbal, 2019; Talsma et al., 2018; Waseem & Asim, 2020), indirectly (Domenech-Betoret et al., 2017), and according to some research studies, not at all (Cho & Shen, 2013; Joo et al., 2013). Perceived social support has been found to predict academic performance (Rodriguez et al., 2017; Tinajero et al., 2020). According to the social cognitive theory, the theoretical framework that guided this research, social support, is a precursor to self-efficacy (Bandura, 1998).

Black women have been associated with perceiving inadequate social support to sustain their mental and emotional health by taking on a superwomen role, having to serve multiple selfless roles due to social and economic necessity, as explained with the strong Black woman

schema (Woods-Giscombe, 2010). Black women are often depicted as strong, independent, and self-sacrificing. Additionally, they are socialized by media, family, and their community to internalize those depictions, which often result in stress, anxiety, and depression. Black women feel obligated to become main sources of support and caretakers and as a result of being available for everyone else, perceive low social and emotional support for themselves (Allen et al., 2019; Liao, 2020; Stanton et al., 2017; Watson-Singleton, 2017; Woods-Giscombe, 2010).

Given the complex experiences of first-generation African American females, Bandura's finding that social support is the foundation for self-efficacy, and Black women's association with inadequate perceived social support, I focused my research on whether self-efficacy and perceived social support predict academic achievement for this population of students. Potential implications for positive social change are that higher education institutions may be able to use the results to implement programs tailored to facilitate academic achievement for first-generation African American females. When assessing the needs of these students, the results of this study may be useful to design instruments with their backgrounds, challenges, and strengths in mind. Community programs aimed at supporting college students may be able to use the information to create social support initiatives for college bound students as well as for continuing education students. The results may be useful for students, themselves, to become cognizant of their self-efficacy level, sources of support, and be better equipped to determine when changes are necessary to facilitate their academic achievement. In this chapter, background information relating to study variables, the problem, purpose, research question and hypotheses, theoretical framework, assumptions, scope and delimitations, limitations, and a summary will be presented.

Background

First-Generation Students

First-generation college students—herein defined as those whose parents have not attended college (Forrest Cataldi et al., 2018)—face barriers that are uncommon to their counterparts whose parents went to college (DeFreitas & Rinn, 2013; Longmire-Avital & Miller-Dyce, 2015; Tinto, 2006). Although they comprise a third of college students in the United States of America, only 56% who entered college in 2003-04 earned a bachelor's degree within 6 years compared to 63% of non-first-generation students whose parents had some college education and 74% of non-first-generation students whose parents had earned a bachelor's degree (Forrest Cataldi et al., 2018). First-generation students complete fewer courses overall resulting in fewer credit hours earned, earn lower grades, and are more likely to withdraw or repeat courses they attempt (Chen & Carroll, 2005; DeFreitas & Rinn, 2013).

African American Females

Although African American females have a higher graduation rate than African American males (Ezeala-Harrison, 2014; Garibaldi, 2014), the overall college graduation rate for African American females lags behind males and females from all other races (National Center for Education Statistics [NCES], 2017, 2019; State Council of Higher Education for Virginia [SCHEV], 2017). The college graduation rate for first-generation African American females is even lower than the graduation rate of the African American female student population, which is due to the unique personal, environmental, relational, and financial challenges they face (Bartman, 2015; Beasley, 2016; Edwards, 2014). Whether battling constant identity negotiation related to their potential for academic success as first-generation students or discrimination

resulting in feelings of institutional betrayal (Williams et al, 2020), African American first-generation females are forced to overcome barriers distinct from their continuing generation peers and peers of other races and genders. Researchers have asserted that the trajectory of degree completion for many first-generation African American females is difficult due to their triple minority status of their intersectional identities as African American, female, and first-generation (Booker, 2016; Longmire-Avital & Miller-Dyce, 2015).

Self-Efficacy

Researchers have revealed a positive association between self-efficacy and academic achievement (Alhadabi & Karpinski, 2020; Alyami et al., 2017; Talsma et al., 2018; Waseem & Asim, 2020) as well as a reciprocal relationship between the two variables (Bandura 1977, Bandura, 1997; Talsma et al., 2018). Self-efficacy has been found to affect academic achievement indirectly, only when expectations of achievement and value attributed to tasks, known as expectancy-value beliefs, were present (Domenech-Betoret et al., 2017) and when mediated by learning-related emotions and metacognitive learning strategies (Hayat et al., 2020). Other researchers, in studies largely conducted between 2007-14, have not supported a relationship between self-efficacy and academic performance (Cho & Shen, 2013; Crippen et al., 2009; Edman & Brazil, 2007; Gebka, 2014). Only one study, Talsma et al. (2019), has continued this theme of research in recent times, finding that low achievers had more self-efficacy than their academic performance indicated, while high achievers had less self-efficacy than their performance indicated. Honicke and Broadbent (2016) pointed out that there is a paucity of longitudinal studies relating to the correlation of self-efficacy and academic performance, thus warranting further research to understand the interaction between the two variables over time.

Perceived Social Support

Researchers have found that gender, parent's education level, and perceived family support predict academic achievement, mediated by pre-university grades and university adjustment (Rodriguez et al., 2017) and that different dimensions of social support predict academic success (Tinajero et al., 2020). Salami et al. (2021) investigated perceived social support as a moderator between racial microaggressions at a predominantly White institutions (PWI) and Black students' concern about future employment. Results suggested that social support buffered the effects of microaggressions for low-achieving Black students while a buffering effect was not found for high-achieving Black students who are more vulnerable to potential isolation and academic pressure (Salami et al., 2021). An inverse relationship has been found to exist between perceived social support and anxiety combined with depression among college students (Serbic et al., 2021). Kaur and Beri (2020) found that undergraduate females had higher perceptions of social support than males. Perceived social support from a significant other more closely predict academic achievement than support from friends or family (Shahed et al, 2016).

Historically Black Colleges and Universities

Historically Black Colleges and Universities (HBCUs) were founded in the late 1800s to educate African Americans during a time of legalized segregation and racial oppression in the United States of America (Allen et al., 2020). First-generation students account for the largest proportion of enrollment at public HBCUs (Cantey et al., 2013). As of 2018, there were approximately 292,000 students enrolled at HBCUs across the country (NCES, 2018). Today,

HBCUs are necessary to combat disparities in income and wealth distribution as well as racial discrimination endemic to higher education at White institutions (Bracey, 2017).

There is a dearth of research exploring the extent to which self-efficacy and perceived social support predict academic achievement among first-generation African American females at public HBCUs (Booker, 2016). The research gap addressed in this study was knowledge pertaining to the extent that self-efficacy and perceived social support predict academic achievement for this population, given the unique challenges they face, such as low perceived social support (Allen et al., 2019; Liao, 2020; Stanton et al., 2017; Watson-Singleton, 2017; Woods-Giscombe, 2010) which is a precursor for self-efficacy (Bandura, 1977, 1998). The potential for positive social change implications relate to implementation of higher education programs designed to advance self-efficacy and social support initiatives, thus empower students with improved academic achievement and program completion.

Problem Statement

The problem addressed in this study was the role self-efficacy and perceived social support play for first-generation African American females is insufficiently known. In 2014, 40.9% of first-time, full-time Black students earned a degree within 6 years compared to 63.2% first-time, full-time White students (Nichols & Evans-Bell, 2017). Although they comprise a third of college students in the United States of America, only 56% earn a bachelor's degree within 6 years, compared to 74% of non-first-generation students (Forrest Cataldi et al, 2018). Literature supports consensus that researching self-efficacy and perceived social support is relevant to facilitate academic achievement, as various student populations have been studied. Self-efficacy has been found to predict academic achievement among visually impaired students

(Shahed et al., 2016), among psychology students in Saudi Arabia (Alyami et al, 2017), among medical students (Hayat et al., 2020), as well as among college students in general (Alhadabi & Karpinski, 2020; Kaur & Beri, 2020; Talsma et al., 2018; Waseem & Asim, 2020). Research relating to perceived social support predicting academic achievement was not as plentiful as that relating to the capacity which self-efficacy predicts academic achievement. Perceived social support has been found to predict academic achievement among Spanish university students (Rodriguez et al., 2017; Tinajero et al., 2020), and among visually impaired college students (Shahed, 2016). Although there is consensus regarding the relevancy of the topic, absent from literature was research pertaining to the extent that self-efficacy and perceived social support predict academic achievement among first-generation African American females, necessary for study due to the association of Black women with perceiving low social support.

Purpose of the Study

The purpose of this quantitative study was to explore the relationship between independent variables (IV) self-efficacy and perceived social support and the dependent variable (DV) academic achievement among first-generation African American females.

Research Question and Hypotheses

This study was guided by the following research question and corresponding hypotheses:

Research Question: To what extent, if any, do self-efficacy (IV_1) and perceived social support (IV_2) predict academic achievement (DV) among first-generation, African American females?

H_0: Self-efficacy (IV_1) and perceived social support (IV_2) will not predict academic achievement (DV) among first-generation, African American females.

H_a: Self-efficacy (IV_1) and perceived social support (IV_2) will predict academic achievement (DV) among first-generation, African American females.

Theoretical Framework

Albert Bandura's (1977, 1994) research on self-efficacy and social cognition (1998) was the theoretical framework for this research. Whereas self-esteem relates to "being" or belief that one is good enough for particular situations, self-efficacy relates to "doing" or belief in one's ability to accomplish challenges. According to the self-efficacy theory (1977), self-efficacy beliefs determine how people feel, behave, and respond to challenging circumstances and self-efficacy manifests through cognitive, motivational, affective, and selective processes. A strong sense of efficacy provides an outlook of overcoming challenges as opposed to avoiding threats. As products of our environment, humans benefit when others, as well as experiences, boost our self-efficacy. Positive affirmations, feeling loved, structured environments, as well as a sense of belonging are all self-efficacy boosters. Negative or stressful environments may stunt an individual's self-efficacy (Bandura, 1994).

One's level of self-efficacy depends on her social environment, as Bandura (1998) explained with the social cognitive theory. Observational learning is the foundation of the social cognitive theory. Individuals learn from observing others and performing a behavior is not necessary to learn. Both desirable and undesirable behaviors are learned. Since learning heavily depends on one's environment and social interactions, consisting of observations and reciprocal internal and external influences, social support is a precursor to self-efficacy (Bandura, 1997; 1998). Social support by way of a responsive environment influences a high level of self-efficacy (Bandura, 1997). Social support shapes self-efficacy and self-efficacy influences one's

motivations to perform various actions and execution of those actions (Bandura, 1998), including performing at a designated academic level.

According to Bandura's (1977, 1998) self-efficacy theory and social cognitive theory, self-efficacy influences academic achievement and academic achievement influences self-efficacy. The social cognitive theory indicated that social support is a precursor to self-efficacy. Considering the complexity associated with perceptions of support for Black women and how their perception may influence their level of self-efficacy, the research question was designed with the theories in mind. The research question was designed to guide exploration of self-efficacy and perceived social support as predictors of academic achievement for first-generation, African American females. The hypothesis guiding this research is that self-efficacy and perceived social support will predict academic achievement among first-generation African American females. The self-efficacy theory and the social cognitive theory support the hypothesis. A more detailed discussion of the theoretical framework will be discussed in Chapter 2.

Nature of the Study

This study consisted of quantitative, nonexperimental, survey research. A quantitative study design has been deemed appropriate to use when exploring relationships between particular variables (Creswell & Creswell, 2018). Multiple linear regression is used to predict a dependent variable as a linear function of independent variables (Coxe et al., 2013). In this current research, self-efficacy (IV_1) and perceived social support (IV_2) were explored as predictors of academic achievement (DV) with multiple linear regression analysis. A survey

instrument was used to collect data from 68 first-generation, African American females at a public HBCU in the Southeast region of the United States.

Definitions

The following terms inform this study:

Academic achievement: the outcome of education; the extent to which a student has achieved her educational goals (Diaz-Morales et al., 2015).

First-generation student: students whose parents did not attend college (Forrest Cataldi et al., 2018).

Grade point average: the average obtained by dividing the total number of grade points earned by the total number of credits attempted (Merriam-Webster online, 2019).

Perceived social support: the expectation that support will be provided, irrespective of specific instances in which one has received support (Siedlecki et al., 2013).

Self-efficacy: An individual's belief in her ability to effectively achieve at a designated level (Bandura, 1977).

Assumptions

The responsibility of providing honest answers belonged to study respondents. The assumption was that the respondents provided truthful answers on the survey instrument. This assumption is valid to make because a letter introducing the survey and requesting participation explained that all responses would be confidential.

Scope and Delimitations

First-generation students, self-efficacy, perceived social support, and African American females are topics discussed in this research. Standing in the shadows of African American men

and White women, African American females are often marginalized (Commodore et al., 2018; Corbin et al., 2018; Haynes, 2019a; Haynes, 2019b; Jones et al., 2021; Lane, 2017). The focus on self-efficacy and the academic achievement of African American females was chosen due to recognition of the challenges that impact African American females during their journey of completing higher education degree programs along with their strength and resilience in overcoming those challenges.

In addition to focus on self-efficacy and academic achievement, focus was also on the relationship between perceived social support and self-efficacy of first-generation African American females. Self-efficacy promotes empowerment and hinders marginalization. It is a vehicle to self-actualization as well as actualization among those in decision-making roles at higher education institutions regarding methods of curtailing student attrition. Social support is a precursor to self-efficacy. A boundary of this study is the focus on students who are first-generation, female, and African American. Their triple jeopardy status is the reason why other groups were not of focus, such as African American men or first-generation students in general. First-generation, African American females are more likely to be marginalized and affected by intersectionality than other first-generation students, a difference that further highlights a need to focus on their academic achievement to facilitate completion. A delimitation of the study is inclusion of only first-generation African American female participants who attend a public HBCUs in Virginia.

The quantitative research methodology delimits this study. A mixed method design, consisting of qualitative interviews, would have afforded a statistical analysis of the study variables as well as better capture the essence of students' perception of their challenges as a

first-generation African American female and how their success may be impacted by self-efficacy and perceived support. Interviews of a mixed method study often convey information from a first-hand perspective, information which could be used to obtain resources that accommodate the needs of the population of first-generation African American females. Due to time restraints of the principal investigator, a mixed method study was not conducted.

The theoretical frameworks of this research also delimit this study by narrowing the scope of study. The self-efficacy theory by Bandura (1977) emphasizes the role of self-efficacy. The theory provides a basis for examining behaviors of first-generation students' motivation and persistence, factors that may impact or be affected by self-efficacy and academic achievement. Bandura's (1998) social cognitive theory is used to emphasize the importance of perceived social support for a population associated with perceiving low support, as explained by the strong Black woman Schema (Abrams et al., 2014; Watson & Hunter, 2016). The findings of this study may be able to be generalized to first-generation African American females who attend public HBCUs with similar student body characteristics as the research site. As a result, positive social change may result from their empowerment with implementation of programs that facilitate their education experience.

