

**Utilizing Resilience and Persistence Strategies to  
Reduce African American Doctoral Attrition**

by

Dudley Davis

Presented in Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Philosophy

Liberty University

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APPROVED BY:

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### **Abstract**

The purpose of this qualitative phenomenological study is to explore the attrition rate of African American doctoral students and how to improve their retention and graduation using resilience and persistence. Across all disciplines, 40–60% of students who began doctoral programs did not persist to graduation (Falconer & Djokic, 2019; Mirick & Wladkowski, 2020). A semi-structured interview format was used to collect the data from 27 African American participants, 20 females and 7 males, who had already obtained their doctoral degrees. The study sought to explain the phenomenon of African American doctoral students who persevered to finish their degree, in spite of the overwhelming statistical attrition rate before them, and to identify the strategies they used to pull them through. The findings suggest African American doctoral students overwhelmingly relied on three strategies, time management, consistent communication with mentors/professors, and cohort/student support to push through their doctoral journey successfully. In addition, 81% of the participants, at one point or another, considered dropping out, a rate higher than the current attrition rate of 40–60%. The study provides recommendations for higher learning institutions, mentors, and students.

*Key Words:* Attrition, strategies, retention, African American, mentors, chair, cohorts, time management, persistence, resilience

**Copyright Page**

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## Table of Contents

Abstract.....	3
Table of Contents.....	6
List of Tables.....	11
List of Figures.....	12
Chapter 1: Introduction.....	14
Overview.....	14
Background.....	15
Historical Context.....	15
Social Context.....	18
Theoretical Context.....	19
Philosophical Worldview.....	23
Problem Statement.....	24
Purpose Statement.....	24
Significance of the Study.....	25
Research Questions.....	27
Central Research Question.....	27
Sub Question One.....	27
Sub Question Two.....	28
Definitions.....	28
Summary.....	29
Chapter 2: Literature Review.....	30
Overview.....	30
Related Literature.....	31
Racialized America: Culture in Higher Learning Institutions.....	31

Historical Perspective .....	35
Situation to Communication Tradition .....	36
Underrepresented Minority Doctoral Students .....	38
Current State of the Field.....	41
Challenges and Barriers .....	43
Disconnection .....	45
Managing Stress.....	45
Time Management .....	47
Internal Factors .....	47
Self-Efficacy .....	48
Mentorship: Faculty-Student Relationship .....	49
Institutional Factors .....	50
Existing Interventions .....	51
Resilience.....	54
Social Networks and Support.....	56
Positive Outlook .....	56
Learning and Early Experience.....	57
Environment and Lifestyle.....	58
Infrastructure and Support Services.....	59
Sense of Purpose .....	60
Diverse and Innovative Economy .....	60
Embracing Differences .....	61
Beliefs .....	62
Leadership.....	63
Persistence.....	64

Summary .....	67
Chapter 3: Methodology .....	72
Overview .....	72
Research Design.....	73
Research Questions.....	74
Setting and Participants Site .....	74
Participants.....	75
Research Positionality/Interpretive Framework .....	75
Philosophical Assumptions.....	75
Researcher’s Role .....	76
Procedures.....	76
Permissions .....	76
Recruitment Plan.....	77
Data Collection Plan .....	77
Data Synthesis.....	78
Trustworthiness.....	79
Credibility .....	80
Transferability.....	81
Dependability .....	82
Confirmability.....	82
Ethical Considerations .....	83
Summary .....	85
Overview.....	86
Participant Descriptions .....	86
Interview Protocol.....	87

Clarifying and Member Checking .....	88
Coding.....	88
Narrative Themes.....	88
Research Question .....	89
Data Analysis and Findings .....	89
1. What Problems did you Face Throughout the Process of Obtaining Your PhD?.....	89
Summary of Strategies: Questions 2–4.....	106
Saturation .....	106
Persistent and Resilient Strategies: Questions 3 and 4 .....	120
Sociocultural Finding.....	121
Summary of Findings.....	121
Overview.....	123
Interpretation #1: Time Management .....	125
Interpretation #2: Consistent Communication with Mentors/Professors.....	125
Interpretation #3: Cohort/Student Support.....	126
Interpretation #4: Dropping Out .....	126
Implications.....	127
Practical Implications.....	127
Theoretical Implications .....	128
Limitation and Delimitation.....	129
Recommendations and Future Research.....	129
Conclusion .....	131
References.....	132
APPENDICES .....	157
Appendix A: Liberty University IRB Approval .....	157

Appendix B: User Interview Site Authorization.....	158
Appendix C: Study Recruitment Protocol .....	159
Appendix D: Informed Consent.....	160
Appendix E: CITI Behavioral Research Certificate .....	163

**List of Tables**

Table 1.1. Problems Confronting Participants.....	90
Table 1.2. Number of Participants Cited Using These Strategies.....	107
Table 1.3. Number of Participants who Considered Dropping Out.....	108

## List of Figures

Figure 1.1. What Problems Did you Face Throughout the Process of Obtaining Your PhD?.....	92
Figure 1.2. Figure Title .....	92
Figure 1.3. Figure Title .....	92
Figure 1.4. Figure Title .....	93
Figure 1.5. Figure Title .....	93
Figure 1.6. Figure Title .....	93
Figure 2.1. What Strategies Did you Use to Overcome These Problems? .....	94
Figure 2.2. Figure Title .....	95
Figure 2.3. Figure Title .....	95
Figure 2.4. Figure Title .....	95
Figure 2.5. Figure Title .....	96
Figure 2.6. Figure Title .....	96
Figure 3.1. What Were the top Three Strategies That you Credited for Allowing you to Finish, Complete, and Obtain Your PhD? .....	98
Figure 3.2. Figure Title .....	99
Figure 3.3. Figure Title .....	99
Figure 3.4. Figure Title .....	100
Figure 3.5. Figure Title .....	100
Figure 3.6. Figure Title .....	101
Figure 4.1. What Were the Top Three Strategies That you Used Successfully to Adapt to the Challenges and Obstacles During the Process of Obtaining Your PhD?.....	103
Figure 4.2. Figure Title .....	103
Figure 4.3. Figure Title .....	104
Figure 4.4. Figure Title .....	104

Figure 4.5. Figure Title .....	105
Figure 5.1. Were There any Problem(s) That Almost led you to Drop out, and how Did you Overcome This Problem? .....	109
Figure 5.2. Figure Title .....	109
Figure 5.3. Figure Title .....	110
Figure 6.1. What do you Feel Prepared you the Most to Persist and Obtain Your PhD?.....	113
Figure 6.2 Figure Title .....	113
Figure 6.3. Figure Title .....	114
Figure 6.4. Figure Title .....	114
Figure 8.1. What Gave you the Self-Confidence That you Could Aspire and Achieve the Goal of Obtaining Your PhD? .....	117
Figure 8.2. Figure Title .....	117
Figure 8.3. Figure Title .....	118
Figure 8.4. Figure Title .....	118
Figure 8.6. Figure Title .....	119

## Chapter 1: Introduction

### Overview

Current scientific evidence shows continued growth in doctoral education in the United States; however, the evidence also shows attrition from terminal degree programs (PhD) is high (Falconer & Djokic, 2019; Mirick & Wladkowski, 2020). Falconer and Djokic (2019) point out that 50% of doctoral students, regardless of their field of study, do not persist to graduation. Mirick and Wladkowski (2020) found similar evidence that suggests the trend may even be higher, arguing that 40–60% of students who begin doctoral programs fail to complete them. According to Gardner (2009), this wide gap of 40–60% is due to the variation in disciplinary attrition rates. For example, in the biomedical and behavioral sciences, the attrition rate is 24%, while in the humanities and social sciences, it is 67% (Berdanier et al., 2020; Gardner, 2009). This trend has had a significant impact on underrepresented groups. In particular, historically underrepresented minority students are less likely to complete doctorate degrees, and the problem of attrition in higher education remains largely among these groups (Artiles & Matusovich, 2020; Augustine, 2020). African Americans, while the second largest minority group (United States Census Bureau, 2020) in the United States (12.1%), lead all minority groups with the lowest success rates in doctoral programs (Jordan et al., 2022). According to Yared (2016), there is a broken pipeline for African American students to navigate a pathway and obtain their PhD:

Thirty-six percent of underrepresented minority students—defined by the Council of Graduate Schools, a graduate education research organization, as African Americans, American Indians/Alaskan Natives, and Hispanics—drop out of their programs, while 20 percent have not completed their degree after seven years. (Yared, 2016, p. 1)

Empirical research evidence suggests resilience is a good predictor of the academic performance and level of persistence of students (Richards & Dixon, 2020). For the purpose of this study, resilience is defined as one's ability to adapt positively when confronted with adversity or stress (Afifi et al., 2016). Growing ethnic diversity throughout the United States also reinforces the need to increase persistence in underrepresented minority and female doctoral students for their degree attainment (Burger, 2018). The focus of this study is the attrition rate of African American doctoral students and how to improve their retention and graduation using resilience and persistence.

Chapter One focuses on an introduction to the study and the research problem. Chapter One covers the sections and discussions of an overview, the background of the study, the problem statement, and the purpose statement. In Chapter One, the significance of the study, the research questions, and the definitions will also be introduced and detailed. Chapter One will conclude with a summary.

## **Background**

### **Historical Context**

Doctoral education is on the rise throughout the United States; in fact, attrition from doctoral programs is also on the rise (Falconer & Djokic, 2019; Mirick & Wladkowski, 2020). In particular, the groups most vulnerable to dropping out of doctoral programs are historically underrepresented students and women (Artiles & Matusovich, 2020; Augustine, 2020). Jordan et al. (2022) found the group that had the lowest success rate in PhD programs were African Americans. Gipson-Jones (2017), Okahana et al. (2018), Scott and Johnson (2021), and Whitcomb and Singh (2021) also highlighted the attrition of African American doctoral students as a major concern.

Many different strategies and intervention programs have been implemented to address the high dropout rate of underrepresented students in doctoral programs. For instance, the findings of Ghazzawi et al. (2021) highlighted the important relationship between successful outcomes in technology, engineering, and mathematics (STEM) fields and the establishment of early academic preparation, particularly for underrepresented minority students. However, McGee et al. (2019) and Ghazzawi et al. (2021) provided evidence that some existing interventions and programs aimed to lower the attrition rate of underrepresented doctoral students were not effective as designed, and they unexpectedly resulted in psychological, emotional, and physical costs. For example, McGee et al. (2019) argued not wanting to be judged as “stupid” for the skin they wear; “this strain, complicated by frequent spasms of moral confusion, manifests itself into ‘a second schooling’ filled with strategies to soften the damage of being racialized as inferior” (p. 1378):

Challenges typically faced by students in introductory STEM courses can be compounded for URM and first-generation college students, who may be more likely to view early setbacks as indicative of low future potential and not ‘belonging’ at college (Yeager et al. 2016) and more negatively impacted by traditional STEM curricula and culture that can dissuade student engagement (NASEM 2016). (Ghazzawi et al., 2021, p. 14)

Evidence suggests one’s capability to manage and cope with stress is favorable to doctoral persistence (Bekova, 2021). The results of Burger (2018) advanced the understanding of doctoral student progression and contributed to the development of doctoral student persistence theoretical models. Rockinson- Szapkiw (2019) argued understanding the factors associated with attrition and persistence was critical for institutions to marshal and direct resources to promote

and encourage doctoral degree completion. Miller and Orsillo (2020) also evidenced the association between poor psychological functioning when underrepresented students are overwhelmed by racial stressors and low belongingness in doctoral programs. Miller and Orsillo (2020) further found the level of acceptance of internal experiences and values-based living impacted internal experiences such as stress, anxiety and depression more than the negative impact of racial stressors or low perceived belongingness. The results of Miller and Orsillo (2020) demonstrated psychological flexibility mitigated the impact of racial and ethnic stressors.