Limitations

Limitations affect the ability to generalize the findings from this study. A limitation of this study is that the participants' internalization of the strong Black woman schema (Woods-Giscombe, 2010) was not assessed. Determining whether participants internalized the schema which is known to affect perceived social support, or the extent of internalization, may have allowed in-depth analysis of perceived social support. Comparison of perceived social support

among participants who internalize the schema and those who do not internalize it may have helped to better understand the nature of perceived social support to predict academic achievement for the population of study. In an effort to make the survey instrument concise to facilitate participants' full completion, internalization of the strong Black woman schema was not addressed. This limitation could be addressed by using the Stereotypic Roles of Black Women Scale (Thomas et al., 2004) or the Giscombe Superwoman Schema Questionnaire (Woods-Giscome et al., 2019). This limitation may serve as opportunities for future research. Regarding the extent that self-efficacy and perceived social support predict academic achievement, researching various populations of students and researching students who have ceased enrollment are suggestions for future research.

Significance

The findings of this study have potential to provide insight regarding the extent that self-efficacy and perceived social support predict academic achievement among first-generation African American females, a population of students associated with perceiving minimal support yet play a pivotal role as supporters and caretakers for members of their family and community (Abrams et al., 2019; Woods-Giscombe, 2010). Research regarding the nature of self-efficacy to predict academic achievement differs, with viewpoints of self-efficacy predicting academic achievement (Talsma et al., 2018; Waseem & Asim, 2020), self-efficacy predicting academic achievement in the presence of certain variables such as expectancy-value beliefs (Domenech-Betoret et al., 2017), and self-efficacy not predicting academic achievement at all (Gebka, 2014; Talsma et al., 2019). Minimal research exists regarding the extent that perceived social support predicts academic achievement. Self-efficacy and perceived social support have been studied in

terms of many different populations but a gap in literature exists related to how the variables predict academic achievement among first-generation African American females. The significance of this study lies in the potential contributions to literature relating to self-efficacy, perceived social support, academic achievement, as well as the higher education experience of first-generation African American female students.

Results of this study may be used to assist higher education organizations in their efforts to facilitate the education experience of first-generation African American females with design and implementation of programs, practices, and pedagogy that consider their background, strengths, and needs pertaining to perceptions of support and increasing self-efficacy. This research may be used to advance practices of higher education institutions such as increasing human capital, creating mentoring programs, and fostering a sense of belonging for this student population to facilitate academic achievement. Potential implications for positive social change are that first-generation African American females and other first-generation college students are empowered with knowledge of predictors of academic achievement to facilitate program completion. Parents, college professors, and administrators may be better equipped to offer support by accommodating students' social and emotional needs and by taking self-efficacy boosting measures.

Summary

Overall, across the nation, African American females earn more degrees than their African American male counterparts, but fewer degrees than all other racial groups. Researchers assert that graduation rates for first-generation African American females are particularly low due to the unique challenges they encounter such as the lack of mentorship and guidance, family

support, and financial stability (Hobson et al., 2021; Nichols & Evans-Bell, 2017). The theoretical frameworks used to guide this research was the social cognitive theory (Bandura, 1998), which explains that a reciprocal relationship exists between self-efficacy and the self-efficacy theory (Bandura, 1977) asserting that social support is fundamental for development of self-efficacy.

Although there is a consensus in literature regarding the need to research self-efficacy and perceived social support relating to academic achievement, there is a gap in the literature that explores self-efficacy and perceived social support variables as predictors of academic achievement among first-generation African American female college students. This information is necessary to facilitate academic achievement for a population of students who are associated with perceiving low support, portray strength while concealing trauma, and feel the need to be strong to support their family and community while feeling like no one is available to offer them support. The purpose of this quantitative study was to explore self-efficacy and perceived social support as predictors of academic achievement among first-generation African American females attending a four-year institution of higher learning located in the Southeast region. In Chapter 1, an overview of the study was presented, inclusive of the background, the problem addressed, the purpose of the study, research questions and hypotheses, theoretical frameworks that guided the study, the nature of the study, definitions, assumptions, scope and delimitations, limitations, and significance of the study. In Chapter 2, literature pertaining to academic achievement among first-generation African American females will be presented.

Chapter 2: Literature Review

The purpose of this study was to explore self-efficacy and perceived social support as predictors of academic achievement for first-generation African American females at a public HBCU in the Southeast region of the United States of America. As discussed in Chapter 1, an overview of literature reflects consensus of the importance of self-efficacy and perceived social support as the variables relate to academic achievement for many populations as subjects of study, yet there is very limited research regarding self-efficacy and perceived social support as predictors of academic achievement among first-generation African American females. Socialized by media, family, and community to present an image of strength and feeling an obligation to suppress emotions while often concealing trauma, Black women are at risk for perceiving low social support when the strong Black woman schema is internalized (Allen et al., 2019; Corbin et al., 2018; Liao et al., 2020; Stanton et al., 2017; Watson-Singleton, 2017; Woods-Giscombe, 2010). Perceptions of low support may lead to stress, anxiety, depression, feelings of isolation, and little to no emotional capacity to offer social support to other Black women (Allen et al., 2019, Jones et al., 2021a; Liao et al., 2020; Stewart, 2019). According to Bandura, 1998, social support is a precursor to self-efficacy. Presented in Chapter 2 will be the literature search strategy, the theoretical foundation, the conceptual framework, as well as a review of literature.

Literature Search Strategy

The synthesis of the literature is based on research studies from peer-reviewed journal articles, books, and websites from reputable agencies such as the NCES and SCHEV. To find

literature that was relevant to self-efficacy, perceived social support, and academic achievement among first generation African American females, several databases were used including Sage, ProQuest Central, EBSCOHost, and ERIC. The scope of literature review mainly consisted of a five-year period. Search engines used were Microsoft Edge and Google Chrome. Information on self-efficacy and perceived social support as predictors of academic achievement relating to African American females was scarce. Key words and phrases were used to conduct the literature review. The key words and phrases included first-generation college students, first-generation African American female college students, the strong Black woman, African American females, perceived social support, perceptions of support, Academic Self-Efficacy Scale, self-efficacy theory, social cognitive theory, strong Black woman schema, Multidimensional Scale of Perceived Social Support, self-efficacy, academic self-efficacy, academic performance, and academic achievement. Literature extending to 2021 was reviewed.

An exhaustive literature review resulted in discussion of several topics which are organized and presented accordingly. Theoretical frameworks that served as the basis of the study will be presented. The theoretical frameworks are Bandura's (1977) self-efficacy theory and Bandura's (1998) social cognitive theory. Next, literature on African American women and the image of the strong Black woman is presented, followed by literature regarding first-generation college students. Self-efficacy is the focus of the next section of the literature review. Information about mediation studies by Elias and Loomis (2002) and Domenech-Betoret et al. (2017) that relate to self-efficacy and academic achievement is the focus of the last section. The literature review ends with a summary.

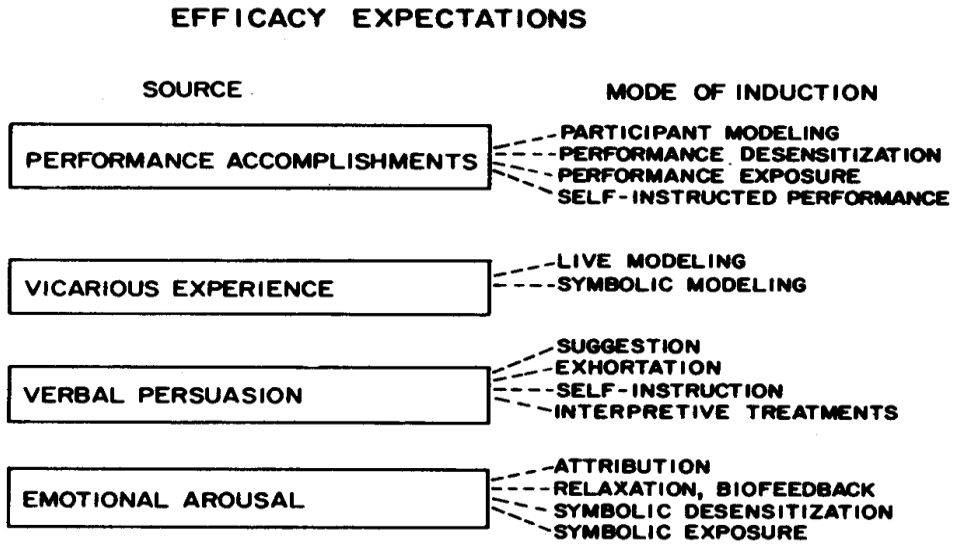
Theoretical Foundation

Bandura's (1977) self-efficacy theory and his (1998) social cognitive theory served as the theoretical frameworks for this study. The self-efficacy theory was premised on social-cognitive experiments and case studies and posits that individuals' belief about their own capabilities or perceived self-efficacy influence their learning. The social cognitive theory is based on the concept of self-efficacy and is used to explain that there is a reciprocal relationship between individuals' beliefs about their capabilities, their environment, and their behavior. With the theories, Bandura contributed to understanding factors that motivate behavioral change.

Using studies to observe the effects of cognition on behavior, Bandura (1977) ordered behavioral tasks according to their level of difficulty and assessed degree of perseverance according to the number of tasks completed. Subjects persisted in their efforts to complete the tasks until all tasks were completed or until they quit at varying points along the way. While completing the tasks, perceived self-efficacy proved to be a better predictor of behavior toward unfamiliar threatening tasks than did past performance. Individuals process efficacy information differently. This accounts for people developing different expectations from similar enactive mastery and fear extinction. Psychological procedures, whatever their form, serve as a means of creating and strengthening expectations of personal efficacy. Figure 1 illustrates Bandura's efficacy expectations, methods of influencing efficacy and how those methods are instilled.

Figure 1

Bandura's Efficacy Expectations



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Performance accomplishments, or mastery experiences (Bandura, 1994), are the most effective methods of creating a strong sense of efficacy. "Performances build a robust belief in one's personal efficacy. Failures undermine it, especially if failures occur before a sense of efficacy is firmly established" (Bandura, 1994, p. 2). Vicarious experiences provided by social models afford the opportunity to observe others similar to oneself. For example, if a college student's social surroundings consist of relatives who have graduated from college, the student is more likely to believe that college is a personal attainable goal. Similarly, observing the failures of others may foster self-doubt. The use of verbal, or social, persuasion to influence efficacy can be beneficial or staggering. Positive persuasion enhances efficacy while negative persuasion may

plant seeds of doubt, thus demean efficacy. Finally, emotional arousal affects efficacy. Feelings of stress, gloom, or defeat diminishes efficacy while uplifted spirits, positive moods, and hope enhance efficacy (Icekson et al., 2021).

To summarize the self-efficacy theory, individuals collect information regarding their capabilities from various sources. They interpret the information, blend the information, and form their own opinion about their capabilities. Individuals put forth effort to complete certain tasks, such as finishing a course with a grade of A or B, and unconsciously perform based on their beliefs about their capabilities.

With the social cognitive theory, Bandura (1998) explained that humans have limited ability to control their lives because human functioning, including the acquisition of knowledge and understanding, is shaped by observed learning from social interactions and outside media influences. Although modeling is the heart of observational learning, individuals add and subtract from observed behavior depending on the social interactions and outside influences that have had the greatest impact on their functioning. Social environments may produce positive or negative effects on functioning. Positive effects of a social environment, consisting of social support, are more likely to lead to increased self-efficacy and high self-esteem. Negative effects are more likely to have the opposite effect. For example, individuals who become accustomed to an environment in which they are socially persuaded to try new endeavors and are made to believe that they can achieve anything would more than likely have a higher level of self-efficacy than individuals who have been reared in a non-supportive environment in which they were neglected or devalued. Regarding vicarious experiences, if individuals observe their peers or other social models accomplish a task, they may feel as if they can accomplish the task also,

heightening their sense of self-efficacy. One's level of self-efficacy depends on the sources of information that individual receives and the way the information is received, whether positive or negative. Bandura (1997; 1998) discussed developing self-efficacy by mastery experiences, social modeling, social persuasion, and states of physiology. Social modeling involves observing a role model while social persuasion involves having others directly influence one's self-efficacy and facilitating mastery experiences in a safe manner. Bandura (1998, p. 5) stated, "Perceived self-efficacy and social support strengthen each other bidirectionally. Perceived social efficacy builds supportive relationships and social support enhances personal efficacy," supporting the contention that social support is necessary to build self-efficacy.

Bandura's (1977, 1994, 1997, 1998) research has contributed to this study by detailing influences of self-efficacy and how those influences are inducted. Exhibiting that a relationship exists between self-efficacy and behavior through use of case studies, Bandura extended his inquiry with the social cognitive theory. The ability to acquire knowledge and understanding through thought, experience, and the senses is the essence of cognition and self-efficacy facilitates cognition. Supported by the social cognitive theory is the belief that observational learning, modeling, and the influence of self-efficacy affect behavior production (Bandura, 1998). One's level of self-efficacy dictates what useful information is taken away from observing others, the decision to model others, or whether an individual will reproduce an observed behavior. Furthermore, individuals' level of self-efficacy determines the extent of influence other individuals will have on their environment or the extent to which they will be influenced by their own environment (Bandura, 1998).

Bandura (1977, 1998) has exemplified that self-efficacy and social cognition are influences of behavioral change. In reviewing literature for this current study, the overwhelming majority of studies align with Bandura's findings. Perceptions of the quality of social interactions affect risk factors such as smoking and drug use (Uchino et al., 2018). Social support protects against damaging amounts of stress (Janicki Deverts et al., 2017) and impacts self-efficacy (Chen et al., 2020). Social interactions stimulate cognitive processes (Newen et al., 2018; Parada & Rossi, 2018) and interactions as a dimension of social support enhance cognition (Heyes, 2020). These studies continue Bandura's theme that individuals are shaped by relationships and their surroundings.

Literature Review of Key Variables

African American Women and the Strong Black Woman Schema

The plight of African American female students as they navigate systematic policies and practices is emphasized in literature (Hobson et al., 2021; Linder et al., 2019; Stewart, 2019). Black women's typical perception of low social support is emphasized in literature in terms of internalization of the strong Black woman schema (Allen et al., 2019; Stanton et al., 2017; Woods-Giscombe et al., 2019). Awareness of issues faced by African American female students combined with their tendency to perceive low social support when the schema is internalized may help to provide insight as to whether perceived social support and self-efficacy are predictors of academic achievement for this population of students.

Often marginalized (Haynes, 2019a; Haynes, 2019b; Lane, 2017; Patton et al., 2017), African American women experience negative nonverbal, verbal, and behavioral racial and gender slights, which significantly predict mental and physical health outcomes and are mediated

by disengagement coping (Lewis et al., 2017; Salami et al., 2021). African American females' experiences in higher education may be distinctively racialized and gendered (Allen et al., 2019; Corbin et al., 2018; Jones, Hill-Jarrett, Latimer, Reynolds, Garrett, Harris, Joseph & Jones, 2021; Jones, Leath, Settles, Doty, & Connor, 2021; Thomas, 2017) but with more focus on African American men and White women, there is decreased insight regarding their higher education experience. Their systemic invisibility leads to loneliness, which is associated with anxiety and depression and has been found to be significantly stronger for African American women than men (Chang, 2018). African American women struggle to be visible and have their voices heard, especially in predominantly White institutions of higher learning (Haynes, 2019a; Haynes, 2019b, Patton et al., 2017).

The marginalization which Black women experience due to their race, gender, and class, or the interconnectedness of all three social categorizations is known as intersectionality (House et al., 2019; Jones, Hill-Jarrett, Latimer, Reynolds, Garrett, Harris, Joseph & Jones, 2021; Jones, Leath, Settles, Doty, & Connor, 2021; Lewis et al., 2017; Wairimu Mwangi & Constance-Huggins, 2019). Embedded in intersectionality is the belief that an inequitable understanding of success is predetermined, informed by White, male, middle-class standards, and dictates institutional and organizational policies and practices (Porter and Byrd, 2021). By challenging the status quo, attempting to prove their worth, and internalizing a self-assured, strong, and unruffled image, African American women are further marginalized (Porter and Byrd, 2021; West et al., 2016). The internalized image of strength transforms into perfectionism, pressure, and stress that gnaws at self-efficacy (Liao et al., 2020). For some Black women, the internalized image of strength builds self-efficacy (Liao et al., 2020), which is often used as a coping

mechanism to persist in their endeavors, including the pursuit of higher education (Corbin et al., 2019).

Elements that comprise the cultural background of African American women and which have shaped their individuality are often overlooked at higher education institutions (Jones & Reddick, 2017; Williams et al., 2020). Challenges are often the focus of research pertaining to these women as opposed to their lived experiences which could be used to foster growth and to advance academic disciplines (Ives & Castillo-Montoya, 2020). Feeling the need to negotiate their identity in the context of norms, rules, and expectations of higher education institutions that are not always receptive to their individual differences (Haynes, 2019a; Haynes, 2019b; Leath et al., 2022; Williams et al., 2020), African American female students have adopted an identifying characteristic: the image of the strong Black woman (Allen et al., 2019, Williams et al., 2020).

The strong Black woman schema is a developing framework used to describe how the pressure placed on Black women results in perceived roles, responsibilities, and experiences of oppression (Abrams et al., 2019; Allen et al., 2019; Watson & Hunter, 2016; Woods-Giscombe et al., 2019). Resilient, persistent, self-reliant (Watson-Singleton, 2017), self-sacrificing, independent, and caring (Abrams et al., 2019) are only some traits that have been linked to African American women as described by the strong Black woman schema. The traits act “as a sort of armor against a society in which Black people have been historically mistreated and where racism is expected as a matter of course” (Settles et al., 2008, p. 465) and counter stereotypic views of Black women as Welfare Queens, Mammies, and uneducated (West et al., 2016).

Described as functional, the schema functions as a psychological coping mechanism to facilitate resilience and self-efficacy in the face of hardship for African American women (Abrams et al., 2019; Watson & Hunter, 2016). The strong Black woman schema has been associated with inner strength that arise from challenges, strength that may heighten self-efficacy (Watson & Hunter, 2016) and has allowed women to survive and even thrive under conditions of racial and gender discrimination (Abrams et al., 2019). However, viewing oneself as having to be consistently strong across many domains and situations is accompanied by several implications, such as being less likely to view marriage or a stable partnership as essential or attainable, enduring stress that may negatively impact health (Abrams et al., 2019), as well as belief that there is no one to offer support to the supporter or matriarch (Watson & Hunter, 2016). Internalizing the strong Black woman schema has been linked to heightened anxiety and depression as well as unfavorable outlooks toward seeking psychological help (Liao et al., 2020; Watson-Singleton, 2017; Watson-Singleton et al., 2017; Woods-Giscombé et al., 2019). Psychological distress is overlooked by others because it is masked by an exhibition of strength (Abrams et al., 2019). Women self-silence themselves, which manifests in behaviors such as not telling others how they feel or what they want, presenting a submissive role despite feeling anger or resentment, putting the needs of other ahead of their own, and evaluating themselves based on cultural standards (Abrams et al., 2019). Isolation often results, leaving women with little or no capacity to offer support to others, including other Black women, further facilitating the perception of low social support among Black women (Jones et al., 2021). Furthermore, social media has been shown to intensify internalization of the schema and intensify mental health symptoms. Despite its usefulness for community activism and positive hashtags (Olson, 2016), it

serves as a platform for women to uphold the superwoman image, contributing more to depression and anxiety (Stanton et al., 2017).

The strong Black woman is strong because she feels she must be strong and such perception often inhibits feeling supported and even adds to societal challenges she already endures (Abrams et al., 2019; Corbin et al., 2018; Watson & Hunter, 2016; Watson-Singleton, 2017). Black women conceptualize the strong Black woman schema through independence, traits such as hardworking, friends and family caretakers, emotionally contained, high achieving, among other traits (Allen et al., 2019; Nelson et al., 2016). Due to the varying perspectives of how challenges and adversity affect both the self-efficacy of African American females as well as their perceived social support, studying perceived social support and self-efficacy in relation to academic achievement among first-generation African American females was necessary.

Historically Black Colleges and Universities (HBCUs)

Responding to the need to educate African Americans after the Civil War, HBCUs were founded. The effects of racism in the United States of America consisted of legitimized enslavement of Black people and illegal attainment of education for the Black population (Allen et al., 2020; Williams et al., 2019). When education for the Black population was legalized after the American Civil War, segregation practices facilitated inequities in education attainment that disadvantaged the Black population (Bracey, 2017). African Americans were not allowed to attend higher education institutions on land provided by the federal government strictly for the purpose of establishing higher education institutions. Funding provided for the purpose of establishing a separate system of higher education for African Americans, known today as public land grant HBCUs, was used for development of the colleges attended mostly by White elites

(Allen et al., 2020; Bracey, 2017). Funding inequities between HBCUs and PWIs, rooted in various forms of discrimination, have lasting effects and still create ruinous consequences today such as marginalization and difficulty obtaining employment. Dismantling these inequities are necessary to keep the institutions in operation to continue their role in empowering African Americans and other races of students who attend.

HBCUs promote positive social change by empowering and developing the Black community. HBCU enrollment continues to increase while enrollment at other universities fluctuates (Abour, 2019), possibly because HBCUs facilitate interaction with same-race faculty that are afforded to White students attending PWIs (Field, 2017; Koch & Zahedi, 2019). Such anopportunity allows Black students equal opportunity for mentoring and advising from others who understand their culture or who may have even shared similar background experiences (Field, 2017; Koch & Zahedi, 2019). African American students at HBCUs may be more receptive to efforts to cultivate a strong sense of community among first-year students because of the faculty and staff's heightened sensitivity to incoming students' cultures of origin (Shappie & Debb, 2017). HBCUs are better equipped to facilitate feelings of self-efficacy because students are not afraid to ask for help from faculty or peers (Shappie & Debb, 2017). Black students may feel validated by attending HBCUs since the institutions represent a response to social and economic oppression that influenced their decision to attend in the first place (Bracey, 2017) and overall, Black students progress better at HBCUs from an academic, social, and emotional standpoint (White-Cummings, 2017). As more Black students are seeking cultural enrichment, sense of community, and academic support, enrollment in HBCUs increase (Nichols & Evans-Bell, 2017). However, HBCUs are not without problems.

From a behavioral health perspective, HBCU students are faced with challenges similar and unsimilar to those faced by students attending PWIs. Stress has been shown to negatively affect students' interconnectedness, particularly true regarding stress from non-college attending peers which leads to increased conflicts with their partners, decreased connection to family, as well as lowered conflict resolution (Ford et al., 2017). Fifty-two percent of HBCU students meet criteria for mild to severe depression (Rahman et al., 2019). Researching freshman status and depression at HBCUs, Jin et al. (2019) found a negative correlation between internet addiction and resilience with results supporting younger students are more prone to internet addiction. Relating to violence at HBCUs within a behavioral health context, research of Britto et al. (2018) support Black female students at HBCUs fearing murder, rape, school shooting, mugging, and assault at significantly higher levels than Black male students. Researching Black students attending either a PWI or HBCU, Mushonga and Henneberger (2020) found no statistically significant difference concerning students' mental, social, and emotional wellbeing. Further research is necessary to determine whether the social and academic environment fostered at HBCUs protects students' mental health (White-Cummings, 2017; Rahman et al., 2019).

In 2018, HBCUs conferred 74% of degrees to Black students (NCES, 2019). Of those degrees awarded, the majority were awarded to African American women. Yet, this population of students, overall, has a difficult trajectory to degree completion due to adversities associated with being African American and female and often a first-generation student. As a result, overall, fewer Black women graduate within 6 years compared to men and women of other races (NCES, 2017; SCHEV, 2017).

Nichols and Evans-Bell (2017) discussed the gap in graduation rates between Black students and White students by researching undergraduate students at the 676 traditional public and private non-profit colleges and universities within the United States. HBCUs and special schools were not included in the research. For Black students, the graduation rate within a 6-year period was 45.4% compared to a graduation rate of 64.7% for White students. Lack of Black faculty at the institutions, placement into remedial courses, and campus climate attributed to the time Black students take to graduate. When comparing HBCUs to non-HBCUs, analysis showed that HBCUs have better completion rates for Black students than non-HBCUs, 37.8% average institutional graduation rate compared to 32%. Similar colleges serving similar student populations can produce different outcomes which are not always due to the academic preparation students receive before enrolling into college (Nichols & Evans-Bell, 2017).

The college experience for African American students at PWIs sometimes consist of a hostile, racist campus climate that affects graduation rate (Nichols & Evans-Bell). The higher graduation rates at HBCUs compared to PWIs may be attributed to campus racial tension at PWIs, which has shown to be a significant predictor of stress for African American women (Shahid et al., 2017). Thompson et al. (2019) found that ongoing race-based rejection experienced while attending PWI's may be a reason why students of color feel more comfortable at minority serving institutions.

First-Generation Students

Various definitions of first-generation students were found in literature. Definitions include students whose parents did not attend college (Forrest Cataldi et al., 2018; Costello et al., 2018), students with neither parent having a four-year degree (Tibbetts et al., 2018), as well as

those in the first-generation in their family to attend school (Metcalf & Wiener, 2018). Toutkoushian et al. (2018) found that the percentage of first-generation college students in a longitudinal study sample varied from 22% to 77% based on definitions and asserted that the inconsistency in defining a first-generation college student complicates comparing results across studies. For this research, the definition of first-generation students is students whose parents did not attend college. Due to parents' lack of experience at postsecondary institutions and often low-income status, first-generation college students often lack guidance as well as certain types of support, such as informational and financial, from their parents as they seek admissions into colleges and universities and as they work towards degree completion (Williams et al., 2020). Family support is sometimes in the form of emotional support, such as listening, advising, or encouraging and is critical to success (Hamilton et al., 2018; Roksa & Kinsley, 2019). First-generation students' perception of family support can serve as a motivating factor or as a stress factor (Quinn et al., 2019).

Familial pride is also viewed as a requisite to success for first generation students (Quinn et al., 2019). Parents and siblings are not the only sources of support. Extended and chosen family often play a role in financial and emotional support (Capannola & Johnson, 2020). Feeling obligated to help family, which impacts academic expectations, is common among this population of students and the need to find work opportunities to honor family commitments, to be interdependent and independent, depending on one's culture, is often overlooked when academic programs are implemented (Covarrubias et al., 2019). Family members often lack understanding of the demands of pursuing a college degree (Quinn et al., 2019). For this reason, first-generation students often report family stress, putting them at-risk for mental health

problems (House et al., 2020). These students feel guilt associated with having more educational success than family members, known as family achievement guilt (Covarrubias et al., 2019; Ives & Castillo-Montoya, 2020), which adds more stress to their collegiate experience.

Research supports that students' background, consisting in part of emphasis placed on the importance of education, racial/ethnic identity, family income, and parental education, plays an integral part in shaping their higher education experience (Britt et al., 2017). When compared to their non-first-generation peers, first-generation students are more likely to be nonnative English speakers and have historically marginalized racial and ethnic identities in higher education (Ives & Castillo-Montoya, 2020). Although first-generation college students experience the same challenges as their peers, they face unique challenges such as difficult cultural transitions, significantly more work hours, academic distress, and lack of academic preparation, putting them at-risk for mental health problems (Sharp & Theiler, 2018), lower retention rates, and increased graduation rates (House et al., 2020). Low-income status (Ives & Castillo-Montoya, 2020; McCallen & Johnson, 2020) and Pell grant recipients (Nichols & Evans-Bell, 2017) are often markers used to classify first-generation students. Studies have shown that even after graduating college, these students are not employed as frequently and make less money than non-first-generation students (Witteveen & Attewell, 2017; Zhou, 2019), even ten years after graduating (Manzoni & Streib, 2019).

First-generation students face challenges that are specifically related to the inadequate financial aid and guidance towards their education completion process (House et al., 2020). Regarding first-generation African American students, several other factors have been shown to impact their higher education experience, such as intersecting oppressions that impact their

identity development (Smith et al., 2019; Williams et al., 2020) as well as expectations of failure from members of their community, which has also been found to be a motivating factor to persist (Liversage et al., 2018). First-generation student status has been described as a social identity shaped by the critical transition period of college (Azmitia et al., 2018), much like the social identity of African American and female. Such identities influence sense of belonging on campus and persistence toward degree completion (Azmitia et al., 2018; Smith et al., 2019; Williams et al., 2020). A strong internal locus of control, meaningful relationships, mentoring, interactions with faculty, and a strong sense of family obligation were found to facilitate the education experience for this class of students (House et al., 2020; McCallen & Johnson, 2020; Nichols & Evans-Bell, 2017).

First-generation students have reported low academic self-efficacy (Metcalf & Weiner, 2018). Academic achievement among this population of students may be enhanced by social support in the form of family and friend support. Family support, inclusive of parental support, heightens emotional adjustment while friend support stimulates social adjustment (Lasarte et al., 2020), social and personal-emotional adjustment (Rodriguez et al., 2017), and influences student's mastery goal orientation and intrinsic motivation (Wu, 2019). Support from family and friends yield performance, while peer interactions and associations influence students' cognitive development, self-confidence, and motivation (Destin et al., 2018). Students benefit socially from the natural bonding experiences that occur from peer relationships (Plaskett et al., 2018).

To facilitate receipt of social support and to curtail academic failure, mentoring may be beneficial for first-generation students. Mentoring is an approach to issues such as newfound independence, homesickness, lack of time management skills, lack of finances, inability to meet

university academic standards, and different teaching styles (Baier et al., 2016). Incoming students may benefit from mentoring by receiving help with scholarship applications, course selection, study skills development, and social connections (Plasket et al., 2018). A balance between academic and social-emotional needs combined with focus on the quality of the mentoring relationship, or relational instrumentality, positively impacts academic achievement for low-income first-generation students (Plaskett et al., 2018). Mentoring has shown to be resourceful from both a social support and academic stance.