In response, Hazy (2019) emphasized the need for research that focused on individual characteristics, which could provide new data that positively impact the process of obtaining a doctoral degree. Crumb et al. (2020) recommended future researchers explore how underrepresented students can be supported to persist through the doctoral process at higher learning institutions. Based on the results of the study, Ghazzawi et al. (2021) recommended further research focus on intervention strategies that are implemented early in the process to ensure underrepresented students are better prepared to persist in STEM academic programs.

Furthermore, there are a limited number of studies that have explored the attrition of underrepresented doctoral students with respect to retention and graduation using resilience and persistence, especially using the sociocultural communication theory. In response to filling this problem space and addressing the research calls made by Hazy (2019), Crumb et al. (2020), and Ghazzawi et al. (2021), the focus of this study is how to improve the retention and graduation of African American doctoral students using resilience and persistence, framed by the sociocultural communication theory.

## **Social Context**

This study has social context. Williams et al. (2018) conducted a critical race analysis of the socialization experiences of African American doctoral students in higher learning institutions. The results showed their experiences of fear, distrust, and betrayal halted their development as scholars. Jordan et al. (2022) argued it was vitally important to understand what factors are creating the environment for failure or success. Callahan et al. (2018) argued if higher educational institutions were to cultivate and support doctoral students of color, student persistence in this demographic would improve, and it would create a pipeline into the professoriate for faculty of color.

Alekseev-Apraksin et al. (2019) stated, “since the culture nowadays develops within information and-network principles, the necessity to rethink the very idea of leadership as well as the functions and goals of the leader’s behavior is a current social demand” (p. 31). Choo et al. (2020) highlighted the significance of social factors, especially how isolation impacts the successful outcome of underrepresented students at the doctoral level. Artiles and Matusovich (2020) argued motivation plays a greater role in doctoral studies and that supporting motivated underrepresented students could increase the number of these students who complete and obtain their doctorate degree. Miller and Orsillo (2020) suggested that encouraging underrepresented students to embrace their personal values could limit the impact of stressors on psychological functioning. Therefore, by exploring the attrition rate of African American doctoral students and how to improve their retention and graduation using resilience and persistence, this study could help ameliorate the retention and degree completion of doctoral students with underrepresented racial and ethnic identities.

## **Theoretical Context**

The theoretical context for grounding this study is sociocultural communication theory. The relationships between external and internal processes are at the heart and foundation of sociocultural communication theory (Craig, 2006). Sociocultural communication theory focuses on creating and using mediating tools that assist in human communication processes (Bruneau, 2007).

Lev S. Vygotsky, a psychologist in Russia, is recognized as the father of sociocultural theory in cognitive development (Scott & Palincsar, 2013). Vygotsky was recognized as a talented scholar, an accomplished researcher, and a prolific writer (Allman, 2018). According to Allman (2018), Vygotsky's goal was "to create a new and comprehensive approach to human psychological processes" (p. 1). Vygotsky paid close attention to the works of his peers, including Pavlov, Piaget, Binet, and Freud, and often commented on their ideas (Allman, 2018). Vygotsky died at the early age of 37 of tuberculosis; many of his manuscripts were banned in the USSR for political reasons but were allowed to be published again in the 1960s (Allman, 2018). Vygotsky argued the "mental functioning of a person is not simply derived from social interaction; rather, the specific structures and processes revealed by individuals can be traced to their interactions with others" (Scott & Palincsar, 2013, p. 1). Vygotsky argued that culture and social factors or social interactions play a far greater role in cognitive development (Scott & Palincsar, 2013). Vygotsky theorized that as learners, we engage in a variety of external social activities that eventually are internalized and processed, and from the interaction between the external and internal information, new strategies and knowledge are formed (Scott & Palincsar, 2013).

In general, sociocultural communication theory allows researchers to gather more information on the subject of the investigation in a shorter time frame compared to a phenomenology design, which is more time consuming (Park, 2011). In addition, sociocultural communication theory addresses how the individual is being impacted by the environment. Park (2011) looked at the language children used and how they socially interacted from a sociocultural perspective. Park (2011) argued that studies have found, even at an early age, White children invariably exhibited racial bias towards African American children, “indicating that children not only have been introduced to the concept of race but also have learned to base their evaluations of people on race” (p. 388). Park (2011) argued that White children harbored negative biases of African American children despite their exposure to television programs that portrayed Black children in a positive light.

The antidotal example of Robert’s experiences cited later in the Significance section of this study seems to support Park’s (2011) findings. There was further empirical data that suggested young children actively enacted racial and ethnic identities by “constructing theories about how differences operate, making choices about whom they played and interacted with, and making sense of the multitudes of messages they received” (Park, 2011, p. 388). Park (2011) also made a salient argument when she said, “Sociocultural Theory has traditionally revolved around people interacting with one another in micro-level interactions, and less around the system of meaning and power that people build” (pp. 395–396). Park is essentially arguing that culture matters within the context of learning in environmental settings. For example, the lexicon used in Black households is not the same lexicon used in White households (Holliday & Squires, 2020).

There is a huge advantage for White students if we are to believe Vygotsky’s theory on internalization learning, which suggests we are shaped and influenced by the social environment

we are in (Smolucha & Smolucha, 2021; Fischer, 2007; Sanders & Welk, 2005). As Holliday and Squires (2020) point out, “American classrooms overwhelmingly insist on ‘Standardized English’ as the sole mode of instruction and learning, creating a system of privilege that benefits those who enter school speaking it” (p. 420). African American students have to play catch up and learn how to write and interpret the language of Whites or they are written off as uneducated and dumb (McGee & Martin, 2011; Holliday & Squires, 2020). Just reflect and digest for a minute the previously mentioned quote by Laura Ingraham regarding LeBron James: “barely intelligible” and “ungrammatical,” code for, learn how to speak the dominant culture’s language (Sullivan, 2018). The burden is never placed on teachers to culturally understand that this gap exists (Lim & Renshaw, 2001), not because the intellectual capacity is not there, but rather a mountainous burden is placed on African American students to catch up, make up the distance, and learn an unfamiliar culture’s language in a short period of time in order to compete, pass, and function. The argument being made here is that it has taken White students all their lives to live, learn, and fully grasp what is expected educationally from the dominant White culture. African American students are expected to learn this in a few short years in the educational system. Unfortunately, there are going to be many African American casualties (attrition) because White teachers are not aware of this cultural divide and will often misdiagnose the problem (Lim and Renshaw (2001).

As previously mentioned, Lim and Renshaw (2001) have argued vigorously for multicultural competencies and training for teachers in higher learning education systems. Duncan (2020) pushed further, arguing essentially that our epistemological underpinnings and practices are inappropriate and not relevant or responsive to meet the challenges of cultural

diversity in contemporary America. As Duncan (2020) points out, there is a strong argument for diversifying the pedagogy landscape in educational institutions.

Sociocultural communication theory is appropriate for studying the research problem because the theory looks at the relationship between cognition while taking the social context into account (Alekseev-Apraksin et al., 2019; Bruneau, 2007). The sociocultural communication theory is suitable for addressing the purpose of this study also because under this theory, human development is not homogenous; it is inherently different, socially, from one culture to the next (Bruneau, 2007).

Further, the sociocultural communication theory is an appropriate theoretical foundation for framing this study because the theory has been widely applied to studying phenomena in higher education. Grounded in sociocultural communication theory, Njenga (2018) identified five social cultural paradoxes, including globalization, cultural identity, westernization, authenticity, and foreign ideologies to create awareness of and elicit interventions to be applied in higher education. Using the sociocultural communication theory, Englund et al. (2018) suggested there are differences within teachers' sociocultural context that influenced change and development. Englund et al. (2018) suggested teaching practices within the classroom are influenced by culture and distinct patterns of communication. As such, Englund et al. (2018) suggested self-reflection and development of new pathways to teach and learn. Klimova et al. (2019) suggested promoting cultural awareness in learning environments should be at the forefront to improve cultural competency and sensitivity. Therefore, the sociocultural communication theory was the appropriate theoretical framework for grounding this study given its usefulness in systematically investigating cognition while considering social context (Alekseev-Apraksin et al., 2019; Bruneau, 2007), its appropriateness for studying human

development from a cultural perspective (Bruneau, 2007), and its latest applications in the context of higher education (Englund et al., 2018; Klimova et al., 2019; Njenga, 2018).

### **Philosophical Worldview**

This researcher subscribes to the pragmatism worldview. The pragmatism worldview is not committed to any particular methodology (Creswell, 2008; Creswell & Poth, 2018; O'Reilly, 2018), just the one that will answer the central research question and provide practical solutions.

The pragmatism worldview aligns best with the selected qualitative phenomenological approach to studying African American doctoral students' attrition rate. Petersen and Gencel (2013) argued the primary focus of the pragmatic paradigm is on a worldview that looks at "what works," what is going to solve the problem instead of focusing only on methods. The pragmatism worldview approach to research utilizes mixed methods and draws from both qualitative and quantitative assumptions when doing research (Caswell, 2008). Researchers that fall under the pragmatism worldview freely select methods and techniques that best align with the purpose and focus of the research (Caswell, 2008; Creswell & Poth, 2018).

For the purposes of this study, pragmatism's worldview would be concerned about what is working with African American doctoral persistence situations. Their approach is practical, and they focus on any and all approaches and methodology available to understand and solve the problem (Caswell, 2008). O'Reilly (2018) argued one of the roles of the researcher is to consider the philosophical position that is influencing their choice of methodologies. Researchers that adopt the pragmatism worldview are free to select the methods they deem best and appropriate (Creswell & Poth, 2018).

### **Problem Statement**

The problem to be addressed in this study is the high attrition rate among African American doctoral students irrespective of what time frame they decided to drop out, meaning, e.g., year one, two, five. Across all disciplines, 40–60% of students who began doctoral programs did not persist to graduation (Falconer & Djokic, 2019; Mirick & Wladkowski, 2020). African Americans represent the second largest minority group in the United States yet statistically have the lowest success rates in doctoral programs (Jordan et al., 2022). The general problem is that systemic racial discrimination and microaggression tactics not only can derail the academic success and ambitions of underrepresented minority students, but they can also negatively impact the psychological functioning of these students, including creating a sense of low belongingness (Miller & Orsillo, 2020). Howard (2017) suggested a lack of persistence to socially and academically integrate, internal factors, and external factors might be the cause of the high attrition of doctoral students. Rudd et al. (2018) indicated personal support, financial factors, student engagement, academic environment, and doctoral cohort support were also crucial requirements in the successful outcome in doctoral degree completion. The specific problem is that the impact of resilience and persistence on the retention and graduation of African American doctoral students remains unknown (Crumb et al., 2020; Ghazzawi et al., 2021; Simon, 2021).

### **Purpose Statement**

The purpose of this qualitative phenomenological study is to explore the attrition rate of African American doctoral students and how to improve their retention and graduation using resilience and persistence. The central phenomenon of the study is the high attrition rate of African American doctoral students in the United States. At this stage in the research, attrition is

defined as the number of individuals who leave a program of study before it has finished (Sheill et al., 2019; Wamser-Nanney, 2020). This study could have practical implications that may lead to positive social change.

### **Significance of the Study**

This study could advance knowledge and contribute to scholarship of higher education, adolescent development, communication theories, and sociocultural studies. Grace-Odeleye and Santiago (2019) suggested that to meet the needs of underrepresented minority students, bridge programs' effectiveness should continually be evaluated and assessed to make improvements. Hazy (2019) emphasized the need for further study on individual characteristics of doctoral persistence, which could lead to more successful pathways to obtain doctoral degrees. Crumb et al. (2020) recommended future researchers explore better ways of supporting students from economically disadvantaged backgrounds to persist academically.

Most recently, Ghazzawi et al. (2021) recommended further research focusing on preparation and intervention strategies that developed underrepresented minority students' skills set needed to succeed in STEM programs. Matthews et al. (2021) recommended understanding and intervening in the drivers of health inequalities. The results of Simon (2021) highlighted the need for continued research on reducing impostor syndrome's influence on doctoral women in STEM fields and challenged higher education institutions to make concerted efforts to address their needs.

Further, although many studies have discussed the high attrition rate of doctoral students (Scott & Johnson, 2021; Whitcomb & Singh, 2021), limited attempts have been made to explore the attrition rate of African American doctoral students and how to improve their retention and graduation using resilience and persistence, especially using the sociocultural communication

theory. This study could add to the research literature because it could provide a blueprint that offers a different approach to addressing African American doctoral students' attrition by examining successful internal and external strategies. As such, the findings of this study could benefit higher education scholars and administrators, adolescent development, communication theories, and sociocultural studies. The practical implications from this study could promote a positive social change. Jordan et al. (2022) suggested that to foster retention of underrepresented students, higher learning institutions should seek out new teaching pedagogies, encourage social bonding, and enhance mentoring opportunities. Based on the results, Azmitia et al. (2018) argued that in order for underrepresented students to realize their academic and career goals, the establishment of supportive relationships at the university level with faculty, staff, and peers is needed. Callahan et al. (2018) argued that if higher educational institutions were to cultivate and support doctoral students of color, student persistence in this demographic would improve, and it would create a pipeline into the professoriate for faculty of color.

Based on the results, Falconer and Djokic (2019) proposed practitioners take a more proactive stance to understand student retention from a psychological perspective. Alekseev-Apraksin et al. (2019) argued that there is a social demand for us to rethink what leadership is and the function and goal of the leader's behavior.

Choo et al. (2020) proposed programs and mentors provide tools for students to expand their learning opportunities and augment their research relationships in their field of study. The findings of Artiles and Matusovich (2020) suggested that to better support student motivation, clear communication between students and advisors is necessary throughout the doctoral journey. Artiles and Matusovich (2020) further argued diversity in doctorate degree completion

rate could increase if institutions rallied around supporting the motivation of underrepresented students.

Mirick and Wladkowski (2020) called for dissertation chairs and advisors to readily support pregnant and parenting doctoral students, especially in the skills building area, and further reflect on the implicit messages being communicated about these caregiving women. Miller and Orsillo (2020) argued that assisting students to consistently live within their personal value set could stave off the effects of stressors and impact how they function psychologically. Most recently, Roberts et al. (2021) proposed the use of bridge programs, such as minority-serving institutions, personalized educational programs, or stand-alone programs, might be able to improve the recruitment and retention of underrepresented students in doctoral programs.

Therefore, by exploring the attrition rate of African American doctoral students and how to improve their retention and graduation using resilience and persistence, the findings of this study could help address the high rate that African American doctoral students leave or drop out of doctoral programs. If the evidence provides a new pathway, this will have enormous policy implications by lowering the attrition rate at higher learning institutions and creating a feeder system that produces African American professionals and professoriate faculty. A decreased attrition rate and improved academic success of African American doctoral students could in turn stimulate positive social change and revive economic development in underserved communities.

## **Research Questions**

### **Central Research Question**

What are the strategies utilized by African American PhD graduates to address the high attrition rate of African American doctoral students in the United States?

### **Sub Question One**

What specific strategies build resilience on the retention and graduation of African American doctoral students in the United States?

### **Sub Question Two**

What specific strategies build persistence on the retention and graduation of African American doctoral students in the United States?

### **Definitions**

In this section, I list and define the terms pertinent to the study. All the definitions in this section are supported by the literature. All the terms in this section are listed in an alphabetical order.

- *African American* – An African American belongs to an ethnic group consisting of Americans with partial or total ancestry from any of the Black racial groups of Africa (Jordan et al., 2022).
- *Attrition* - The number of individuals who leave a program of study before it has finished (Sheill et al., 2019; Wamser-Nanney, 2020).
- *Institutional racism* - The systematic distribution of resources, power, and opportunity in the society to the benefit of people who are White and the exclusion of people of color (Solid Ground, 2019).
- *Persistence* – The ability to finish and complete a course of action regardless of impeding obstacles (Proctor et al., 2018).
- *Resilience* – One’s ability to adapt positively when confronted with adversity or stress (Afifi et al., 2016).

## Summary

Chapter One focused on an introduction to the study and the research problem. Chapter One covered the sections and discussions of an overview, the background of the study, the problem statement, and the purpose statement. In Chapter One, the significance of the study, the research questions, and the definitions were also introduced and detailed.

The problem to be addressed in this study is the high attrition rate among African American doctoral students. The purpose of this qualitative phenomenological study is to explore the attrition rate of African American doctoral students and how to improve their retention and graduation using resilience and persistence. Correspondingly, the central research question guiding this study concerns the strategies to address the high attrition rate of African American doctoral students in the United States. I developed the sub-questions to answer the impact of resilience and persistence on the retention and graduation of African American doctoral students in the United States.

The theoretical context for grounding this study is sociocultural communication theory. This study could advance knowledge and contribute to scholarship of higher education, adolescent development, communication theories, and sociocultural studies. This study could also have practical implications and promote positive social change.

## Chapter 2: Literature Review

### Overview

The purpose of this qualitative phenomenological study is to explore the attrition rate of African American doctoral students and how to improve their retention and graduation using resilience and persistence. The evidence is clear: the attrition rate from doctoral programs in the United States is high and growing (Falconer & Djokic, 2019; Mirick & Wladkowski, 2020). In particular, historically underrepresented students and women are the biggest causality with respect to getting terminal doctorate degrees, and the problem of attrition in higher education remains largely among these populations (Artiles & Matusovich, 2020; Augustine, 2020). Empirical research evidence suggests resilience is a good predictor of the academic performance and level of persistence of students (Richards & Dixon, 2020). Growing ethnic diversity throughout the United States also reinforces the need to increase persistence in underrepresented minority and female doctoral students for their degree attainment (Burger, 2018).

Reviewing the academic and professional literature will include a review of existing literature pertaining to the research problem under study and covers (a) an overview; (b) theoretical framework; (c) related literature; and (d) a summary. This literature review will cover various scholars' investigative work with respect to the purpose of this study. To expose the gap in research and build a foundation for this investigation, I searched peer-reviewed dissertations and journal articles as well as school libraries and academic databases such as ScienceDirect and SAGE journals.

Alternative search terms include: attrition, motivation, graduate students, doctoral education, minorities, retention, personality, race, PhD, minority PhD students, resilience, Tinto's attrition model, non-traditional doctoral student, equity, doctoral student,

underrepresented, doctoral student attrition, STEM, stressors, underrepresented minorities, students, African American women, African American feminist thought, STEM doctoral students, African Americans, persistence, student retention, higher education, identity development, gender, and well-being. Peer-reviewed articles will represent a significant portion of the literature sources in the Related Literature section of this study, with the majority of sources published between 2017 and 2021.

### **Related Literature**

#### **Racialized America: Culture in Higher Learning Institutions**

It is reasonable to argue that African American doctoral attrition may be a by-product of a racialized system (Museus et al., 2015; Herman, 2011), and if these institutionalized practices are not consciously eradicated, the attrition rate of African American doctoral students may continue to rise. Solid Ground (2019) defined institutional racism as “the systematic distribution of resources, power and opportunity in our society to the benefit of people who are White and the exclusion of people of color.” Gildersleeve et al. (2011) argued that there are racialized systemic practices in educational institutions that not only are emotionally and psychologically harmful, but also contribute to the possible derailment of African American doctoral students.

In one study, McGee and Martin (2011) found that during and even after African American doctoral students obtain their PhD, these students are still reminded of their inferiority with respect to mathematics and science by their teachers, bosses, and supervisors. Often, these African American students become preoccupied with disproving these racial stereotypes (McGee & Martin, 2011). McGee and Martin (2011) point to reported comments made by a professor to Black students: *“Really? Wow! I didn’t think you would be able to answer a question like that! And no one helped you? (Comment from an engineering professor directed to an African*

*American female participant*) (p. 1348). McGee and Martin (2011) referenced another report where an African American student was steered away from the hard sciences because of ingrained stereotypes: “*Yes, there is engineering . . . but you should pick a major that you are more likely* and able to graduate in (Comments directed to an African American male participant by his mathematics teacher) (p. 1348).

In support of McGee and Martin’s (2011) findings, Williams et al. (2018) found through the narratives African American doctoral students shared that fear, distrust, and betrayal halted their development as scholars. In one particular interview, a participant shared one of her encounters with a professor:

Corrine, a Black doctoral student at a prestigious predominantly White institution in the northeast, recounts how her feelings of alienation throughout doctoral study began before she was offered admission to her program. She reveals, “In several off-putting conversations with a faculty member, I was basically told me I wasn’t good enough . . . that I didn’t make the program look good.” While frank conversations about academic qualifications are certainly within the purview of program faculty members, Corrine distinctly recalls the painful undercurrent of what she perceived as insensitive and racially motivated comments about her academic abilities:

I distinctly remember feeling frozen in the chair as the White faculty member continued to speak to me about other options, sprinkling in that I was a good writer, it seemed, but wondered why I didn’t do so well on the GRE. The faculty member mentioned a desire to study students of color who do not perform well on standardized tests. At that point, I felt like a guinea pig, really . . . a spectacle. “You can get another Master’s degree,” I was told. Well, I didn’t need or want another Master’s degree, I wanted and needed [emphasis

added] a Ph.D. and I wanted someone to mentor me through the process. (Williams et al., 2018, p. 254)

African Americans have been told all their lives that this is America and that they can, just like any other Americans, pull themselves up by their bootstraps and make it, but arguably from their perspective, that is bunch of nonsense given their daily experiences and the scientific evidence that have been sited thus far in the literature. Some make it, sure, but arguably the majority of them do not. It is the greased pole effect: trying to grip and make your way up the greased pole only to slip and fall back down to the bottom. It is like running the race of life on a treadmill. You know your body is moving because you feel the sweat pouring out all over. The only thing is, you are not moving, and you look around and see you are in the same place you started from. One can only imagine the devastating effect on one's psyche. Museus et al. (2015) suggest how the effects of a racialized system may be impacting students of color.