When services are tailored to suit individuals, students are more likely to be at ease with the college process (Quinn et al., 2019). Personalized services such as tutoring, priority enrollment, mentoring, and personal support in the form of encouragement and guidance from faculty (McCallen & Johnson, 2020; Nichols & Evans-Bell, 2017) and support staff (Quinn et al., 2019) can be instrumental in helping first-generation students to manage school, work, and family responsibilities, offering an opportunity for social support. Comprising social support, social capital advances first-generation students by providing information channels, trusted relationships, and norms that, through social networks, facilitate navigation of institutions (Ashtiani et al., McCallen & Johnson, 2020; Mikiewicz, 2021). Compared to economically advantaged students, low-income students benefit more from usage of social ties which, through mentorship, facilitate college entry and bachelor's degree attainment (Ashtiani & Feliciano, 2018). Some first-generation students may already have social capital without realizing how to apply it toward their college experience to promote academic success (Armstrong, 2021). Faculty has been deemed the most significant source of social capital relating to first-generation students' perception of their college success (Armstrong, 2021; McCallen & Johnson, 2020).

First-generation students benefit from access to and use of social capital as well as personalized services that promote academic achievement.

First-generation students show resilience with a sense of self-efficacy as they endure adversities while refusing to allow their circumstances to determine their future (Alvarado et al., 2017; Azmitia et al., 2018). Finding support outside of immediate family demonstrates resilience and determination to achieve academic and career goals (Capannola & Johnson, 2020). They are often researched in terms of their unique stressors such as low-income status, lack of family support, or difficulty transitioning to college. Focus on their challenges results in a deficit-based approach to studying this population of students, neglecting opportunity for deeper understanding of their experiences which is essential to advancing diversity and equity in higher education (LeBouef & Dworkin, 2021). Emphasis on strengths as opposed to challenges may facilitate first-generation students' resilience.

Perceived Social Support

College attendance is a time of uncertainty for students and is associated with stress, loneliness, decreased sense of belonging, low adjustment, academic distress, and mental health problems such as depression and anxiety (Britt, 2017). Such issues are especially true for at-risk populations of students such as first-generation students and African American students. Perceived social support has been researched in terms of its benefits on many populations of study. Lacking in literature is how perceived social support predict academic achievement among first-generation, African American females. This topic is worthy of research due to unique challenges faced by this population of students such as association with low socio-economic backgrounds (Britt et al., 2017), difficulty completing a bachelor's degree within 6

years (Forrest Cataldi et al., 2018; House et al., 2020), and intersecting social identities which have historically been associated with oppression and marginalization (House et al., 2019; Jones et al., 2021a; Jones et al., 2021b; Lewis et al., 2017; Wairimu & Constance-Huggins, 2019).

Academic achievement consists of multiple elements aligning to influence students' expectations regarding success, such as high levels of self-efficacy, access to resources, and sensing belonging (Tinajero et al., 2020). Perceiving social support promotes alignment of the elements necessary for academic achievement. For low achieving Black students attending PWIs, perceived social support was found to mediate microaggressions and fear of future employment (Salami et al., 2021). Tinajero et al. (2020) found that satisfaction with support predicted GPA, that there is a positive association between social support and academic achievement, and that social support consisting of reassurance of worth was a significant predictor of GPA. Perceived social support promotes problem-solving skills, seeking help under adverse circumstances (Cevik & Yildiz, 2017), and sense of belong (Lau et al., 2018; Li et al., 2018).

Support from various sources and types have been found to be helpful to combat different challenges associated with academic achievement. Encouragement, emotional support during frustrating times, and praise by faculty and family all promote academic achievement (Mishra, 2020) and perceived support is more valuable than received support (Eagle et al., 2019). Perceived social support from family and friends is positively associated with academic achievement in general (Frazier et al., 2019), academic achievement for first-generation female students (Armstrong, 2021), as well as academic adjustment for first-generation students (Kamel, 2018) and plays a critical role in meeting the academic demands of higher education. Perceived

support from family was found to relate positively to career and academic goal motivation (Bagci, 2018). While Ashtiani and Feliciano (2018) hypothesized that a two-parent household would provide more social capital to help achieve goals, their research findings did not support a relationship between family structure and college enrollment or degree attainment. Perceived support from friends has been shown to significantly predict perceived campus safety, self-evaluation, and achievement safety (Yano et al., 2021). Having access to peers to describe everyday academic challenges and reasons to celebrate foster perceived peer support and as a result, predict higher academic self-efficacy (Altermatt, 2019). These findings are especially useful to facilitate success for first-generation students and ethnic minority students who tend to perceive less social support from family and friends, experience higher stress levels, and lower levels of well-being (Watson & Hunter, 2016).

Perceived social support has been associated with improving mental and physical health distress. The positive effects perceived social support has on mental health includes buffering stress which is an impediment to academic achievement (Frazier et al., 2019), buffering depression (Bukhari & Afzal, 2017; Hybels, 2016), improving quality of life (Alsubaie et al., 2019; Jordan et al., 2019), and facilitating coping when faced with challenges (Xerri et al., 2017). Higher perceived support predicted a greater likelihood of recovering from depression. Hybels et al. found that, over a three-year period, patients classified as having persistently moderate and persistently high levels of depression perceived lower levels of support compared to those patients classified as having persistently low levels of depression. Regarding students addicted to social media, Bilgin and Tas (2018) found that university students with a high level of perceived social support from family, friends, and a significant other had lower levels of

social media addiction, thus an improved quality of life. Farrell and Langrehr (2017) expressed the need for studies to research the impact of social support on the mental health of diverse ethnic college students since most studies fail to consider differences between groups.

African American females who internalize the strong Black woman schema are often givers of support rather than recipients (Watson-Singleton, 2017) and have difficulty asking for help (Liao et al., 2020; Watson-Singleton, 2017; Watson-Singleton et al., 2017; Woods-Giscombé et al., 2019). When Black women are confronted with alienation, isolation, and limited support, along with demanding expectations of higher education, finding meaningful approaches to cope and persist may be difficult, creating psychological and emotional hurdles to graduation (Shavers & Moore III, 2019). For African American first-generation students with intersecting class and social identities in addition to difficulties associated with higher education degree attainment, understanding the capacity of perceived social support to predict academic achievement may help to improve graduation rates.

Self-Efficacy

Academic success during college is marked by good grades, emotional and social well-being, ability to persist, among other factors. Research has been geared toward the role of self-efficacy as it relates to factors that facilitate academic success. When researching the effects of self-efficacy levels and mentorship on the intent to persist among college freshmen, Baier et al. (2016) found that mentoring moderates self-efficacy related persistence. Higher levels of self-efficacy were found to increase academic achievement (Alhadabi & Karpinski, 2020; Alyami et al., 2017; Nasir & Iqbal, 2019; Talsma et al., 2018; Waseem & Asim, 2020) and mediate the relationship between open-mindedness in personality and academic achievement (Bahcekapili &

Karaman, 2020). Yet, self-efficacy was found to have no significant effect on test anxiety (Ifeakor & Goodluck, 2021; Maier et al., 2021).

Modeling, a way for students to observe a skill, affects self-efficacy levels. Modeling enables students' own proficiency. The use of exemplars, or carefully selected examples of assessed assignments from previous learners, is a method of modeling which has been found to increase students' self-efficacy as they gain belief in their ability to follow suit (Hawe et al., 2017). With peer problem solving, students participate in learning rather than simply observing. Everyday interactions with peers contribute to perceived peer support, which in turn enhances academic self-efficacy beliefs (Altermatt, 2019). Active participation in learning, as Bandura (1977) supported, strengthens self-efficacy. Learners begin to analyze their own thoughts. As a result, their abilities to understand their feelings, to persevere in the face of adversity, to quickly rebound from setbacks, and to persist in their endeavors are strengthened (Bandura, 1994).

Research supports the tendency of high levels of self-efficacy to enhance the college experience. Combined with grit, self-efficacy has been found to enhance academic achievement (Alhadabi & Karpinski, 2020). Compared to students with low self-efficacy, students with higher self-efficacy have reported overall positive collegiate experience and less stress (Firth et al., 2019; Frazier et al., 2019), were found to report a higher level of satisfaction in college courses in an online learning environment (Abdous, 2019), and for first-year students, better academic adjustment (Kamel, 2018). Students with higher self-efficacy may serve as an academic resource for others while enhancing academic integration into social networks and facilitating growth mindsets, or growth of intellectual talent by exerting effort during times of difficulty (Zander et al, 2018).

Developing increased self-efficacy to counter difficulties faced as a first-year college student is a topic which Delaney et al. (2016) addressed with their research of a pre-university program. Such programs facilitate transition from high school to college by exposing the program participants to aspects of college life, such as a more challenging workload. The students can determine factors that may facilitate their college experience, such as support from family and friends and communicating with faculty, before attending college. Not only does realizing such discoveries before enrollment facilitate students' transition to college, but the realization also improves self-efficacy. Other methods of developing self-efficacy include providing mindfulness-based relaxation courses (Vidic & Cherup, 2019). Halper and Vancouver (2016) discovered that when feedback was present when researching the influence of self-efficacy on persistence on a physical task, self-efficacy had a positive influence on persistence.

Further self-efficacy development is fostered by recognizing patterns self-efficacy levels relating to various demographics. According to research aimed at understanding gender differences in early college student motivation, Casile et al. (2021) found that male students tend to be more academically self-efficacious than female students. Research of Abdous (2019) supported females being more self-efficacious and Hawa and Tilfarlioglu (2019) found no significant difference in self-efficacy among males and female students. In-depth analysis of self-efficacy pertaining to ethnic diversity may foster improved higher education experiences for at-risk populations of students such as first-generation African American females.

Self-Efficacy, Perceived Social Support, and Academic Achievement Studies Found in Review of Literature

Studies have examined the nature of perceived social support or self-efficacy to predict academic achievement for populations of study but not for first-generation African American females, a population worthy of study given the unique challenges they face. Tinajero et al. (2020) investigated perceived social support as a predictor of academic success among Spanish university students during their first and third years of college. Regression analysis of the data showed that perceived social support predicts academic achievement and different dimensions of support predict academic achievement over a 2-year period. Support via reassurance of worth significantly predicted GPA during participants' third year, while perceived global support and parental acceptance did not significantly predict achievement.

When investigating the relationship between perceived social support, self-efficacy, and academic achievement for visually impaired students, Shahed et al. (2016) conducted a correlational research design. The MSPSS was used to assess perceived social support from family, friends, and a significant other. The Generalized Self-Efficacy Scale was used to access self-efficacy. A positive relationship was found between academic performance, self-efficacy, and perceived social support for visually impaired students.

Domenech-Betoret et al. (2017) investigated the mediating role of students' expectancy-value beliefs between self-efficacy and academic achievement. Self-efficacy was assessed with the General Academic Self-Efficacy Scale (Bandura, 1990). Expectancy-value beliefs were assessed with the Expectancy-Value Scale and included subject-value, process expectancy, achievement expectancy, and cost expectancy. Achievement was also accessed by this scale.

Satisfaction of the teaching process was measured with the Satisfaction of the Teaching Process Scale. Findings revealed that expectancy-value beliefs fully mediated the relationship between the independent variable of self-efficacy and the dependent variable of academic achievement. In a second mediation analysis model, expectancy-value beliefs fully mediated the relationship between independent variable academic self-efficacy and dependent variable satisfaction of the teaching process. The direct effect of self-efficacy and achievement was found to be insignificant.

Elias and Loomis (2002) investigated the variables need for cognition and perceived self-efficacy to determine if academic achievement could be predicted among undergraduate students taking a psychology course at a university in the Rocky Mountain region of the United States. Need for Cognition was assessed with the NFC Scale (Cacioppo, Petty, & Kao, 1984). Self-efficacy was assessed with the Academic Self-efficacy Scale (ASES) (Lent, Brown, & Gore, 1997). Academic achievement was assessed by student's self-reported grade point average. A correlation analysis was conducted to determine the correlation of variables assessed with the ASES which includes physical education efficacy, milestone efficacy, and general course efficacy.

In addition to a correlation analysis, Elias and Loomis (2002) used mediation analysis to determine if need for cognition develops academic achievement, mediated by self-efficacy or if self-efficacy develops academic achievement, mediated by need for cognition. Results of the study revealed that need for cognition predicts increased academic self-efficacy, which in turn accounts for variance in academic success. Full mediation by self-efficacy in the need for cognition and academic achievement relationship was supported. Elias and Loomis also found

that need for cognition does not mediate the self-efficacy and academic achievement relationship.

Summary

A synthesis of the literature indicated that missing from literature is an examination of self-efficacy and perceived social support predicting academic achievement among first-generation, African American females. What is known regarding this topic, however, is that first-generation students face challenges that are not often faced by non-first-generation students and that their self-efficacy affects their academic achievement. While the degree completion rate among African American women is higher than that of African American males, they continue to graduate at rates that are lower than males and females of other races. Challenges associated with educating African Americans have existed since the beginning of the Civil War, when reading and writing was illegal for the race. After the Civil War, HBCUs were established to educate African American students. However, the schools were not equal in educational offerings or facilities compared to higher education institutions for White Americans.

HBCUs had academic and cultural missions of elevating African American communities through education. The institutions continue to be instrumental in equipping students with key skills in planning and leadership and helping them to understand the importance of civic engagement while instilling a sense of pride in themselves as well as their contributions to their community. While African American females who attend HBCUs graduate at higher percentages than those who graduate from PWIs, they are still faced with challenges such as lack of guidance from family, low perceived support, and intersectional identities that impede academic success. In addition, many of the students face challenges associated with being a first-generation student.

Due to barriers faced by many first-generation African American women who attend HBCUs as well as traditional higher education institutions, many do not graduate with a bachelor's degree within 6 years.

Bandura's (1977) self-efficacy theory and his (1998) social cognitive theory served as the theoretical frameworks for this study to determine whether perceived social support and self-efficacy predict academic achievement among first-generation African American females. Black women are associated with feeling obligated to be strong simply to take care of family, contribute to their community, and tackle expectations of society all while upholding an image of being mentally and physically organized. This internalized strength may heighten self-efficacy and inhibit feelings of support, as explained by the strong Black woman schema. Accordingly, the extent to which self-efficacy and perceived social support predict academic achievement among first-generation African American females is a gap in literature that will be addressed by this current study, extending knowledge in the discipline. Outlined in Chapter 3 is the research methodology used to conduct this study. The research design is presented in Chapter 3, along with the rationale for the design, and the sampling procedures. Information about the data collection procedures, the instruments used to collect data for the study, as well as the research question are also included in Chapter 3.

Chapter 3: Research Method

With this quantitative study, I sought to evaluate the capacity of self-efficacy and perceived social support to predict academic achievement among first-generation African American females attending a public four-year HBCU located in the southeast region of the United States. Given the unique challenges faced by this population of students, including perceptions of low social support, the results of this research study may be used to design measures aimed at improving academic achievement and ultimately, improving the graduation rate for this population of students. Quantitative methods were employed to analyze the research variables and will be described in Chapter 3. The research design and rationale, the target population and sampling, threats to validity, and ethical considerations will also be described in this chapter.

Research Design and Rationale

The research questions established in Chapter 1 focused on the extent self-efficacy and perceived social support predict academic achievement among first-generation African American female students at a public HBCU. The questions guided identification of the variables that were used in the study. The independent variables were self-efficacy and perceived social support, while the dependent variable was academic achievement.