Museus et al. (2015) believe that race is ubiquitous and permeates higher education, which can lead to incidents of racial tension at higher learning institutions. Museus et al. (2015) point to the 2013 Supreme Court case Fisher v. University of Texas, which challenged the legality of affirmative action and reinvigorated the national debate. Museus et al. (2015) further argued against the outcomes-based and performance funding policies trend that states are now starting to adopt because these policies negatively impact colleges and universities that have high concentrations of people of color, which systematically limits opportunities for minority communities.

Mann (1995) argued that institutional racism has been a part of American culture and has played a significant role propping up White elitism (separate and not equal) for over 300 years. Racial conflicts have been an on-going occurrence since the founding of America centuries ago,

including racial profiling, separate and unequal schools, unfair housing practices, unfair sentencing by the criminal justice system, Jim Crow laws in the South, and so on (Mann, 1995). African Americans are profiled and stopped by police officers in disproportionate numbers, which can lead to unfortunate outcomes. In one study, Horrace and Rohlin (2016) stated, “the odds of a black driver being stopped (relative to nonblack drivers) increase 15% in daylight compared to darkness.” Plant et al.’s (2005) computer simulation study that tested police officers’ split-second reaction to potential suspects revealed police officers tended to mistakenly shoot unarmed African Americans compared to unarmed White suspects. If video evidence was not available, many simply would not believe there is overt racism perpetrated by law enforcement. As Lee (2020) stated, “With the long history in America of violence against Black people, the ubiquity of video recordings has recast the narrative surrounding police violence and heightened public concerns about law enforcement” (p. 1).

There was a high profile 2019 Boulder, Colorado, case where an African American student on the University campus was detained with the police officer’s gun(s) drawn for picking up trash outside of his dormitory (<https://www.youtube.com/watch?v=8ne6uRvQg2U>). The police officer was later fired for escalation and illegal detainment of the student. There are other similar cases, like the 2020 case where police stormed the dorm room of an African American student at 3:00 a.m. after family says White roommates made false claim (<https://www.youtube.com/watch?v=bd9C-al54KY>), or the 2018 case where the police were called by a White student on an African American Yale student for sleeping in her dorm area due to fatigue from her studies (<https://www.youtube.com/watch?v=dXYtxnUBM9o>). Ongoing incidents like these can propel African American students to withdraw from college campuses they feel are not welcoming, or worst, hostile. However, for the purposes of this investigation,

the more interesting phenomena would be learning the practices of African American students who excelled under these psychological and social pressures and obtained their PhD.

### **Historical Perspective**

There is overwhelming consensus in the empirical literature that suggests African American doctoral attrition is a major problem (Scott & Johnson, 2021; Whitcomb & Singh, 2021; Okahana et al., 2018; Gipson-Jones, 2017; Spaulding & Rockinson-Szapkiw, 2012; Fountaine, 2012; Gildersleeve et al., 2011; Palmer et al., 2009; Herzig, 2004). Lott et al. (2009) conducted a history analysis of doctoral attrition for 10,088 doctoral students over a 20-year period in science, technology, engineering, and mathematics fields. Lott et al.'s (2009) findings suggest the odds of attrition are highest in the first year of doctoral studies and are greater for females and minorities, especially in the hard sciences. The attrition rate tends to be lower for married students and for those who have higher relative GRE scores (Lott et al., 2009). Gildersleeve et al. (2011) also argued that the graduate school experience for students of color has been oppressive and illustrates the dehumanizing cultural experience in the everyday lives of doctoral students.

The collective cultural experiences that shape the African American experience in America are inextricably tied to their educational environment. Coles and Powell (2020) stated that even under sustained assault, “Black youth have persisted despite regressive school curricula, backwards policies, and standards that devalue them” (p. 114). Far too often, African American students are made to feel they are the outside group, isolated, muted, uneducated, and invisible to other cultural groups as if they do not belong (Espinosa, 2011; Edgeworth, 2015; Baak, 2019; Ahmet, 2020). “Scholars have struggled to document how students of color navigate and negotiate oppressive and dehumanizing conditions in their daily experiences of doctoral

education,” argued Gildersleeve et al. (2011). An overwhelming amount of scientific literature (Scott & Johnson, 2021; Whitcomb & Singh, 2021; Okahana et al., 2018; Gipson-Jones, 2017; Spaulding & Rockinson-Szapkiw, 2012; Fountaine, 2012; Gildersleeve et al., 2011; Palmer et al., 2009; Herzig, 2004; Blockett et al., 2016; and Callahan et al., 2018) points to the untenable environmental culture African American doctoral students often find themselves in. Gildersleeve et al. (2011) argued this type of “socialization process has the potential to push them out of doctoral education” (p. 95).

### **Situation to Communication Tradition**

Craig (2006) argued the relationships between external and internal processes is the foundation of sociocultural communication theory. Vygotsky theorized that as learners, we engage in a variety of external social activities that eventually are internalized and processed, and from the interaction between the external and internal information, new strategies and knowledge are formed (Scott & Palincsar, 2013). Thus, sociocultural theorists could argue that the phenomenon of African American attrition is a communication problem, and from our interactions with social groups and community, we form our opinions and realities (Scott & Palincsar, 2013). Bruneau (2007) further suggested we use mediating tools to assist in human communication processes. Lim et al. (2019) further added having good department support and processes to promote student research are strategies for effective communication, including processes to provide feedback and having a basic level of trust. Mentoring, training, and accountability are mechanisms that will increase the likelihood of success (Lim et al., 2019).

Sociocultural theorists believe activities like learning are dramatically impacted by culture (Park, 2011; Scott & Palincsar, 2013). The point is that when we examine African American doctoral attrition, it must be looked at through the current American higher learning

socio-cultural construct, which is predominantly White Anglo Saxon, and any explanation of African American doctoral attrition must take into account how the behaviors and actions of African American doctoral students are altered by the dominant environment they are in (Gildersleeve et al., 2011).

The current American construct of higher learning is from a single sociocultural perspective, White Anglo Saxon. America has changed and is evolving into a multiracial society, and so too must our educational system. Craig and Richeson (2014) state, “The U.S. Census Bureau projects that racial minority groups will make up a majority of the U.S. national population in 2042, effectively creating a so-called majority-minority nation” (p. 1189). Having a minority status by the year 2042 is a real fear for many White Americans (Craig & Richeson, 2014). Spaulding (2011) skillfully argued why we are a nation of immigrants and why it is important for us to embrace multi-culturalism.

Given the fact that America was constructed on the promise of welcoming immigrants from all corners of the globe (Spaulding, 2011), there needs to be a complete transformation of America’s education system to meet the demands of the diverse socio-cultural change America’s higher learning institutions are currently experiencing. Lim and Renshaw (2001) argued that multicultural competencies should be a point of emphasis in professional development, training, higher learning education, and research issues, leading to a diversification of psychology itself. Lim and Renshaw (2001) foresaw the complex sociocultural changes and argued why higher learning institutions and society as a whole must respond and embrace this transformation appropriately.

## **Underrepresented Minority Doctoral Students**

Studies show that doctoral education is on the rise in the United States, but so is the attrition rate, which is problematic (Mirick & Wladkowski, 2020). Falconer and Djokic's (2019) study found that across all disciplines, over half (50%) of students who started a doctoral program did not persist to graduation. Mirick and Wladkowski (2020) evidenced found that 40-60% of doctoral students who enrolled and began their educational pursuit did not complete them.

Particularly focused on engineering and the factor of persistence, Artiles and Matusovich (2020) conducted a case study that looked at the experiences that motivated doctoral students compared to the experiences faculty had in mind to motivate students, especially women and historically underrepresented students. Drawing on Eccles' Expectancy Value Theory, Artiles and Matusovich's (2020) findings showed that while there is agreement between students and faculty on ability and how to stay motivated, they had differing views on the value they assigned to doctoral experiences. Specifically, Artiles and Matusovich (2020) found students focused on attainment value and faculty on utility value.

In particular, degree completion data in the United States clearly shows that historically, students of color and women fall short and do not persist through to degree completion, and the problem of attrition in higher education remains largely among these populations (Artiles & Matusovich, 2020; Augustine, 2020). Although the data suggests the enrollment rate of underrepresented minority students in higher education is on the rise in the United States, underrepresented racial/ethnic minority students are still considerably underrepresented (Miller & Orsillo, 2020).

Jordan et al. (2022) found that while African Americans are the second largest minority group in the United States, their success rate in doctoral programs compared to other groups is the lowest. In other words, the graduation rate of African American students in doctoral programs when compared to all other groups is dismal and appalling. Williams-Shakespeare et al. (2019) further suggested underrepresented racial/ethnic minority students in PhD programs are high candidates for dropout.

Choo et al. (2020) indicated underrepresented racial/ethnic minority students and women are susceptible to attrition when pursuing careers in research. This is clearly problematic for higher learning institutions, especially when there is a dearth of minority research scholars and professors in the field (Matthews et al., 2020). Matthews et al. (2020) stated, “although some progress has been made through nationally funded pipeline development programs, demographic disparities in the various health sciences disciplines remain” (p. 1). Matthews et al. (2020) further suggest that innovative interventions to help underrepresented minority faculty navigate institutional barriers must remain a national priority.

Augustine (2020) suggested the importance of examining, decoding, and understanding how underrepresented racial/ethnic minority students navigate their experiences in higher education. With respect to racially equitable admissions practices at higher learning institutions, Roberts et al. (2021) found evidence that the Graduate Record Exam (GRE) test scores correlated less to performance metrics than race and gender. In other words, race and gender were strongly correlated to test scores (Roberts et al., 2021).

Falconer and Djokic (2019) conducted a quantitative study that examined how financial status, age, and race impact academic behaviors in doctoral studies. Using the exploratory factor analysis, the study was conducted among 165 participants who attended and completed a

minimum of one semester of a doctoral program. Employing factor analyses, however, Falconer and Djokic (2019) did not find a statistical significance between financial status, age, and race impacts academic behavior.

In the STEM fields, despite an increase in underrepresented students completing their doctoral programs, there remains a significantly low rate of participation and completion amongst underrepresented minorities and females (Burger, 2018). Employing a quantitative comparative descriptive study, Burger (2018) investigated the effects of gender and ethnicity on student attrition and persistence in doctoral STEM programs at multiple institutions. The results showed that 6.5% of the sample and 5.9% of the underrepresented minority group left during stage one. Burger (2018) found 18.6% of the sample and 19.6% of the underrepresented minority group departed during stage two.

McGee et al. (2019) point out, with respect to the fields of engineering and computing, that African American doctoral students experience more stress and strain during their doctoral studies compared to their White and Asian peers. To dive deeper into McGee et al.'s (2019) study, the goal was to understand how African American students experienced these challenges and stressors. In the study, 48 African American students from various institutions were interviewed to get a picture of how they coped and managed these stressors during their doctoral studies. McGee et al. (2019) found the experiences of the participants were similar in these aspects.

Artiles and Matusovich (2020) argued that one clear area that shows promise to reduce the attrition rate of African American students is supporting their motivation. Williams-Shakespeare et al. (2018) further supported this argument and suggested that “motivation is an essential element to success, whether it is intrinsic or extrinsic” (p. 1818). The evidence suggests

that if schools found out what factors are motivating African American students and found ways to support them, more than likely, there would be an increase in the doctorate degree completion rate (Artiles & Matusovich, 2020). Mirick and Wladkowski (2020) called for dissertation chairs and advisors to play a more prominent role supporting doctoral students, especially parents and pregnant students, in addition to reflecting on the knowledge and message garnered from caregiving parents.