A quantitative correlational research design was most suitable to quantify the information obtained based on the guiding research questions and to objectively collect data. Other methodologies were considered for research design. A mixed method design, consisting of qualitative interviews, would afford a first-hand account of students' perception of their challenges as a first-generation African American female as well as afford a quantitative analysis

of the study. However, a qualitative approach was not suitable because multiple forms of data, such as interviews, documents, observations, and audiovisual information, are typically gathered during qualitative research (Creswell & Creswell, 2018), and were not gathered during this study to promote collection of succinct, unbiased data.

A survey instrument was used to collect data. The survey given to the subjects consisted of a demographic section and two assessment scales, the ASES and the MSPSS. Although a quantitative approach was used, an experimental design was not considered because there was not a suitable treatment given to the research subjects to determine whether self-efficacy or perceived social support predicts academic achievement.

Methodology

Population

The population of interest in this study was first-generation, African American females at a public HBCU in the southeast region of the United States, known as the research site. The target population is first-generation, African American females at public HBCUs with similar student body characteristics as the research site. Once approval was obtained from the research site's IRB, a representative from the Department of Psychology facilitated survey distribution via Blackboard to undergraduate students taking Psychology courses. For the Fall 2018 semester, 911 African American females seeking a four- year bachelor's degree comprised 23% of the Fall head count of 3934 undergraduates enrolled (SCHEV, 2020). The population of interest was considered large enough to obtain the minimum sample size of 68.

Sampling and Sampling Procedures

A power analysis was used to determine the sample size necessary to get significant results from the survey. Using G*Power 3.1.9.4 statistical power analysis program, an a-priori statistical power analysis was conducted to determine the minimum sample size necessary to obtain significant results from the study. Based on a medium average effect size of .15 for multiple regression analysis (Cohen, 1988), a f^2 value of .15 was input to calculate effect size. The calculated effect size of .15, a standard alpha level of .05, a power of .80 for a chance of detecting significance if an effect exists (Pallant, 2013), and a value of 2 for the predictors of perceived social support and self-efficacy were input. A sample size of 68 was required to have an 80% chance of detecting an effect if an effect exists. Every attempt to collect more than 68 responses was made to strengthen the chance of detecting an effect.

A convenience sample was employed for this study due to the requirement from the research site that data collection be administered by a site sponsor. To facilitate data collection, the survey was offered to all who were willing to participate. The survey was designed to cut off if participants did not fit the inclusion criteria.

Procedures for Recruitment, Participation, and Data Collection

A representative from the research site's Department of Psychology posted a recruitment invitation in Blackboard. The invitation explained that the study would investigate the relationship between self-efficacy, academic performance, and perceived social support. It explained that survey responses would contribute to understanding student performance and creating future programs aimed at facilitating the collegiate experience for first-generation, African American females. Voluntary participation in the survey as well as the confidential

nature of the collected data was discussed. To consent to the study, which was explained in the recruitment invitation (see Appendix A) and consent form, as well as to complete the web-based survey through Survey Monkey, volunteers clicked on links posted in their Blackboard course.

Survey participants exited the survey with contact information for the principal investigator in case questions or concerns arose. The final research report will be shared with survey respondents upon request, providing those participants contact the researcher and provide their email address to receive the report. Study findings will be provided to officials of the research site.

Fink (2015) discussed the advantages and disadvantages of sending a survey via email, or web survey. Web surveys may be programmed in such a way to ask certain questions to certain respondents, saving the researcher from providing complex instructions. With web surveys, real-time data is created as respondents complete the questionnaire, facilitating quick results. A possible disadvantage may be that some electronic devices are not amenable to answering most surveys. Trust is also a factor when sending web surveys. Recipients may question the legitimacy of the survey. Furthermore, fear of viruses and harvesting of addresses may hinder responses. To prevent such fears, the invitation containing the survey link was posted in Blackboard by a representative from the research site's Department of Psychology, as opposed to the principal investigator. Fink outlines initial contact elements and follow-up protocols that were followed for the present study. The initial contact elements consisted of informing of the survey's purpose, goals and objectives as well as explained the research as it relates to self-efficacy and academic performance. Follow-up plans consisted of reminding survey recipients about intentions and

informing of any changes in the survey implementation procedures. I was available by personal email to address questions or concerns regarding the survey.

The survey was available for two 1-week intervals. These periods of time included checks to determine if new surveys had been received. Pre-formatted data was exported from Survey Monkey into Statistical Package for the Social Sciences (SPSS), Version 27.0.

Instrumentation and Operationalization of Constructs

Self-efficacy and perceived social support were the independent variables in the research question for this study. The ASES (Elias & Loomis, 2002) was the instrument used to collect data on self-efficacy. The MSPSS (Zimet et al., 1988) was the instrument used to collect data on perceived social support. Academic achievement was the dependent variable in the research question. Self-reported grade point average (GPA) as a measure of academic achievement was utilized to measure the dependent variable. Researchers supports the contention that self-reported GPA may be as accurate as actual grade point average (Kuncel et al., 2005; Sticca et al., 2017) and is preferred over school-reported grades due to research efficiency (Sticca et al., 2017). The combined survey instrument for this current study (see Appendix B) consisted of the ASES, the MSPSS, as well as a demographic section.

The sections of the survey instrument for this study were:

1. Explanation, inclusive of the purpose of the study,
2. Background, inclusive of demographic questions and self-reported grade point average, and
3. Self-Efficacy Measure
4. Perceived Support Measure

Explanation Section

The explanation section, included in the demographic background section, consisted of the purpose of the survey and what it purports to measure. The section contained an explanation of how the survey responses will contribute to understanding student performance and creating future programs aimed at facilitating the collegiate experience of first-generation, African American females. This section was also used to suggest the amount of time the survey should take to complete and thanked the participants for their time.

Demographic Background Section

Included in the background section was a questionnaire (see Appendix C) which I created to collect demographic information (Table 1). This information was necessary to ascertain the first-generation status of the respondent as well as to explore the variable of academic achievement. The item pertaining to academic achievement, operationalized as grade point average (GPA), was written as, "What is your GPA?" Options consisted of the interval values from below 2.0 to above 4.0.

Table 1

Background Section of Survey Used to Assess Demographic Variables

Variable	Type of Measure
Identification to Population	2 choices, nominal
Years of College Attendance	Fill-in, interval
Sibling College Attendance	2 choices, nominal
Self-reported GPA	Fill-in, interval

Self-Efficacy Measure

To collect data about self-efficacy, the ASES (Elias & Loomis, 2002) was used to address participants' perceptions of their confidence pertaining to completing courses in three categories with a grade of "B" (see Appendix D). The scale assessed self-efficacy in general course efficacy, physical education efficacy, and milestone efficacy. Elias and Loomis contend that the criterion of earning a "B" was included to reduce the risk of inflated responses. Confidence was rated via a 10-point Likert scale. The scale ranged from "No confidence at all" with a rating of 0, to "Complete confidence" with a rating of 9. General course efficacy included biology, chemistry, and mathematics. Physical education efficacy included dance, weight training, and swimming. Milestone efficacy inquired about reaching milestones such as "earning a cumulative grade point average of 3.0 after three years of study" (Elias & Loomis, 2002).

Elias and Loomis (2002) discussed the validity of the Academic Self-efficacy Scale. An unrotated, independent principal components analysis was conducted on the ASES course items (general and physical education), resulting in extraction of two factors. A second unrotated, independent principal components analysis was conducted on the milestones component of the scale, resulting in extraction of one factor. The general courses factor accounted for 41.82% of the variance in course items, physical education courses factor accounted for 13.65% of the variance in course items, for a total of 55.47% of the variance being explained. The single milestone factor explained 55.48% of the variance in milestone items. Preliminary correlation analyses supported that all three academic self-efficacy factors were positively correlated, with coefficients ranging from .39 to .66. Based on validity, the Academic Self-Efficacy Scale was sufficient to use for this current study.

Internal reliability refers to how well a scale consistently measures what it is intended to measure (Creswell & Creswell, 2018; Pallant, 2013). An acceptable value for Cronbach's alpha is .7 (Nunnally, 1978) but should not exceed .9 because a value above .9 may indicate redundancy within the instrument (Tavakol & Dennick, 2011). In the self-efficacy study conducted by Elias and Loomis (2002), the arithmetic average of the three subscales was obtained for an overall self-efficacy score. The coefficient alphas were .94 for general courses, .86 for physical education courses, and .94 for academic milestone efficacy. The average of those coefficient alphas was .91. For the research of Elias and Loomis (2000), the Cronbach coefficient alphas of the 3 scales averaged .90. For the research of Elias and MacDonald (2007), the average of the coefficient alphas for all 3 scales was .86. The full-scale ASES will be used to assess overall self-efficacy in this current research study. Obtaining permission from Elias to use the ASES was obtained and granted but not necessary because it is published in the public domain.

Perceived Social Support Measure

The MSPSS (Zimet et al., 1988) was designed to measure perceived social support using a 7 point Likert scale (see Appendix E). The scale, consisting of 12 items, included three subscales that measure family support (4 items), support from friends (4 items), and support from a significant other (4 items). Each item contains 7 potential responses ranging from "very strongly disagree" with a rating of 1 to "very strongly agree" with a rating of 7. Regarding the family support, friends support, and significant other support subscales, items included, "My family really tries to help me," "I can talk about my problems with my friends," and "There is a special person who is around when I am in need" for the subscales, respectively. The full-scale

MSPSS, as opposed to subscales, was used to assess perceived social support as a predictor variable for this current research study.

Zimet et al. (1988) administered the MSPSS, along with a scale to assess the degree to which symptoms are associated with various mental health problems, to 275 undergraduates enrolled in a psychology course. Anxiety and depression were the mental health problems specifically investigated due to the consistent finding by prior researchers of the strong inverse relationship between social support and depression and anxiety. The whole scale was minimally but significantly negatively related to depression, $r = .13$, $p < .05$.

The full-scale MSPSS (Zimet et al., 1988) has been reported to have coefficient alphas of .88 and .85 for the test-retest reliability 3 months after it was first administered. A study designed to determine the psychometric characteristics of the MSPSS found full-scale alpha coefficients of .92, .84, and .90 when assessing perceived social support among 3 different sample groups (Zimet et al., 1990). The full-scale MSPSS was utilized and had a Cronbach alpha coefficient of .92 in a study that analyzed the mediating effect of perceived social support on shyness and loneliness (Zhao et al., 2018) and .91 in a study which confirmed the psychometric characteristics with a diverse group of students from an urban college (Dahlem et al., 1991). Therefore, for this current study, the MSPSS was sufficient to measure perceived social support. Obtaining permission from Zimet et al. (1988) to use the MSPSS was not necessary because it is published in the public domain.

Data Analysis

The research question and hypotheses for this study are as follows:

Research Question: To what extent, if any, do self-efficacy (IV_1) and perceived social support (IV_2) predict academic achievement (DV) among first-generation, African American females?

H_0: Self-efficacy (IV_1) and perceived social support (IV_2) will not predict academic achievement (DV) among first-generation, African American females.

H_a: Self-efficacy (IV_1) and perceived social support (IV_2) will predict academic achievement (DV) among first-generation, African American females.

The study hypotheses were tested using a multiple regression analysis. This type of analysis is sufficient to use when determining the predictive ability of more than one independent (X) or predictor variable on one dependent (Y) or outcome variable (Pallant, 2013). For this study, multiple regression helped to determine whether the amount of variance in academic achievement was explained by self-efficacy and perceived social support.

A visual assessment of data determined if participants needed to be removed or replaced. Data of participants providing a response of "No" to the question, "Do you identify as a first-generation African American female student?" was not collected. There was only one missing datum. I input 99 as a discrete missing value in SPSS so that during analysis, the missing value would be treated as one that was not provided in the data as opposed to being treated as a zero value in SPSS.

When choosing a data analysis, assumptions testing aid in determining if accurate and reliable conclusions can be drawn from the results. Assumptions are the requirements that must be fulfilled before conducting an analysis (Pallant, 2013). Using SPSS 27.0, the assumptions for multiple regression were tested. The statistical assumptions of multiple regression are that there

is no multicollinearity present, or that variables are not too highly correlated; homoscedasticity, variance of error terms are similar among predictor variables; normality, determining whether variables are normally distributed; independence of observations, as well as linearity (Hox, 2013). Scatterplots were generated to check for violations of linearity as well as to check for outliers. The scatterplots were used to determine if the relationships between self-efficacy and academic achievement and between perceptions of support and academic achievement were positive or negative, based on the distribution of data points.

The guiding research question and the related hypotheses were analyzed. An alpha level of significance of .05 was used to interpret the significance of the overall model and of the individual coefficients. Multiple regression was conducted using self-reported GPA for academic achievement as the dependent variable and the independent variables of self-efficacy and perceived social support, measured with data from the ASES and the MSPSS, respectively.

Threats to Validity

Potential threats to validity may be of an internal or external nature. Threats to internal validity are treatments, procedures, or experiences that threatens the researcher's ability to draw correct inferences from data about the study population (Creswell & Creswell, 2018). A potential threat to internal validity consisted of a subject effect known as social desirability bias in which subjects responded to the survey in a manner which they perceived to be desirable (Fisher, 1993). Reported in research is that when surveys are self-administered, social desirability bias is often reduced and among self-administered survey methods such as web surveys, computer-assisted telephone interviewing, and interactive voice recognition, such bias was reduced most with the use of web surveys (Fisher, 1993).

A threat to external validity includes the researcher generalizing results to groups not under study (Creswell & Creswell, 2018). The population of this study is first-generation African American females at a public HBCU in the southeast region of the United States. The intended population to generalize the results is first-generation African American females at other public HBCUs with similar student body characteristics as the research site. There is one other public HBCU in the same state as the research site. An explicit explanation of the purpose of the study may have helped to counter this threat to external validity, preventing generalization to groups not under study such as first-generation African American females at private HBCUs or students who are not first-generation.

Ethical Procedures

Students attending a public HBCU in the southeast region of the United States of America were offered an invitation, via Blackboard, to participate in the study survey, which sought participants aged 18 and older. The post contained a link to a consent form and explained that participation was voluntary. The privacy of participants was respected. Creswell and Creswell (2018) assert that investigators conducting survey research must disassociate names from responses when coding and recording data. In the case of this research, participants were not asked to provide their name. Participants' personal identifiable information was not collected. Data will be held anonymously. Responses collected via Survey Monkey have been and will continue to be securely maintained. Data will be aggregated when discussed in research studies, aiding in anonymity. The principal investigator has maintained and will continue to maintain the collected data in a secure manner on a personal password-protected computer for five years.

In addition to anonymity of participants, data will be kept confidential. The data may be used by the principal investigator for future inquiry relating to factors that may affect student persistence. After five years, the data will be deleted and cleared from the principal investigator's password-protected computer with the use of software. Ethical concern associated with accidental release of confidential information is minimal because data will not be shared and will only remain on the personal computer of the principal investigator. In the case of a data breach, individuals will not be identified because no personally identifiable information was collected from participants. Correspondence from the research site included an approved proposal to collect data, required by the IRB at the research site (see Appendix F). As the principal investigator, I pledge to adhere to the ethical requirements of Walden University as well as to the ethical requirements of the University research site.