### **Current State of the Field**

Current research evidence suggest there are multiple factors that may be impacting the attrition rate of African American doctoral students, including marginalization, disconnection, stress, time management, and internal and external factors (Blockett et al., 2016; Cardona, 2013; Rudd et al., 2018; Gildersleeve et al., 2011; West et al., 2011; McMillan, 2016; Kemp et al., 2016); Aeon & Aguinis, 2017; Martinez et al., 2013; Ivankova & Stick, 2007; Pfund et al., 2016; Terrell, 2002; Berg, 2016; McCallum, 2020). Blockett et al. (2016) argued that doctoral students of color are marginalized in three key areas of socialization: faculty mentorship, professional involvement, and environmental support. Researchers have found a higher dropout rate among Latino and African American doctoral students (Cardona, 2013; Howard, 2017). Cardona suggests a lack of persistence to socially and academically integrate as well as other internal and external factors may be the cause of this failure.

There is also some cursory evidence that suggests personal support, financial factors, student engagement and academic environment, and doctoral cohort support may also be crucial requirements in the successful outcome in doctoral degree completion (Cardona, 2013). Howard (2017) argued that the literature on African American students' retention strategies in academia have been well investigated. One of these factors is economics. Economics plays a central role in

doctoral persistence. The evidence suggests students will drop out of doctoral programs if they have to self-finance their education and cannot find other financial means to support their PhD ambitions (Rudd et al., 2018; Williams-Shakespeare et al., 2018).

For example, consider the economic burden placed on African American doctoral students who come from poor, underserved communities and have to finance their research dissertation out of their own pockets (Munsey, 2009; Howard, 2017; Patterson-Stephens et al., 2017). Munsey (2009) argued many graduate students must apply for dissertation research grants in order to conduct their research, and without these funds, they will not be able to complete their research, and thus not graduate. Howard (2017) argued low-income African American students who fail to identify sufficient funding sources will essentially drop out of school and become part of the attrition statistics. Rudd et al. (2018) found that students that had fellowships or research assistantships were two times more likely to complete their degrees. Blockett et al. (2016) also suggested if higher educational institutions were to cultivate and support doctoral students of color, student persistence in this demographic would not only improve, it would also create a pipeline into the professoriate for faculty of color. In order to bring the doctoral attrition rate down, universities will have to do a better job providing more financial support for doctoral candidates.

In addition, having the support of family is also key regardless of whether they have been through the higher education process. Family support is crucial to a doctoral candidate's success in completing their doctoral degree. McMillan (2016) points out that "most students experience the transition from school to university as challenging. Students from backgrounds with little or no experience of higher education are most vulnerable in the transition, and most at risk of academic failure or early departure." McMillan's (2016) study suggests positive social

relationships and emotional support, which students have access to during the transition of the first academic year, are crucial to a successful outcome. Howard (2017) further added, “Black students who are successful in doctoral programs predominantly come from prominent families or are supported by a number of mentors and special resources. In other words, they largely do not do it on their own” (p. 521).

### **Challenges and Barriers**

Azmitia et al. (2018) suggest students who come from families that have not attended college have different cultural values and goals when compared to students who have a long line of college graduates. As they navigate college, first-generation college students coordinate their values and goals and seek out the support of their families, friends, and communities (Azmitia et al., 2018). Azmitia et al. (2018) further addressed the transition process first-generation college students often have to navigate to overcome their challenges. The findings suggest first-generation college students who persisted had support from their families, friends, and communities (Azmitia et al., 2018).

Williams-Shakespeare et al. (2018) spoke about challenges minority and international women face in order to persist through doctoral studies. Williams-Shakespeare et al. (2018) referenced *inter-personal hardiness* as an important factor for these women to persist through to graduation:

In our context studies suggest that as minority, international, married women, we are less likely to complete doctoral studies (Castro et al., 2011). Our separation from family in some contexts, financial challenges, limited support, family and other responsibilities could be considered as adverse realities that we face, with each reality having the potential to cause significant stress which is further compounded when combined. We

therefore coined the term “Inter-personal hardiness” to represent the resilience evident in our mutual associations and how we encourage and support each other to forge ahead irrespective of the challenges we are individually and collectively experiencing. Thus, resilience resulting from the relations between persons is our definition of “interpersonal hardiness.” Interpersonal Hardiness is therefore, our mechanism to combat adversities as we strive to successfully complete our course of study. Overtime, we have become our own support network in defiance of failure. (Williams-Shakespeare et al., 2018, p. 1817)

Choo et al. (2020) identified other challenges like a lack of role models, isolation, work-life balance, or trying to juggle several different priorities, all factors impacting underrepresented minority students. Miller and Orsillo (2020) approached the topic from a systemic perspective and suggested underrepresented minority students experience various forms of discrimination, including feeling like they do not belong or microaggression tactics, which may negatively impact and undermine the academic success of these students.

Matthews et al. (2020) argued for innovative interventions to help underrepresented minority faculty navigate institutional barriers. In addition, Matthews et al. (2020) stated that “the social sciences literature related to ‘extra-academic’ (e.g., racism) barriers to URM persistence in higher education suggests the limitations of efforts exclusively focused on cognitively mediated endpoints” (p. 1). Roberts et al. (2021) suggested underrepresented minorities are impeded by systemic financial barriers, which disproportionately affect underrepresented applicants.

Simon (2021) investigated how African American women’s experiences in STEM were being impacted by impostor syndrome. Using Collins’s (2006) *African American Feminist Thought* (BFT) to collect and analyze data to understand the participants’ doctoral journey, the

results showed race and gender regularly intersected to shape how the participants experienced impostor syndrome during their doctoral journey. Simon (2021) found participants with low or moderate impostor feelings had positive experiences while those who had frequent or intense impostor feelings had a more tumultuous academic journey.

### ***Disconnection***

Gildersleeve et al. (2011) suggested Black doctoral students have a reason to feel socially and emotionally disconnected and that the “racialized social narrative that exists reveals the harmful institutional and systemic factors contributing to the possible derailment of Latina/o and African American doctoral students.” Gildersleeve et al. (2011) further argued that the culture of doctoral education can be dehumanizing and marginalizing for Latina and African American doctoral students. Feelings of loneliness and alienation, especially with distance-learning doctoral students, are other key factors that contribute to a lack of doctoral persistence (McMillan, 2016). Studies have found feelings of loneliness and alienation can be combated by having students play a more active role engaging peers and staff in their academic studies (Breitenbach, 2019; McMillan, 2016; Gardner, 2009). In Patterson-Stephens et al.’s (2017) study, they found that when African American women doctoral students cannot find the support at the school they attend, they will go outside of the institution and seek support from outside groups such as African American faculty, sorority and church members.

### ***Managing Stress***

There are numerous studies that show that how you manage and cope with stress is strongly correlated to doctoral persistence (West et al., 2011; Bekova, 2021). West et al. (2011) suggest students who figured out how to get and integrate institutional and peer support play a major role in program completion and degree attainment. Other important and effective coping

strategies include mentoring, maintaining a strong student-advisor relationship with a professor, and becoming a junior colleague, which often leads to a more supportive departmental climate (West et al., 2011). In addition, socially integrating in any academic institution is a laudable goal. Social integration plays an even greater role when it comes to doctoral students. McMillan (2016) suggested networking with peers and staff in university departments helps reduce stress when students are confronted with academic challenges or self-doubt to complete their doctoral degrees.

Miller and Orsillo (2020) investigated racial stressors among underrepresented racial/ethnic graduate students, such as having feelings of belongingness and acceptance at higher learning institutions. Miller and Orsillo's (2020) investigation sampled 436 underrepresented minority doctoral students. Miller and Orsillo (2020) invited the participants to complete "the Schedule of Racist Events, Racial and Ethnic Microaggressions Scale, Campus Connectedness Scale, Valued Living Questionnaire, Philadelphia Mindfulness Scale, and the Depression, Anxiety, and Stress Scales" (p. 197). The results showed a positive association between racial and ethnic microaggression stressors and psychological distress. This essentially means racial and ethnic stressors put an enormous amount of pressure and stress on underrepresented racial/ethnic graduate students (Miller and Orsillo, 2020).

Employing three hierarchical regression analyses, Miller and Orsillo (2020) stated that "both acceptance of internal experiences and values-based living predicted psychological functioning, such as depression, anxiety, and stress, over and above the negative effects of racial and ethnic stressors and low perceived belongingness" (p. 197). Miller and Orsillo (2020) found further evidence that suggests minority students who had poor psychological functioning are associated with experiencing racial and ethnic stressors and low perceived belongingness. The

results of Miller and Orsillo (2020) demonstrated that psychological flexibility mitigated the impact of racial and ethnic stressors. Miller and Orsillo (2020) argued that getting minority students to cultivate, embrace and accept their own personal values could serve as a buffer against stressors on poor psychological functioning.

### ***Time Management***

Time management is essential to how we organize, plan, and divide our time between specific activities that have to be done (Aeon & Aguinis, 2017; Stiles, 2003). Good time management can lead to critical outcomes such as well-being, job performance, and the quality of the work produced (Aeon & Aguinis, 2017). Martinez et al. (2013) suggest students who showed doctoral persistence shared a few common traits. They managed their time and priorities well, they found positive ways to relieve their stress, they found ways to maintain their physical and mental health, they found ways to carve out personal time for themselves, they sought out support from friends, family, and their institutions, and they made tradeoffs whenever possible that worked for them.

### ***Internal Factors***

Ivankova & Stick (2007) also found that internal factors such as self-motivation and drive are key factors that must be considered as contributors to doctoral persistence. Cardona (2013) also suggested a lack of doctoral persistence to socially and academically integrate as well as other internal and external factors may be the cause of this failure (Hunter & Devine, 2016; Kemp et al., 2014; Ceglie, 2019). Studies have also found personal attributes are positively associated with doctoral persistence. Pfund et al. (2016) suggest personal attributes directly play a role in doctoral persistence. For example, a student that tends to procrastinate and puts things off that need immediate attention or a student who does not proactively speak up and advocate

for themselves most likely will not fare well in a doctoral level program (Terrell, 2002). Personal attributes are the things that make us unique and may point to why some students are able to grind through the rigorous process of graduate studies and come out on the other side with a degree. Kemp et al. (2014) suggested that universities should offer potential doctoral candidates workshops to ferret out their motives for doctoral studies before they embark on their doctoral journey. Kemp et al. (2014) and Matheka et al. (2020) also suggest motivation is key with respect to persistence in doctoral pursuit.

Kemp et al. (2014) argued that motivation is a key component in the success of students completing their doctorates, especially when they are transitioning to become independent researchers. Kemp et al.'s (2014) argument suggests the level or the degree to which a student is motivated, is a central determinant of whether the student completes their dissertation and obtains their PhD. Kemp et al. (2014) went further to suggest less motivated students will produce lesser quality dissertations.