Summary

In Chapter 3, the quantitative methodology approach that was used to explore self-efficacy and perceived social support as predictors of academic achievement among first-generation African American females was detailed. Discussed in the research design and rationale section were the research question, variables, as well as procedures for data collection. The survey instruments, the ASES, an instrument designed to assess self-efficacy, and the MSPSS, which has been used to assess perceived social support, have been detailed in the instrumentation section. Ethical considerations were also discussed. The survey has been administered to the population of interest and results are presented in Chapter 4.

Chapter 4: Results

The purpose of this quantitative study was to explore the extent to which academic achievement may be predicted by self-efficacy and perceived social support among first-generation African American females attending a four-year HBCU located in the southeast region of the United States. The research question pertaining to the study was: To what extent do self-efficacy and perceived social support predict academic achievement for first-generation African American females? Multiple linear regression was used to analyze the amount of variance in academic achievement, operationalized as GPA, using the variation in self-efficacy and perceived social support. I hypothesized that self-efficacy and perceived social support would predict academic achievement for first-generation African American females.

Data Collection

Participants acknowledged their understanding that participation was voluntary and that they could exit the survey at any time without consequences. The survey link became operational on November 10, 2020, provided to one instructor at the research site to post. Per discussion in Chapter 3, I planned to leave the survey link operational for three weeks. However, the sample goal of 68 participants had not been met within a three-week time frame. On March 10, 2021, the research site's IRB granted approval to seek assistance from more than one instructor to post the survey link as well as approval to make the survey link available on social media sites affiliated with the research site. On March 22 and March 29, 2021, I emailed the survey link to more instructors at the research site and through a messaging application called Messenger, I messaged Facebook and Instagram accounts affiliated with the University asking them to share the survey link. On April 9, 2021, the sample goal had been met.

Descriptive Statistics

Study participants were of age 18 years or older, consisting of graduate and undergraduate students, male and female. Among the 112 students who consented to participating in the survey, 68 participants responded "Yes" and 44 participants responded "No" to the question, "Do you identify as a first-generation African American female?" Having not met the study inclusion criteria of identifying as first-generation, African American, and female, the survey ended for those participants. Contrary to the original plan to survey only undergraduate students as discussed in Chapter 3, participants may have also been classified as graduate students because one of the four social media groups contacted were geared toward graduate students. In Fall, 2019, 55.6% African American females were enrolled at the research site (SCHEV, 2020). Table 2 presents the descriptive statistics of the continuous variables.

Table 2

Descriptive Statistics for the Continuous Variables

Variable	*Min*	*Max*	*M*	*SD*
Number of years attended college	0.00	10.00	3.07	1.51
Self-efficacy	3.42	8.69	6.64	1.11
Perceived social support	2.42	7.00	5.33	1.16
GPA	1.40	4.30	3.16	0.55

Statistical Assumptions

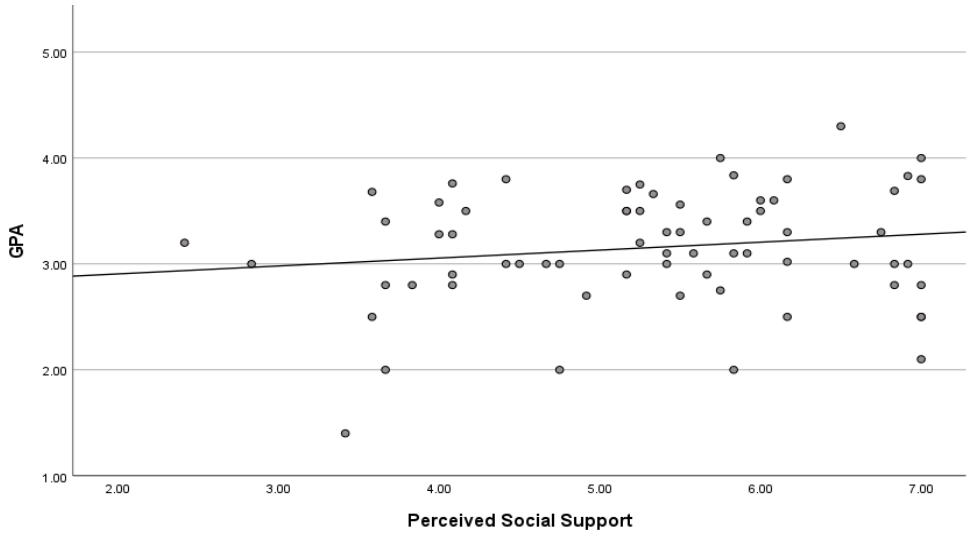
Independence of observation, linearity, homoscedasticity, normality, and absence of multicollinearity are assumptions associated with multiple linear regression (Hox, 2013). Each assumption was tested. All assumptions were met.

The assumption of independence of observations was verified with a Durbin-Watson test for each regression model. Durbin-Watson statistics approaching 2.00 indicate that there is no autocorrelation in the sample. The Durbin-Watson statistic was 2.302, supporting that the assumption for independence of observations was met.

The relationship between perceived social support with GPA depicted a linear, slight positive trend (see Figure 2).

Figure 2

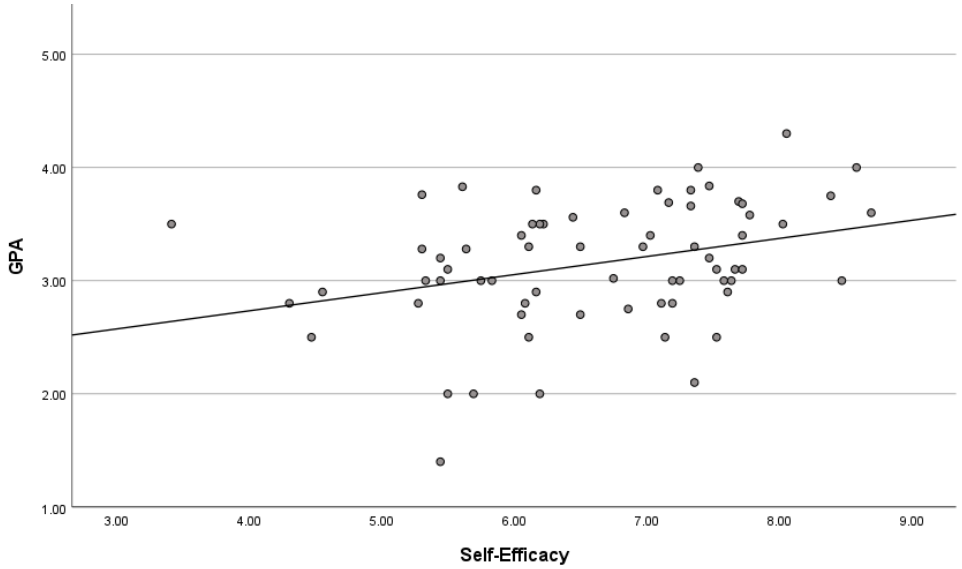
Scatterplot Between Perceived Social Support and GPA



The relationship between self-efficacy with GPA depicted a linear, stronger positive trend (see Figure 3). The assumption of linearity was met.

Figure 3

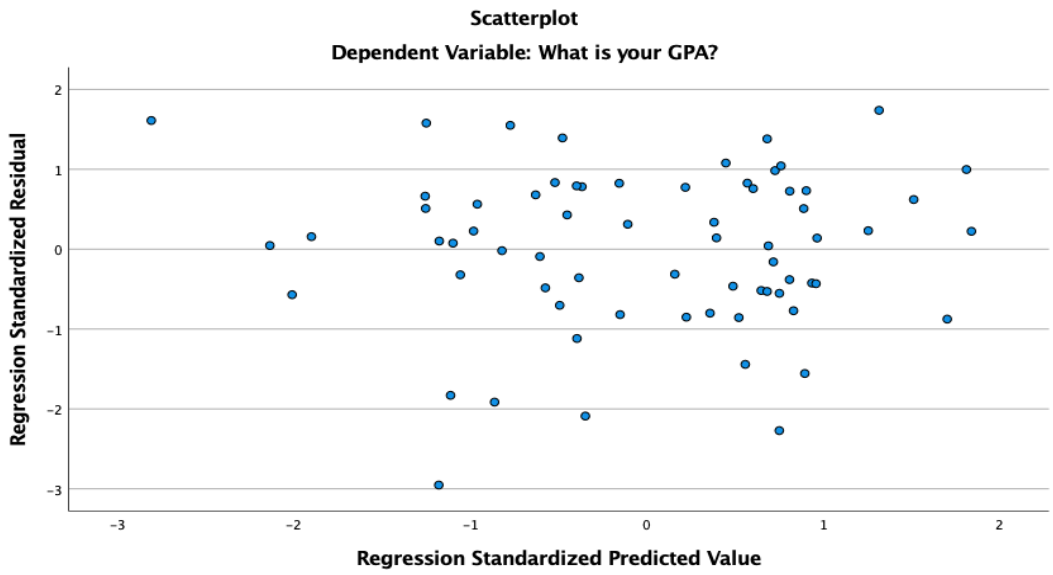
Scatterplot Between Self-Efficacy and GPA



Homoscedasticity was verified with a residual scatterplot (see Figure 4). There was not a recurring pattern in the scatterplot. The residuals were equal across the regression line, indicating that the assumption of homoscedasticity was met.

Figure 4

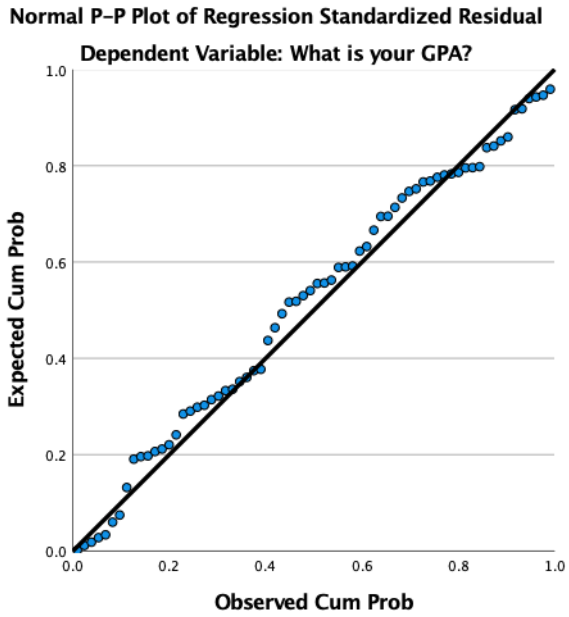
Homoscedasticity Scatterplot



The assumption of normality was tested with normal P-P scatterplots (see Figure 5). The data closely followed the normality trend line in the plot, indicating that the residuals were approximately normally distributed. The assumption of normality was met.

Figure 5

Normal P-P Plot



Absence of multicollinearity was tested with variance inflation factors for the multiple linear regression model. Kim (2019) discussed that absence of multicollinearity is not supported if variance inflation factor values are greater than 10. The variance inflation factor values for self-efficacy and perceived social support were 1.212, indicating that the variables were not highly correlated. The assumption of absence of multicollinearity was met.

Results

To address the research question, I examined the statistical significance of self-efficacy and perceived social support as predictors of academic achievement among first-generation, African American females. A multiple linear regression was carried out to investigate whether self-efficacy and perceived social support could significantly predict GPA. The results of the

regression indicated that self-efficacy and perceived social support together explain a significant amount of the variance in GPA, *(F*(2, 65) = 3.861, *p* = .026, R^2 $_{\text{Adjusted}}$ = .079).

The R^2 value of .106 associated with this regression model suggests that the predictor variables account for 10.6% of the variance in GPA, which means that 89.4% of the variance in GPA cannot be explained by the predictor variables. The coefficient for the self-efficacy variable was statistically significant, $p < .05$, indicating that GPA may be predicted, in part, by self-efficacy. Controlling for perceived social support, the regression coefficient associated with self-efficacy, [β = .313, *t*(67) = 2.425, *p* = .018], suggests that with each additional self-efficacy unit, GPA increases by approximately .313 units. The confidence interval associated with the regression analysis does not contain 0. The null hypothesis, there is no association between self-efficacy and academic achievement, may be rejected. Table 3 presents the regression results using GPA as the criterion.

Table 3

Regression Results Using GPA as the Criterion

Predictor	Unstandardized Coefficients		Standardized Coefficient	*t*	*p*	95% Confidence Interval for *b*	95% Confidence Interval for *b*
	b	Standard Error	β			Lower Bound	Upper Bound
Constant	2.061	.416		4.955	<.001	1.230	2.891
Self-Efficacy Total	.154	.064	.313	2.425	.018	.027	.281
Perceived Social Support Total	.013	.061	.028	.217	.829	-.108	.135

While self-efficacy was statistically significant, perceived social support, $p > .05$, was not statistically significant in the model. The confidence interval associated with the regression

analysis contains 0. The null hypothesis, there is no association between perceived social support and academic achievement, may not be rejected.

Summary

In this chapter, the findings of the data analysis were presented for investigation of the extent to which self-efficacy and perceived social support predict academic achievement. Data for both perceived social support and self-efficacy met the acceptable threshold for internal consistency. Descriptive statistics were used to examine the trends of the continuous-level data. To address the research question, a multiple linear regression analysis was conducted. Self-efficacy was a significant predictor of academic achievement. Perceived social support was not a significant predictor of academic achievement. In Chapter 5, the findings of the data analysis will be examined in the context of the literature review. Limitations of the current research and recommendations for future research will be discussed.

Chapter 5: Discussions, Conclusions, and Recommendations

According to Bandura (1998), self-efficacy is shaped by social support and influences one's motivation toward and execution of certain actions, such as completing necessary requirements for an individual to excel in college. While various populations are subjects of study in research pertaining to self-efficacy and perceived social support, more research was necessary to address the gap in literature relating to whether self-efficacy and perceived social support predict academic achievement among first-generation African American female students. Such research may be beneficial to determine how best to support this population of students given the distinct barriers to success they face, such as perceptions of low social support (Woods-Giscombé, 2010; Woods-Giscombé et al., 2019), intersectional identities (Smith et al., 2019; Williams et al., 2020), and lack of guidance from family along their journey to higher education program completion (Williams et al., 2020). The purpose of this research was to determine the extent self-efficacy and perceived social support predict academic achievement among first-generation African American females at a HBCU in the southeast region of the United States. Multiple regression analysis showed a positive predictive relationship between self-efficacy and academic achievement for this population of students. Perceived social support was not shown to significantly predict academic achievement.

Chapter 5 presents an explanation of the findings presented in Chapter 4. Limitations and recommendations for future research will be discussed. Furthermore, Chapter 5 will suggest applications and implications for positive social change relating to first-generation African American females attending public HBCUs, change that has the potential to positively benefit other populations of students.

Interpretation of the Findings

Perceived Social Support

Regarding perceived social support as a predictor of academic achievement, results of this current study supported that perceived social support does not significantly predict academic achievement. The results of this study confirm knowledge in current literature. Tinajero et al. (2020) found that availability of global support, known as perception of support from multiple sources, does not predict academic achievement, although availability of global support in the presence of support was found to predict GPA. Use of the whole MSPSS scale in this current study may be considered to represent global support. Although results of this current study reflect a slightly positive relationship between overall perceived social support and GPA, the results were not statistically significant.