### ***Self-Efficacy***

Albert Bandura (1994) was the first to bring prominence to the role of self-efficacy in goal achievement. Self-efficacy is the belief in one's capacity to execute behaviors necessary to produce specific performance attainments (Bandura, 1977, 1986, 1997; Ma & Tschirhart, 2021). Bandura (1994) argued that people with high self-efficacy have an unflinching belief in themselves to perform and execute the actions necessary to achieve the goals and objectives they seek to attain. Bandura (1994) suggests people's self-efficacy is developed by four main sources of influence: mastery, modeling, social persuasion, and reducing people's stress reactions. (1) With mastery, achieving a successful outcome in the execution of an event will strengthen one's belief in one's personal efficacy (Bandura, 1994). In other words, success breeds success, which

builds confidence in one's ability; (2) modeling, according to Bandura (1994), can influence others vicariously. In other words, one's self efficacy can be positively influenced through the observation of social models like oneself. It is to be noted that social models that are perceived as different from one's self may have little to no influence (Bandura, 1994), which speaks to the importance of having a more diverse pool of professors and researchers at higher learning institutions to meet the growing demand of a diverse student body; (3) social persuasion is a more uplifting source of influence that capitalizes on building up one's belief in one's self (Bandura, 1994), in other words, making the individual feel they possess the capability to accomplish anything he or she desires. These individuals will work hard to achieve their goals and build their self-efficacy; (4) finally, according to Bandura (1994), reducing people's stress reactions is an important influence in self-efficacy. How one perceives an event will impact how one reacts to that stressor. Bandura (1994) argued that two people can view the same event, and one will see it as an insurmountable stressor while the other sees it as a welcome challenge to overcome. In addition, Ma and Tschirhart (2021) argued that just having the perception of advancing towards accomplishing goals and getting good feedback from people seen as good role models will significantly boost self-efficacy performance.

### ***Mentorship: Faculty-Student Relationship***

Berg's (2016) study looked at the impact of effective mentorship between students and faculty on doctoral degree completion. Researchers have suggested effective mentor-mentee matching should be at the top of the list along with being aware of and sensitive to the challenges for underrepresented minority students in doctoral programs (Brill, 2014; Berg, 2016; and Williams et al., 2018). McCallum (2020) argued the importance of the faculty-student relationship. McCallum's (2020) findings suggest the faculty-student relationship must take

center stage, especially with African American students. Far too many African American students do not feel they have quality relationships with faculty, especially at predominantly White institutions they attend (McCallum, 2020). McCallum (2020) believes not having positive relationships with faculty can lead to these students feeling like they do not fit and feeling unwelcome, which can result in students dropping out before attaining their degrees.

Patterson-Stephens et al. (2017), however, cited a study of “9,000 doctoral students indicating that 30% of students did not have their preferred mentor. In fact, research shows that students of color are more likely to experience difficulties with identifying and sustaining mentoring relationships” (p. 160). This suggests pairing students with the right mentors is not happening in higher learning institutions, which is concerning at best.

### ***Institutional Factors***

In a mixed method study, Ivankova and Stick (2007) found five quantitative factors that were predictors of students’ persistence: online learning environment, student support service, faculty, and self- motivation. In the qualitative portion of Ivankova and Stick’s (2007) mixed method study, they found four overarching themes that were predictors of students’ persistence: quality of academic experiences, online learning environment, support and assistance, and student self-motivation. Social integration plays an even greater role when it comes to doctoral students. McMillan (2016) suggested networking with peers and staff in university departments helps reduce stress when students are confronted with academic challenges or self-doubt to complete their doctoral degrees. Feelings of loneliness and alienation, especially with distance-learning doctoral students, are other key factors that contribute to a lack of doctoral persistence (McMillan, 2016). Feelings of loneliness and alienation can be combated by having students play a more active role engaging peers and staff in their academic studies.

### *Existing Interventions*

To seek out appropriate intervention strategies that could increase the number of underrepresented minority groups that successfully graduate from PhD programs, Jordan et al. (2022) examined how we can learn from an historical perspective and address the racial and ethnic disparity in United States doctoral programs. Using Vygotsky's Social Development theoretical framework (1978) as an instrument to develop and shape the interview questions and Colaizzi's (1978) method for data analysis, Jordan et al. (2022) found higher learning institutions must make a conscious effort to commit to diversity, inclusion, equity, and justice. Employing a longitudinal trio-ethnography design study, Williams-Shakespeare et al.'s (2019) study explored the experiences of international women in a doctoral program. The findings showed interpersonal hardiness was an important factor that could ensure a successful outcome.

Baumgartner and Schneider (2021) examined stress-related academic performance and persistence in university students. The study was conducted among 29 students, and the results showed students pre- and post-intervention, students reported stressor appraisals and academic persistence. Baumgartner and Schneider (2021) also obtained students' semester GPA and enrollment for analysis, and the results showed academic persistence decreased in the control group, while there was no variation by group on academic stressor appraisals.

Ghazzawi et al. (2021) investigated the impact and outcomes of STEM intervention programs designed to boost the academic preparedness and successful outcomes of underrepresented minority students. In particular, they studied whether STEM intervention programs could positively impact first-generation underrepresented minority college students with respect to persistence and obtaining a terminal degree. Using discrete-time competing risk analysis, Ghazzawi et al. (2021) found a positive correlation for success when underrepresented

minority college students participate in intervention programs compared to students who do not. In other words, the probability of underrepresented minority college students dropping out of STEM programs is extremely high when they do not participate in intervention programs. Ghazzawi et al. (2021) also showed that underrepresented minority college students who participated in STEM intervention programs had a higher graduation rate than non-participants of the program.

The results of Baumgartner and Schneider (2021) suggested mindfulness-based stress reduction was protective against depleted academic persistence. The results of Roberts et al. (2021) suggested higher learning institutions need to make structural changes in their admissions policies, including diversifying admissions committees, looking at how applications are scored, and removing hard limits on course-on-course requirements in order to bring equity to their admissions process.

The primary goal of summer bridge programs is to reach and recruit at-risk underrepresented minority students that have potential and provide them with the opportunity to take college-level courses over the summer months before entering their freshman year of college in the fall (Grace-Odeleye & Santiago, 2019). Summer bridge programs have increased in popularity in underrepresented communities because of their effectiveness in preparing underrepresented minority students with the knowledge and skills necessary to be successful at the college level (Grace-Odeleye & Santiago, 2019). Grace-Odeleye and Santiago (2019) caution that there is also conflicting evidence that calls into question the effectiveness of summer bridge programs with respect to student retention, academic performance, and persistence.

Jordan et al. (2022) questioned the glaring shortage of African Americans in geography departments in the United States and argued for renewed *moral commitment* to recruit and enroll

underrepresented minorities in doctoral programs. The results of Choo et al. (2020) highlighted social factors, especially underrepresented minority students who feel isolated. Ghazzawi et al. (2021) highlighted the importance of early academic intervention and preparation to boost successful outcomes of racial/ethnic students at the university level.

Based on the results, Jordan et al. (2022) argued that in order to boost retention, higher learning institutions should diversify their student body and tenured faculty so they are more reflective of the racial and ethnic diversity of the United States. Azmitia et al. (2018) suggested students can successfully attain their life and career goals by seeking out supportive relationships from university faculty, staff, and peers. Falconer and Djokic (2019) highlighted the importance of educators taking a proactive stance when it comes to understanding student retention with respect to reducing psychology and social impact on doctoral students.

To maximize learning opportunities, Choo et al. (2020) proposed programs and mentors provide tools for students that could enhance their research capabilities. The findings of Artiles and Matusovich (2020) argued for the establishment of a clear communication process between both advisors and students to enhance students' motivation during the pursuit of their doctoral degree. Roberts et al. (2021) proposed bridge intervention programs in any form, whether established by an institution or personal individualized program, are necessary for the recruitment and retention of underrepresented students at the university level. The results of Simon (2021) highlighted the need for continued research on reducing impostor syndrome's influence on doctoral women in STEM fields but also challenged higher education institutions to make concerted efforts to address their needs.

Grace-Odeleye and Santiago (2019) recommended using existing and potential evaluation methods in future assessments of bridge programs as a continual programmatic

revision to meet the needs of the participating students. Based on the results of the study, Ghazzawi et al. (2021) recommended early intervention strategies be implemented to ensure underrepresented students are prepared and have the skills necessary to compete and succeed in the STEM field of study.

### **Resilience**

There is empirical data that suggests resilience is a good predictor of students' performance and their level of persistence (Tross, Harper, Osher, & Kneidinger, 2000). Afifi et al. (2016) defined resilience as "the ability to adapt positively when confronted with adversity or stress" (p. 663). Afifi et al. (2016) further stated, "this adaptation process can sometimes result in thriving, where people broaden their perspective, learn something positive, develop new coping skills, or expand their social relationships as a result of a stressful experience" (p. 663).

Richards and Dixon (2020) argued resilience is not stagnant, but rather should be nurtured and supported with guidance, resources, and early intervention strategies that bolster resilience and the outcomes we desire. To extend Richards and Dixon's argument, this would suggest universities should be taking a more aggressive stance to create more pro-resilient settings that support African American doctoral persistence. This could mean identifying struggling students early and steering them towards appropriate resources to get them back on track and/or providing them access to culturally sensitive professors who are aware of environmental factors that may be impacting students of color (Gildersleeve et al., 2011). As Gildersleeve et al. (2011) puts it, "scholars must do a better job at understanding the experiences of African American and Latina/o doctoral students, particularly those that might contribute to or hinder these students' persistence and graduation" (p. 93).

Buikstra et al. (2010) found environmental and economic factors in addition to infrastructure and support services that enhance resilience. Buikstra et al. (2010) suggested there are several key components of resilience, which include “social networks and support, positive outlook, learning, early experience, environment and lifestyle, infrastructure and support services, sense of purpose, diverse and innovative economy, embracing differences, beliefs, and leadership” (p. 975).

Employing a causal comparative study, Hazy (2019) examined if there was any significant difference between the grit and resilience scores of two groups of non-traditional doctoral students. Grounded in Tinto’s Theory of Student Retention, Grit Theory, and Resilience Theory, Hazy (2019) compared “the self-reported scores of these constructs from students who have reached the dissertation-phase of their degree program to those who were in the first year” (p. 1). The results revealed no significant differences for either grit or resilience.

Employing both one-on-one interviews and focus groups in the transcendental phenomenological study, McGee et al. (2019) found securing mental or physical health ran secondary to African American graduate students’ main focus of getting better training and employment that led to a good career.

The results of Hazy (2019) found, with respect to underrepresented non-traditional doctoral students pursuing PhD degrees, the evidence did not show grit or resilience playing a clear role in retention or attrition. Baumgartner and Schneider’s (2021) study suggests resilience can emanate from using mindfulness-based stress-reduction strategies.

McGee et al. (2019) suggested the focus and sacrifice of PhD students might have assisted in securing their PhD degrees, but with everything that is meaningful and desirable in life, there is a toll and price to pay. McGee et al. (2019) points to physical and

emotional/psychological costs that come with obtaining a PhD, especially for underrepresented minority students.

### **Social Networks and Support**

Ozbay et al. (2007) defined social support as “support accessible to an individual through social ties to other individuals, groups, and the larger community” (p. 37), while the National Cancer Institute’s Dictionary of Cancer Terms defines social support as “a network of family, friends, neighbors, and community members that is available in times of need to give psychological, physical, and financial help” (p. 37). Ozbay et al. (2007) suggest there are two important aspects of social support: (1) a structural dimension, which pertains to how large one’s social network is and how frequently one engages in communication with its members, and (2) an emotional dimension, where one engages on a deeper level (such as receiving love and empathy) and gets practical help such as gifts of money or assistance from the social network. Buikstra et al. (2010) argued that having a solid social support network is key and was a critical resilience factor across all six interview groups in their study. Ozbay et al. (2007) also articulated the importance of having a robust social support network in place to ensure one’s physical and psychological well-being.