The results of this study also disconfirm findings in current literature. Tinajero et al. (2020) found GPA to significantly correlate with satisfaction with support and that perceived support in the form of reassurance of worth predicts GPA. Frazier et al. (2019) ascertained that perceived support from family and friends buffers stress and significantly predicts academic achievement. Rodriguez et al. (2017) found family support to indirectly predict academic achievement among traditional first-year Spanish university students. Results of a study by Yano et al. (2021) indicate that perceived social support from family and friends significantly predict perceived campus safety, self-evaluation, and satisfaction with academic achievement. For this current study, overall perceived social support consisting of support from family, friends, and a significant other, was not statistically significant in predicting academic achievement.

Self-Efficacy

Results of the multiple regression model revealed that whereas the regression of self-efficacy was statistically significant, its practical significance is limited due to the small amount of variance explained. Although many different populations of students were the subjects of study in other research supporting the nature of self-efficacy to predict academic achievement, the results of this current study confirm results of those studies. In some studies, academic achievement was referred to as academic performance. Study results of Alhadabi and Karpinski (2020) revealed that self-efficacy predicts academic performance by increasing positive effects of mastery and performance approach goals while reducing the negative effects of avoidance goals. Alyami et al. (2017) found a low, yet significant, correlation between self-efficacy and academic performance among psychology students who completed a self-efficacy scale online. Using students enrolled in a pre-service teacher education program as the sample of study, Nasir and Iqbal (2019) found a significant and positive correlation between self-efficacy and academic achievement and found that overestimation of one's self-efficacy may negatively affect academic achievement. In a longitudinal study in which academic performance and self-efficacy were investigated as reciprocal variables, Talsma et al. (2018) found self-efficacy to predict academic performance and academic performance to predict self-efficacy for adult participants. For youth participants, however, academic performance was found to predict self-efficacy. In research pertaining to graduate students, Waseem and Asim's (2020) Structural Equation Modeling results indicated that self-efficacy significantly predicts academic performance.

Theoretical Framework

The theories used as a framework for this study were Bandura's self-efficacy theory (1977) and social cognitive theory (1998), as well as the strong Black women schema. Self-efficacy refers to "doing" or the likelihood of completing a task or accomplishing a goal (Bandura, 1977, 1997). The self-efficacy theory explains that personal beliefs about one's own capabilities influence learning. For example, maintaining focus on what could be as opposed to dwelling on what could go wrong may facilitate a positive outlook and goal accomplishment. As a result, academic achievement may be positively affected. When thoughts are directed towards performing an action, more motivation is expended towards acting on those thoughts (Bandura, 1994).

The social cognitive theory details how learning, inclusive of the acquisition of knowledge and understanding, is shaped by observations during social interactions. A responsive environment lends to cognition or how a person thinks, influences behavior, and enhances personal efficacy (Bandura, 1998). Social support directly affects self-efficacy (Bandura, 1998). When one perceives social interactions to lack support which is useful to facilitate a sense of belonging and well-being, self-efficacy may be jeopardized (Bandura, 1998). Supportive social interactions are beneficial for success in an academic setting. Simple encouraging remarks (e.g., you can pass this course) may help to increase self-efficacy. Self-efficacy determines which information is useful to take away when observing others as well as the decision to model others and reproduce observed behaviors. Not only does social support influence self-efficacy, self-efficacy influences social support by facilitating cognition.

The results of this study align with the self-efficacy theory and the social cognitive theory (Bandura, 1977 and 1998). Although results do not confirm that perceived social support predicts academic achievement, perceived social support in the context of self-efficacy and academic achievement is worthy of research. According to the social cognitive theory, a responsive environment providing social support influences a higher level of self-efficacy compared to an environment lacking social support. Results of this research study confirm that self-efficacy significantly predicts academic achievement.

Limitations of the Study

Limitations existed in this study. Grade point averages were self-reported, presenting the possibility that students were not honest with their response. Dishonest responses, particularly about grade point average or perceived support from family, friends, or a significant other, may have occurred due to the possibility that the participants were in the presence of others when completing the survey. Bias could have resulted after participants read the consent form and answered questions in a manner which they perceived to be desirable (Fisher, 1993). Mentioned on the consent form is the study's purpose of investigating perceived social support. According to research, many Black women feel an obligation to present an image of strength as well as to suppress emotions (Allen et al., 2019; Liao et al., 2019; Watson & Hunter, 2016; Watson-Singleton et al., 2017; West et al., 2016; Woods-Giscombé et al., 2019), which is the very premise upon which the strong Black woman schema is based. Participants, all Black women, may have answered questions about perceived social support in a manner believed to be socially desirable. Every attempt was made to prevent bias when the consent form was written. Study data does not support the presence of bias or dishonesty.

An additional limitation was the lack of items on the survey relating to demographics which may have been useful for interpreting findings. For example, seeking information to determine whether a participant's college attendance has been interrupted and reasons why may have provided further insight as to why Black females take longer to complete higher education programs compared to females and males of all other races. Intentions were to keep the demographic section of the survey succinct to facilitate completion of the survey in its entirety, as the instrument also consisted of two scales, the ASES and the MSPSS. At the time the survey was designed, I did not believe that having access to additional demographic data would be more beneficial than the brevity of the survey. Results may be generalized to first-generation African American females at public HBCUs in the southeast region of the United States of America. Sampling from public HBCUs across the United States would have improved the ability to generalize the results to students across the United States.

Recommendations

The results of this study contribute to understanding self-efficacy as a predictor of academic achievement among first-generation African American females. As a precursor to self-efficacy (Bandura, 1977, 1997, 1998), perceived social support should be of focus in addition to self-efficacy when considering measures to enhance academic achievement. One recommendation is to collect data of a different population of students to compare to the study population. For example, collecting data from male students would afford the opportunity to compare data between the two genders to better assess self-efficacy and perceived social support as predictors of academic achievement among the female population of study. A second recommendation is to collect data to determine whether the members of the study population

internalize the strong Black woman schema by using a scale such as the Stereotypic Roles of Black Women Scale (Thomas et al., 2004) or the Giscombe Superwoman Schema Questionnaire (Woods-Giscome et al., 2019). A third recommendation is researching with the use of a mixed methods methodology to facilitate in-depth analysis of the subjects' perspective as they pertain to perceived social support and issues that impede their academic progress. A final recommendation is to conduct this study on a larger scale, collecting information to determine how personal factors such as income, number of hours worked per week, interruption of college attendance, support perceived from higher education faculty and staff, a sense of belonging and academic adjustment, and even school pride (highly emphasized at HBCUs) affect higher education completion.

Implications for Social Change

Forty-five percent of Black students at traditional colleges and universities graduate within 6 years compared to almost 65% of White students (Nichols & Evans-Bell, 2017). HBCUs confer 37.8% of degrees to Back students while non-HBCUs confer 32% of degrees to Black students (Nichols & Evans-Bell, 2017). Further research was warranted to understand how best to support first-generation African American females on their journey toward degree completion, particularly considering challenges they face pertaining to perceptions of low support. Obstacles that impact their college experience and are unique to first-generation African American females include perceived lack of social support (Allen et al., 2019; Liao et al., 2019; Watson & Hunter, 2016; Watson-Singleton et al., 2017; West et al., 2016; Woods-Giscombé et al., 2019), obligations to fulfill multiple community and family roles (Kim et al., 2021; Watson & Hunter, 2016; Woods-Giscombé, 2010; Woods-Giscombé et al., 2019), and

challenges negotiating identity (Haynes, 2019a; Haynes, 2019b; Kim et al., 2021; Leath et al., 2022; Williams et al., 2020). These obstacles may not be easily observed in a college environment (Kim et al., 2021). Therefore, support from faculty and institutional support provided by way of program initiatives aimed at buffering the effects of the challenges faced by this population of students may be critical to academic achievement and improved graduation rates. The findings of this study and the resulting recommendations may be used to close the achievement gap between first-generation students and their continuing generation counterparts, as well as between African American females and females and males of other races. Results may be used to refine policies and design and implement programs aimed at developing academic achievement for the population of study.

The current study is significant for several reasons. First, the results may help other first-generation college students, their parents, college professors, and administrators to gain awareness of any influence self-efficacy may have on academic achievement when working towards degree completion. Second, the results may help college officials adopt, implement, and improve recruitment and retention strategies so that they are more readily able to support and maintain African American female first-generation students. Perhaps the strategies would be more beneficial if they were to involve assessing students' self-efficacy to better determine how to facilitate their college experience. Third, faculty associated with college programs designed for first-generation college students such as TRIO and Upward Bound may use the results of this study to improve their strategies for accommodating and providing support to first-generation college students. Furthermore, the results of the current study may aid officials within institutions of higher learning to understand more in-depth the trajectory of African American

students so that they are more willing to create and promote policies and procedures that lend to increased degree attainment for this population of students. Fourth, the research and results may lend to the decision of higher education institutions to assess the psychological and social wellbeing of students during various phases of their education program. Finally, this study is significant because it will add to the body of literature, focusing on first-generation African American female college students, as well as the predictive nature of self-efficacy and perceived social support to predict academic achievement among this population of students. As the advancement of this population is promoted, particularly regarding improved graduation rates, so too is positive social change.

Conclusion

Research regarding self-efficacy and perceived social support exists in literature for many different populations. Literature regarding the nature of these two variables to predict academic achievement among first-generation, African American females is scarce but worthy of study. Black women are known for perceptions of low social support because they are often the caregivers, the matriarchs, the breadwinner, and the pillar of their family and community due to social norms that historically have not been equitable for people of color. As a result, self-efficacy for this population of students may diminish, negatively affecting academic achievement while many are already faced with adversity associated with first-generation status and challenges associated with higher education completion.

In review of literature, research conducted within the last five years that relate to key study terms was detailed, such as the role HBCUs play in African American student development (Bracey, 2017; Shappie & Debb, 2017; White-Cummings, 2017), first-generation

student development (Nichols & Evans-Bell, 2017; Quinn et al., 2019), and how Black women are prone to mental and physical distress by taking on a superwoman role by extending themselves too far as they tackle everyday life (Abrams et al., 2019; Watson & Hunter, 2016; Watson-Singleton, 2017; Woods-Giscombe, 2010). The focus of this research was on first-generation African American females enrolled at a public HBCU because they make up the greatest proportion of enrollment at HBCUs. Yet, fewer Black students complete a four-year bachelor's degree program within 6 years compared to White students (Nichols & Evans-Bell, 2017).

The theoretical framework for this study, Bandura's (1977, 1998) self-efficacy theory and social cognitive theory, was used to exhibit the critical role of self-efficacy and social support in academic success. The theories guided research pertaining to topics that enhance and inhibit success, particularly for first-generation African American females at public HBCUs. The strong Black woman schema is a theory that was also used to guide research, substantiating the need for Black women, especially those who embrace the superwoman role (Woods-Giscombe, 2010) to perceive social support, preventing compromised mental health.

Survey research was used to conduct a quantitative study. Data was collected from first-generation African American females at a public HBCU in the Southeast region of the United States. The survey was composed of a demographic questionnaire, the MSPSS (Zimet et al., 1998), and the ASES (Elias & Loomis, 2000). Regarding the ASES, items related to general course efficacy, physical education course efficacy, and milestone efficacy were included in the

design of the survey for this current research but not analyzed as separate sectors. Self-efficacy was analyzed in relation to all items collectively. With the MSPSS, perceived social support was analyzed in relation to all items collectively.

Statistically significant results supported that self-efficacy predicts academic achievement among first-generation African American females. The significance of these results lies in the contributions made to existing literature, filling a gap in research for this population of students, particularly pertaining to self-efficacy and perceived social support as a precursor to self-efficacy. Study research and results may be used to implement programs aimed at facilitating academic achievement of first-generation African American females with a focus on enhancing social support and self-efficacy. Finally, results may be used to design future studies which seek participants' perspectives regarding barriers to higher education completion with the mission of developing first-generation African American females, facilitating positive social change.

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Appendix A: Recruitment Invitation

Greetings,

My name is Felicia Brown Kelly. I am a current doctoral student at Walden University. I am the Principal Investigator of research that may be used to help understand student performance at Historically Black Colleges and Universities and facilitate programs that assist students during their higher education studies. Specific topics this research will explore include self-efficacy or confidence in your ability to complete a certain task, academic performance, and perceived social support. I am inviting you to join my research. You may fit the population of the research. Participation is voluntary but you must be at least 18 years old to participate.

If you agree to participate in the study, you will be asked to complete a survey. The survey may take up to 15 minutes to complete. Your responses might be published as part of a research study. However, any personally identifiable information, such as your email address, will remain confidential. All participants will remain anonymous. If you have questions or concerns regarding the research study, please contact me at Felicia.brownkelly@waldenu.edu.

To consent to and complete the survey form, African American First-generation Female Student Performance, please click on the following link or copy and paste the address into your browser's address bar: [*survey link*]

I thank you for your time and consideration. *Felicia Brown Kelly*

Appendix B: Survey Instrument

African American First-generation Female Student Performance

This survey examines confidence as it relates to perceived social support and academic performance. The survey may take up to 15 minutes to complete. Your responses may be published as part of a research study. However, all participants will remain anonymous. As a research participant, you will be contributing to addressing a gap in research pertaining to barriers to college degree attainment.

Thank you for completing the survey.

* Required

Background

Do you identify as an African American, first-generation, undergraduate female student? *
For the purpose of this study, African American is defined as "An American of African and especially Black African descent." First-generation refers to those whose parents have not attended college.

- ○ Yes
- ○ No

Has your mother or father attended college?

- ○ Yes
- ○ No

Up to this academic semester, how many years have you attended college? *

What is your GPA?

Do you have a brother or sister who has attended college before you? *

- ○ Yes
- ○ No

Self-efficacy Confidence Measures

Indicate how much confidence you have in completing a course with a grade of "B" in each of the following subjects: *

	No confidence at all									Complete confidence
Aerobic Exercise	0	1	2	3	4	5	6	7	8	9
African American History	0	1	2	3	4	5	6	7	8	9
American Ethnicity	0	1	2	3	4	5	6	7	8	9
Anthropology	0	1	2	3	4	5	6	7	8	9
Art	0	1	2	3	4	5	6	7	8	9
Astronomy	0	1	2	3	4	5	6	7	8	9
Biology	0	1	2	3	4	5	6	7	8	9
Chemistry	0	1	2	3	4	5	6	7	8	9
Communication	0	1	2	3	4	5	6	7	8	9
Composition	0	1	2	3	4	5	6	7	8	9
Course on India	0	1	2	3	4	5	6	7	8	9
Dance	0	1	2	3	4	5	6	7	8	9
Economics	0	1	2	3	4	5	6	7	8	9
English	0	1	2	3	4	5	6	7	8	9
Geography	0	1	2	3	4	5	6	7	8	9
Mathematics	0	1	2	3	4	5	6	7	8	9
Philosophy	0	1	2	3	4	5	6	7	8	9
Physics	0	1	2	3	4	5	6	7	8	9
Political Science	0	1	2	3	4	5	6	7	8	9
Psychology	0	1	2	3	4	5	6	7	8	9
Swimming	0	1	2	3	4	5	6	7	8	9
Tennis	0	1	2	3	4	5	6	7	8	9
Weight Training	0	1	2	3	4	5	6	7	8	9

Indicate how much confidence you have in earning the following cumulative grade point average (GPA): *

	No confidence at all									Complete confidence
2.0 GPA after two years of study	0	1	2	3	4	5	6	7	8	9
3.0 GPA after two	0	1	2	3	4	5	6	7	8	9

	No confidence at all										Complete confidence
years of study											
2.0 GPA after three years of study	0	1	2	3	4	5	6	7	8	9	
3.0 GPA after three years of study	0	1	2	3	4	5	6	7	8	9	

Indicate how much confidence you have in the following: *

	No confidence at all										Complete confidence
Complete 45 semester hours of upper-division courses (300-400 level)	0	1	2	3	4	5	6	7	8	9	
Complete all major requirements with at least a 3.0 GPA	0	1	2	3	4	5	6	7	8	9	
Pass all courses over the next semester	0	1	2	3	4	5	6	7	8	9	
Pass all courses over the next two semesters	0	1	2	3	4	5	6	7	8	9	
Pass all courses over the next three semesters	0	1	2	3	4	5	6	7	8	9	
Graduate from the school you attend with a grade point average of at least 2.0	0	1	2	3	4	5	6	7	8	9	
Graduate from the school you attend	0	1	2	3	4	5	6	7	8	9	

	No confidence at all									Complete confidence
with a grade point average of at least 3.0										
Graduate	0	1	2	3	4	5	6	7	8	9

Perceived Social Support Measures

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you are **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**

	Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1. There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2. There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3. My family really tries to help me.	1	2	3	4	5	6	7
4. I get the emotional help & support I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6. My friends really try to help me.	1	2	3	4	5	6	7
7. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8. I can talk about my problems with my family.	1	2	3	4	5	6	7
9. I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10. There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11. My family is willing to help me make decisions.	1	2	3	4	5	6	7
12. I can talk about my problems with my friends.	1	2	3	4	5	6	7

Submit

100%: You made it.

Results will be compiled, analyzed, and provided to your instructor to post in Blackboard.

Thank you for completing the research study about confidence, perceived social support, and undergraduate student performance.
Your response has been recorded.

Appendix C: Background Demographic Questionnaire

Please read each question carefully and provide a complete response.

1. In consideration of all the above, I give my consent to participate in this research study. To protect your privacy, no consent signature is requested. Instead, you may indicate your consent by clicking "continue" below.

Continue I do not accept the above terms

2. Do you identify as a first-generation African-American female student?
For the purpose of this study, African-American is defined as "an American of African and especially of Black African descent." First-generation refers to those whose parents have NOT attended college.

Yes No

3. Including this academic semester, how many years have you attended college?

Less than 1 year 1 year 2 years 3 years 4 years
5 years 6 years More than 6 years

4. What is your grade point average (GPA)? (Choose one)

Below 2.0__ 2.0__ 2.1__ 2.2__ 2.3__ 2.4__ 2.5__ 2.6__ 2.7__ 2.8__ 2.9__

3.0__ 3.1__ 3.2__ 3.3__ 3.4__ 3.5__ 3.6__ 3.7__ 3.8__ 3.9__ 4.0__ Above 4.0__

5. Do you have a brother or sister who attended college before you?

Yes No

6. How much overall support do you feel you have to complete your college program?

1 2 3 4 5
Very little support Very much support

Appendix D: Academic Self-Efficacy Scale (ASES)

General Course Efficacy

1. Complete a course in composition with a grade of "B".
2. Complete a course in astronomy with a grade of "B".
3. Complete a course in economics with a grade of "B".
4. Complete a course in anthropology with a grade of "B".
5. Complete a course in biology with a grade of "B".
6. Complete a course in mathematics with a grade of "B".
7. Complete a course in geography with a grade of "B".
8. Complete a course in philosophy with a grade of "B".
9. Complete a course in American ethnicity with a grade of "B".
10. Complete a course in African American History with a grade of "B".
11. Complete a course in political science with a grade of "B".
12. Complete a course in English with a grade of "B".
13. Complete a course in chemistry with a grade of "B".
14. Complete a course on India with a grade of "B".
15. Complete a course in art with a grade of "B".
16. Complete a course in communication with a grade of "B".
17. Complete a course in psychology with a grade of "B".
18. Complete a course in physics with a grade of "B"

Physical Education Efficacy

19. Complete a course in dance with a grade of "B".
20. Complete a course in aerobic exercise with a grade of "B".
21. Complete a course in weight training with a grade of "B".
22. Complete a course in tennis with a grade of "B".
23. Complete a course in swimming with a grade of' B".

Milestone Efficacy

24. Earn a cumulative grade point average of at least 2.0 after two years of study.
25. Earn a cumulative grade point average of at least 3.0 after two years of study.
26. Earn a cumulative grade point average of at least 2.0 after three years of study.
27. Earn a cumulative grade point average of at least 3.0 after three years of study.
28. Complete 45 semester hours of upper-division courses (300-400 level).
29. Complete the requirements for your academic major with a grade point average of at least 3.0.
30. Successfully pass all courses enrolled in over the next semester.
31. Successfully pass all courses enrolled in over the next two semesters.
32. Successfully pass all courses enrolled in over the next three semesters.
33. Graduate with a grade point average of at least 2.0.
34. Graduate with a grade point average of at least 3.0.
35. Graduate.

***This scale is published in a public domain. Permission to use did not have to be obtained from the authors.**

Appendix E: Multidimensional Scale of Perceived Social Support (MSPSS)

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you are **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**

		Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1.	There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2.	There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3.	My family really tries to help me.	1	2	3	4	5	6	7
4.	I get the emotional help & support I need from my family.	1	2	3	4	5	6	7
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6.	My friends really try to help me.	1	2	3	4	5	6	7
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7
12.	I can talk about my problems with my friends.	1	2	3	4	5	6	7

***This scale is published in a public domain. Permission to use did not have to be obtained from the authors.**

Appendix F: Research Site Correspondence

IRB Number 1920-49 **Information redacted to secure privacy of research site.*

Institutional Review Board
Research with Human Subjects
Re-Submission Form

Please tell how you plan to address the comments/concerns provided below. Send this paper as well as the revised IRB protocol form and all of the revised required documentation that was submitted with the initial submission.

1. The Registrar does not give out student emails. Provide another way of contacting the students.
2. Cannot use 17 year old students unless you have parental consent.
3. The PI does not have an email address.
4. Need approval from the thesis/dissertation committee prior to IRB submission.

Name (in print) _____

Signature _____ Date _____

Instructions

- Answer all questions in their entirety. Some questions may contain sub-questions. Failure to answer all questions will result in your application being returned to you.

- Research Design: Attach as a separate document a detailed description of the study to include the purpose, methodology, planned data analysis section. **Please DO NOT append your entire thesis/dissertation/grant proposal as a substitute for this document.** Your document should not exceed 5 pages.

- Supporting Documentation: Attach the Consent Form, all surveys, questionnaires, certificates, or third-party support letters along with the IRB Submission application.

- Remember both the Principal Investigator, and Co-Investigator/Advisor must sign the Investigator's Assurance Page. Both the Principal Investigator and Co-Investigator/Advisor must also provide evidence of CITI training.

- **Email the documents as one pdf, do not email documents separately. Email the application to** [redacted]

[redacted]

Institutional Review Board
Research with Human Subjects
Submission Form

Federal regulations and [redacted] policy require that all research involving human subjects are to be reviewed and approved by the University Institutional Review Board (IRB). Any person (faculty, staff, student or non-[redacted] person) wanting to engage in human subject research at [redacted] must receive written approval from the IRB before conducting research.

Please complete this entire form, sign and return with the required documentation to the address located at the bottom of the form.

NOTE: To receive a fillable form send an email to [redacted]

I. GENERAL INFORMATION (Type in the gray area)

A. Research, Dissertation or Thesis Title: **Self-efficacy and Academic Success of First-generation African American Females**

Is this research part of a thesis or dissertation proposal? X Yes ☐ No
If yes, has the thesis or dissertation proposal been approved? ☐ Yes X No
Date approved: _____
Name of Thesis/Dissertation Advisor: **Leslie Van Gelder**
Department: **School of Education** Phone No.: [redacted]

Principal Investigator Information (If the PI is a graduate student please indicate advisor's name in item 3).

1. Principal Investigator **Felicia Brown**	Department and Campus PO Box No.
2. Telephone and Fax Numbers [redacted]	Email Address
Please check if PI is:	***Non-[redacted] members complete this section:***

Faculty ( ) Staff ( ) Graduate Student (**X**) Non-[redacted] faculty/staff or student	Name of University and mailing address **Walden University 100 Washington Avenue South, Suite 900, Minneapolis, MN 55401**
3. Co-Principal Investigator or Advisor **Leslie Van Gelder, Committee Chair**	Department and Campus PO Box No.
4. Telephone Number [redacted]	Email Address
Please check if Co-PI is: ( ) Faculty ( ) Staff ( ) Graduate Student (**X**) Non-[redacted] faculty/staff or student	***Non-[redacted] members complete this section:*** Name of University and mailing address **Walden University 100 Washington Avenue South, Suite 900, Minneapolis, MN 55401**

COMPLETE THIS SECTION IF PI IS AN UNDERGRADUATE STUDENT

Check one:	☐ Class Project	☐ Research Paper	☐ Other
Has the Thesis/Dissertation Committee approved the proposal? ☐ Yes, Date approved: _____ ☐ No			
Name of Research Supervisor: _____			
Department: _____		Phone No. _____	
Course Name (if applicable) _____			

II. PROTOCOL DESCRIPTION

Reason(s) for review by Human Subjects Committee (please check all that apply):

X [redacted] employees/students

☐ Persons otherwise dependent on the researcher (such as students of the researchers, etc.)

☐ Minors

☐ Students in a school system

Name of school system:_____

Other populations (explain): _____

III. RECRUITMENT (Begin typing in the gray area)

A. Give an estimate of how many participants will be included in the study?

The number of participants will depend on the number of survey responses received.

B. What is the age range? **17-23**

C. Where will participants be recruited? (i.e., specific department, public school system, etc)
[redacted]**, via an email survey sent to students.**

D. Describe in detail how participants will be recruited, or approached to participate in the research study.
A survey will be emailed to collect data from students enrolled during Summer semester or Fall semester. The target population is first-generation, African American females. Subjects will be selected from survey participants who fit the target population.

E. Explain procedures/steps for obtaining informed consent from participants. Be specific regarding who will obtain informed consent, and in what setting/time frame.

Proposed participants will receive a survey invitation via email. The invitation will introduce the purpose of the survey and explain that responses will be used to facilitate the collegiate experience for first-generation African American females. Voluntary participation in the survey, as well as the confidential nature of the survey, will be discussed.

F. Describe any alternative activities available to those who choose not to participate in the study, if applicable.
N/A

IV. DATA

A. How will the data be stored and kept secure? (Briefly describe where the data will be stored and kept secured from persons other than the researcher)
All data will be kept confidential and stored on the password-protected computer of the principal investigator. Data will be filed for 5 years.

B. 1) Who will have access? 2) How will the data be used [during and after the research (i.e., research publications, journals, conferences, scholarly presentations)]?
The Principal Investigator will have access to the data. During research, the data will be analyzed to determine the strength of the relationship between self-efficacy and academic performance of first-generation African American females. After the research, the data may be used for further research purposes at conferences and for scholarly presentations. The final research report will be shared with survey respondents upon request. Study findings

will be provided to officials of [redacted]

C. How will the data be disposed and after how many years?

After 5 years, the data will be deleted and cleared from the Principal Investigator's password-protected computer with the use of software.

V. CONFIDENTIALITY

A. How will participant's identity be kept confidential? (Describe how the participant privacy and confidentiality of the research data will be protected)

Any personally identifiable information, such as email addresses, will remain anonymous when responses are discussed in research studies. Data will be stored on the Principal Investigator's password-protected computer.

B. Will participants be recorded (e.g., audio, video)

(X) No

( ) Yes – describe the type of recording(s) and specify how they will be used, stored/secured, and their final disposition.

VI. BENEFIT

A. Who might find these results useful?

The results may help other first-generation college students, their parents, college professors, and administrators gain further insight regarding various obstacles that individuals face when working towards degree completion. The results may also help college officials adopt, implement, and improve recruitment and retention strategies so that they are more readily able to support and maintain first-generation college students. Furthermore, faculty associated with college programs designed for first-generation college students such as TRIO and Upward Bound may use the results of this study to improve their strategies for accommodating and providing support to first-generation college students.

VII. RESEARCH INSTRUMENTS

Attach copies of surveys, interview or focus group questions that will be used in the project and if applicable, any signed agreements between agencies/collaborators/school districts, etc.

VIII. TRAINING

[redacted] policy requires all investigators and/or researchers conducting human subjects' research to complete The **CITI Responsible Conduct of Research (CITI RCR**) training on protecting the rights and welfare of research participants.

The training requirements may be satisfied by completing an online course at CITI RCR https://www.citiprogram.org.

NOTE:

Students, who are submitting their thesis, dissertation, or class projects for IRB review, please do not complete the Basic/Refresher course, the Conflict of Interest or the Class project curriculum.

Investigator's Assurance

The signature(s) below certify that:

- The information provided in this application is complete and accurate
- Each individual listed as principal, co-investigator, or research team possesses the necessary experience for conducting research activities in their assigned role, and is aware of and will abide by [redacted] policies and procedures for the protection of research participants
- Each individual listed as principal, co-investigator, or research team member has received the required human research protection education
- No research procedures with human subjects will be initiated until documented approval has been obtained from the IRB Office.
- I also agree to report any significant and relevant changes in the procedures or research instruments to the Human Subjects Committee for additional review

Felicia Brown	June 19, 2018
Investigator's Signature	Date

Co-Investigator's Signature	Date

NOTE: Carefully review the application to ensure it is complete, contains sufficiently detailed responses to all questions, and all required attachments. Incomplete applications will be returned to the researcher potentially delaying the research.

COMPLETE THIS SECTION [For Sponsored Research & Programs Use Only]

IRB Number: 1920-49

Date Received: _____ Review Status:

Exempted ☐

Date Reviewed: _____ Categories 1 **2** **3** **4** **5** **6**

Name of Reviewer: _____ Expedited ☐

Categories 1 **2** **3** **4** **5** **6**

If Expedited: Name of Referred Committee Member: _____

Date Committee Member Reviewed: _____

For Committee Use Only

Full Committee Review Action:

APPROVED: _____ **DATE:** _____

Chairman or Designee of IRB

CONDITIONALLY APPROVED: _____ **DATE:** _____

Chairman or Designee of IRB

Conditional Provisions: (Use reverse side if necessary)

NOT APPROVED: _____ **DATE:** _____

Chairman or Designee of IRB