### **Positive Outlook**

Having a positive outlook is an important ingredient in resiliency (Ozbay et al., 2007). Students who have a positive outlook while under stressful situations seem to have mastered the practice from their own personal family crises (Black & Lobo, 2008). According to Black and Lobo (2008), when families are under stress, it is seen as an opportunity to not only adapt and rebound, but also as an opportunity for growth out of adversity. This kind of optimistic confidence is why Black and Lobo (2008) believe some African American doctoral students

successfully overcome stresses associated with graduate studies and obtain their PhD. Torregosa et al. (2016) further suggest that just the perception of a professor being compassionate and having a positive outlook can have an enhancing effect on performance. Students are not the only ones that benefit from having a positive outlook.

### **Learning and Early Experience**

Learning from our past stressful experiences and taking that knowledge and applying it to a new stressful environment as a way of coping, adapting, and remaining resilient is key (American Psychological Association, 2020). Resilient people tend to believe their internal locus of control and self-proven actionable steps will help them overcome the stressful events before them (Herrman et al., 2011). In addition, these people tend to have good problem-solving skills and are able to identify strategic solution(s) needed to navigate safely around a problem to get the outcome they want. For example, take the illustration offered by the American Psychological Association (2020).

Imagine you're going to take a raft trip down a river. Along with slow water and shallows, your map shows that you will encounter unavoidable rapids and turns. How would you make sure you can safely cross the rough waters and handle any unexpected problems that come from the challenge? Perhaps you would enlist the support of more experienced rafters as you plan your route or rely on the companionship of trusted friends along the way. Maybe you would pack an extra life jacket or consider using a stronger raft. With the right tools and supports in place, one thing is sure: You will not only make it through the challenges of your river adventure. You will also emerge a more confident and courageous rafter. (American Psychological Association, 2020, p. 1)

It is anticipated that the African American doctoral students that were able to persist and remain resilient most likely had these adaptive skills set in place to survive the various stressors they encountered throughout their doctoral experiences. For students who do not have good resilient skills set in place, McAllister and McKinnon (2009) found supporting evidence to suggest resilient qualities can be taught or adopted. McAllister and McKinnon (2009) further argued that “resilience theory should be part of the educational content and taught in a way that promotes reflection and application in order to give students strength, focus and endurance in the workplace” (p. 371). Having experience early in life on how to deal with stressful conditions may be beneficial in learning to cope and transferring those coping skills later in life to current problems (Buikstra et al., 2010). An example of this would be that a grieving child who has lost a parent may develop better coping resilient skills as compared to a child who did not (Buikstra et al., 2010).

### **Environment and Lifestyle**

An often overlooked area of resilience is the aesthetic appeal of the environment in which we spend our everyday life. Buikstra et al. (2010) found that across all groups, the importance of having an aesthetically appealing environment was at the forefront because it contributed to feelings of well-being. Having an aesthetically appealing environment can create community pride and feelings of inclusion (Buikstra et al., 2010). For example, Keleg et al. (2021) examined the interrelation between the character of the landscape, aesthetic experience, and the socio-cultural identity of communities in the context of sustainable landscape transformation. Keleg et al. (2021) stated, “understanding the dynamics of these interrelations can lead the way for better insights into resilience and sustainable practices in urban settings” (p. 1). The important takeaway from Keleg et al. (2021) is the importance of having an educational and inclusive

aesthetic environment that is reflective of the demographic makeup of its student body. Klimova et al. (2019) further suggested promoting cultural awareness in learning environments should be at the forefront to improve cultural competency and sensitivity. In addition, Lim and Renshaw (2001) argued for teachers to be more multiculturally competent in higher learning education systems. Liikanen's (2019) findings argued that culturally and linguistically diverse students are often faced with learning environment challenges, including isolation, which can limit learning opportunities. Duncan (2020) suggested the teaching practices are inappropriate and not relevant or responsive to meet the challenges of cultural diversity in contemporary America.

The current American higher learning socio-cultural construct is predominantly White. It is a fact that America is becoming more culturally diverse and that our current educational systems and practices are not reflective of this current trend (Craig & Richeson, 2014). Craig and Richeson (2014) further state, "The U.S. Census Bureau projects that racial minority groups will make up a majority of the U.S. national population in 2042, effectively creating a so-called majority-minority nation." As Duncan (2020) points out, there is a need for diversifying the pedagogy landscape in educational institutions.

### **Infrastructure and Support Services**

Buikstra et al. (2010) suggest the availability of a support system for African American doctoral students will be a necessary component if they are to remain resilient and persist throughout their graduate studies. According to Chester et al. (2021), transforming higher learning institutions' educational "infrastructure is necessary to ensure that core systems keep pace with a changing world" (p. 1). Chester et al. (2021) further added that resilience theory can help infrastructure managers navigate increasing complexity. Teach.com (2021) emphasized several key infrastructure areas educational institutions can improve to assist African American

doctoral students, which include improved mentoring, identity focus, and restructuring employment. Teach.com (2021) argued that mentoring is a critical element of the doctoral process, especially for people of color in light of their high attrition rate. African American female doctoral students seem to be the most vocal and expressive of their disappointment in the level of support they receive at their respective schools (Teach.com, 2021; Patterson-Stephens et al., 2017; Duncan, 2020).

Ethnic and gender identity also play an important role in the minds of minority students, and building new infrastructure pathways to remedy this issue may be a good start (Teach.com, 2021). Finally, creating a new recruitment infrastructure that includes hiring African American professors can go a long way in creating different mentoring options for African American doctoral students (Teach.com, 2021).

### **Sense of Purpose**

Being driven by a sense of purpose has been found to be a key factor in resilience theory. According to Buikstra et al. (2010), possessing and relying on a sense of purpose during a time of crisis is particularly important. Hamby et al. (2020) investigated highly victimized youth and found that “many strengths were associated with lower trauma symptoms for youth, with a sense of purpose showing the most promise” (p. 376). Hamby et al. (2020) suggested that increasing students’ sense of purpose will be beneficial to prevention and intervention programs.

### **Diverse and Innovative Economy**

Buikstra et al. (2010) suggest that diversifying and having a number of support structures in place in the event that one fails is a prudent way of staying resilient. Being reliant on a single support structure to get through difficult situations most likely will negatively impact one’s ability to remain resilient (Buikstra et al., 2010). For example, Biggs et al. (2015) suggest

farmers plant a variety of crops in anticipation that if one fails, there are other options to carry the day and avoid total collapse of their food source. Essentially, having a back-up plan in the event one's first support structure fails means there will be other support options to turn to (Biggs, 2015). According to Graid (2018), Stockholm Resilience Center, "redundancy provides 'insurance' within a system by allowing some components to compensate for the loss or failure of others. Redundancy is even more valuable if the components providing the redundancy also react differently to change and disturbance (response diversity)" (p. 1).

The lesson here is, it would behoove African American doctoral students to diversify their supportive environments so that if one structure does not adequately address the problem area, perhaps the other support structure(s) will. A good example of this is that if a student had financial difficulty and two of their financial supportive structures (personal savings, parental financial support) failed, meaning they had no other means of meeting his/her financial obligations, anticipating this could occur and applying for private grants in advance is a way diversifying his/her options.

### **Embracing Differences**

Embracing cultural diversity has been shown to contribute to resilience (Buikstra et al., 2010). Giving students of color, who traditionally look different from the people in power, a voice and embracing their differences should be seen as an opportunity to promote cultural growth, tolerance, and learning (Gildersleeve et al., 2011; Williams et al., 2018; Duncan, 2020). Ely and Thomas (2020) argued that there is a critical need for establishing a more diversified workforce to keep pace with changing demographics at all organizational levels. The problem is that many businesses and institutions may not be eager to adopt and advocate for changing the status quo of the organizational culture (Ely & Thomas, 2020). Ely and Thomas (2020) further

point out, “increasing diversity does not, by itself, increase effectiveness; what matters is how an organization harnesses diversity, and whether it’s willing to reshape its power structure” (p. 117).

What Ely and Thomas (2020) are arguing here with respect to “power structure” is changing organizational norms. For example, let us say there are implicit rules or norms that govern organizational culture that allow White men to speak assertively, yet penalize women and African American men for doing the same. What Ely and Thomas (2020) are saying is women and African American men who violate these organizational norms run the risk of being marginalized, thus diminishing their chances for career advancement. Unless these organizational norms are challenged and changed to embrace diversity and inclusion, marginalized groups will continually be silenced (Ely & Thomas, 2020).

### **Beliefs**

Believing in oneself is an important factor in being resilient (Buikstra et al., 2010). Research has shown having confidence can help one navigate and overcome hardships and bounce back into form (Mohan & Verma, 2020). Mohan and Verma (2020) point out that students who have and rely on their own self-created strategies tend to believe in themselves more than students who do not. Elements of self-regulated learning include “knowing what to do, how to do and when to do” when dealing with a stressful problem or issue (Mohan & Verma, 2020, p. 31). As Buikstra et al. (2010) argued, resilience and confidence will not deter fear or disappointment when things do not work out as planned. What resilience and confidence do is give us hope that we will overcome (Buikstra et al., 2010).

Research has shown the correlation between self-confidence and motivation is strong (Bénabou & Tirole, 2002). People who are self-confident and believe in themselves tend to be

highly motivated, which undoubtedly would serve African American doctoral students well who have this as a trait during the pursuit of their PhD (Bénabou & Tirole, 2002).

## **Leadership**

Having good leadership skills is a resilient and important trait to have during times of adversity (Buikstra et al., 2010). Kohlrieser et al. (2014) went further and stated, “It is often forgotten that one must learn to lead oneself before being able to lead others successfully” (p. 1). A good example of a public figures who has shown the combination of leadership and resiliency in action is Nelson Mandela:

A stunning example of resilience is Nelson Mandela. He was sent to prison as a young firebrand who believed in taking up violent means of resistance when the justice system failed. Twenty-seven years later, he came out advocating peace and reconciliation.

During his long confinement, Mandela mastered the art of self-leadership. He took great inspiration in the poem “Invictus,” written by William Ernest Henley, which ends with the verses “I am the master of my fate / I am the captain of my soul.” (Kohlrieser et al., 2014, p. 1)

Neck and Houghton (2006) defined self-leadership as “a process through which individuals control their own behavior, influencing and leading themselves through the use of specific sets of behavioral and cognitive strategies” (p. 270). Self-leadership is a self-guided ability to lead oneself to achieve personal goals and objectives (Neck & Houghton, 2006). Students who believe in themselves, who know what they want and understand the steps they need to take to get there, are demonstrating self-leadership and most likely will achieve success (Kohlrieser et al., 2014).

Alekseev-Apraksin et al. (2019) suggested that adopting new communication strategies to develop and improve social relations plays a transformative role in leadership. Alekseev-Apraksin et al. (2019) suggested current social demand challenges us to rethink what leadership is and what the behavioral actions, goals, and function of a leader look like.

### **Persistence**

Growing ethnic diversity throughout the United States reinforces the need to increase underrepresented minority and female doctoral student enrollment, persistence, and degree attainment in STEM fields of study (Burger, 2018). Understanding the factors associated with attrition and persistence is critical in order for institutions to marshal and direct resources to promote and encourage doctoral degree completion (Rockinson-Szapkiw, 2019). Internal and external factors do play an important role in doctoral persistence. Williams-Shakespeare et al. (2018) referenced inter-personal hardiness, an ability to call on one's internal resources to combat adversities, as an important factor in women persisting through to graduation.

Hunter and Devine (2016) found external resources such as good departmental level and advisor support to be salient factors in reducing emotional fatigue and a desire to drop out. Hunter and Devine (2016) also found that emotional exhaustion was positively related to doctoral students' dropping out and leaving school. Berg (2016) found effective mentor-mentee matching should be at the top of the list and being aware and sensitive of the particular challenges for underrepresented students in doctoral programs (Kent et al., 2020).

Family also plays an important role in doctoral persistence because most doctoral students are over the age of 30 and have children (Rockinson-Szapkiw, 2019). According to Rockinson-Szapkiw (2019), "family is a consistent factor identified in doctoral persistence and attrition" (p. 238). There is evidence to suggest that doctoral studies, if not managed properly,

can lead to the breakup (divorce) of families (Rockinson-Szapkiw, 2019). Rockinson-Szapkiw (2019) argued there has to be a balance between academic and family life. “Unfortunately, the sustained stress from the lack of balance is a reason many doctoral students change their aspirations and choose not to persist” (Rockinson-Szapkiw, 2019, p. 240).

There are common behavioral practices that can lead to persistence. Successful African American doctoral students who attained their PhD often collaborated with peers to discuss course content, involved themselves in undergraduate research programs, and became participatory members of student organizations and undergraduate research programs (Espinosa, 2011). This finding suggests being fully engaged and having a sense of inclusion are important factors in reaching one’s goals.

Burger (2018) investigated the statistically significant differences between ethnicities of underrepresented minority doctoral students and persistence in STEM doctoral programs from 1999-2015. Using aggregated archived data of 26,667 doctoral students obtained from four institutions located in three geographical areas across the United States, Burger (2018) conducted independent *t* tests to identify patterns and trends of attrition, persistence, and progression amongst gender and ethnicity/race of doctoral students enrolled in STEM. The results revealed completion rates of African Americans increased 43.3%, while completion rates of Hispanics increased by 22.5%. Moreover, 61.7% of African Americans and 55.6% of Hispanics who enrolled between 1999 and 2008 completed the initial program of enrollment (Burger, 2018).

Using qualitative research, Mirick and Wladkowski (2020) examined the important attributions that allowed female doctoral students to persist through to graduation after a pregnancy and/or birth. Mirick and Wladkowski (2020) found female doctoral students attributed their persistence to determination, discipline, and the ability to shift resources when necessary to

meet the challenges of the day. These students also attributed their persistence to serendipity, timing, and support from family and friends (Mirick & Wladkowski, 2020).

Choo et al. (2020) surveyed the program directors at Building Interdisciplinary Research Careers in Women's Health (BIRCWH). Choo et al. (2020) particularly focused on the factors that drove scholar success at the doctoral level at higher institutions. The results showed that having strong mentoring relationships and having a passion for research are important factors in achieving scholarly success.

Crumb et al. (2020) performed a qualitative phenomenological study that examined the educational experiences and factors that influenced persistence of African American women doctoral students at predominantly White institutions. Crumb et al.'s (2020) results showed factors that affect students' persistence included relying on a strong academy support system, taking pride in their own working-class virtues, and development of self-efficacy and resiliency.

The results of Burger (2018) suggested most doctoral students enrolled in STEM programs successfully navigated the transition and adjustments during the first 12 months of the doctoral programs. The results of Choo et al. (2020) suggested persistence and resilience were two of the elements of scholar success, with others being developing community, networks, and other support opportunities. Synthesizing the findings from the social sciences, Matthews et al. (2021) highlighted the findings and changes necessary to increase underrepresented minorities' success in higher education, which includes making significant changes to the student-teacher mentorship model, increasing engagement with research, becoming more inclusive, addressing student isolation, and higher learning institutions having the willingness to make institutional change.

The results of Burger (2018) advanced the understanding of doctoral student progression and contributed to the development of doctoral student persistence theoretical models. Hazy (2019) argued for more studies that focused on individual characteristics that could lead to a successful outcome in pursuit of a doctoral degree. Crumb et al. (2020) recommended future researchers explore how underrepresented minority students from historically disadvantaged backgrounds can be better supported to achieve academic persistence.

### **Summary**

The theoretical framework for grounding this study is sociocultural communication theory. The sociocultural communication theory was selected for this study in light of its usefulness in systematically investigating cognition while considering social context (Alekseev-Apraksin et al., 2019; Bruneau, 2007), its appropriateness for studying human development from a cultural perspective (Bruneau, 2007), and its latest applications in the context of higher education (Englund et al., 2018; Klimova et al., 2019; Njenga, 2018).

A detailed review of the current literature pertaining to the research problem under study led to the primary themes of (a) racialized America: culture in higher learning institutions; (b) historical perspective; (c) underrepresented minority doctoral students; (d) current state of the field; (e) existing interventions; (f) resilience, and (g) persistence. In exploring the historical and current literature on these topics, sub-topics and sub-themes were also presented and synthesized. There is evidence to suggest attrition from doctoral programs is trending upwards simultaneously as doctoral education grows in the United States (Falconer & Djokic, 2019; Mirick & Wladkowski, 2020). Unfortunately, underrepresented students and women are the ones who are the first to drop out and less likely to complete their doctorate degrees, and the problem of

attrition in higher education remains largely among these populations (Artiles & Matusovich, 2020; Augustine, 2020).

Bandura (1994) argued that people with high self-efficacy are able take the necessary actions to achieve their goals and objectives. Evidence suggests there is a close correlation between persistence and the ability to manage and cope with stress (Bekova, 2021). Miller and Orsillo (2020) further found evidence that suggests poor psychological functioning in minority students is associated with racial stressors, feelings of isolation, and a low sense of belongingness in graduate school. The results of Miller and Orsillo (2020) demonstrated psychological flexibility mitigated the impact of racial and ethnic stressors.

Current literature indicates different interventions and programs have been implemented to remedy the high attrition rate of underrepresented students. Hill (2018) argued that understanding the circumstances that either pave the road to a successful outcome or fail to increase the number of practicing African Americans students is crucial to appropriately addressing the problem. McGee et al. (2019) argued the focus and sacrifice of PhD students might have helped them complete their degrees; however, the findings of McGee et al. (2019) suggested these strategies all come at a cost emotionally, psychologically, and physically.

The results of Choo et al. (2020) highlighted that inclusion and addressing student isolation in graduate programs are important to minoritized scholars and their success. The findings of Ghazzawi et al. (2021) demonstrated the need for early intervention of underrepresented students enrolled in STEM programs. Roberts et al. (2021) argued for different scoring methods that measured personality traits but recognized it would be hard to implement such measures during the admissions process.

Growing ethnic diversity throughout the United States reinforces the need to increase persistence in underrepresented minority and female doctoral students for their degree attainment (Burger, 2018). The results of Burger (2018) advanced the understanding of doctoral student progression and contributed to the development of doctoral student persistence theoretical models. Rockinson-Szapkiw (2019) argued understanding the factors associated with attrition and persistence was critical for institutions to marshal and direct resources to promote and encourage doctoral degree completion.

Researchers that have investigated the attrition of doctoral students, particularly underrepresented minority students, have made practical implications. Social climate, racial and ethnic diversity of faculty, mentoring, and teaching pedagogies are all important areas to focus on with respect to retention (Jordan et al., 2022). Supportive relationships from peers, staff, and faculty can also steer students towards the attainment of their career ambitions (Azmitia et al., 2018). Callahan et al. (2018) argued if higher education institutions were to cultivate and support doctoral students of color, student persistence in this demographic would improve, and it would create a pipeline into the professoriate for faculty of color. Based on the results, Falconer and Djokic (2019) recommended higher education leaders and practitioners be more proactive in attempting to understand the psychological perspective of students and how it impacts retention, with respect to doctoral students. Alekseev-Apraksin et al. (2019) suggested that currently, there is a social demand to rethink and gain new insight on what leadership behavior and function look like.

Choo et al. (2020) took it a step further and suggested higher learning institutions and mentors should provide and steer students towards tools that maximize learning opportunities and expand their research relationships. The findings of Artiles and Matusovich (2020) focused

on the student-teacher relationship and suggested both advisors and students prioritize and establish clear communication lines to enhance student motivation in the doctoral degree process. Artiles and Matusovich (2020) argued one way to increase the diversity in doctorate degree completion rates is finding ways to identify and support the things that seemingly motivate underrepresented students. Mirick and Wladkowski (2020) called for dissertation chairs and advisors to make a more concerted effort to help doctoral students who are pregnant and need support. Mirick and Wladkowski (2020) also suggested dissertation chairs and advisors should reflect on the implicit message that comes with being caregiving women who are doctoral students. Miller and Orsillo (2020) argued that encouraging underrepresented students to embrace their personal cultural values may help insulate them from stressors and boost their psychological functioning. Roberts et al. (2021) recommended the use of bridge programs to tackle attrition of underrepresented students, while putting in place support infrastructure to enhance persistence and resiliency.

There is a tremendous number of studies that talk about the high attrition rate of doctoral students (Scott & Johnson, 2021; Whitcomb & Singh, 2021). There is a dearth of research data that points to why the attrition rate for African American doctoral students is higher when compared to any other racial groups. Some studies, in general, have identified having a close teacher-student supportive relationship in doctoral programs is positively related to doctoral persistence (Berg, 2016; Fountaine, 2012; Jones et al., 2013). However, scientific literature that studies African American doctoral students who are resilient and able to persist and successfully navigate and obtain a doctoral degree is limited and sparse at best. Current available research data has stagnated and has not provided any meaningful direction on how to solve the problem of lowering the attrition rate of African American doctoral students. It is with eager anticipation

that this investigation will provide meaningful data that will provide positive steps on how to move forward to solve the unacceptable rate at which African American students leave or drop out of doctoral programs.

Researchers that have investigated the attrition of minority doctoral students have also called for future research efforts to fill the problem space. Grace-Odeleye and Santiago (2019) recommended using current evaluation methods to assess the effectiveness of bridge programs' ability to meet the needs of underrepresented students. Hazy (2019) emphasized the need to study individual characteristics and their positive impact on pursuing a doctoral degree.

Crumb et al. (2020) recommended future researchers explore how economically disadvantaged students' academic persistence could be supported. Based on the results of the study, Ghazzawi et al. (2021) recommended further research exploring early intervention strategies that prepared underrepresented students by giving them the tools to succeed in STEM programs. Matthews et al. (2021) recommended understanding and intervening the drivers of health inequalities. The results of Simon (2021) highlighted the need for continued research on reducing impostor syndrome's influence on doctoral women in STEM fields but challenged higher education institutions to make concerted efforts to address their needs.

Further, after a comprehensive review of the literature, very little is known on how to increase the retention of African American doctoral students through resilience and persistence, especially using the sociocultural communication theory. As such, this study could advance knowledge and enrich the literature. The findings of this study could benefit researchers and scholars in the fields of higher education, adolescent development, communication theories, and sociocultural studies.

## Chapter 3: Methodology

### Overview

The purpose of this study is to provide recommendations to higher learning institutions on new strategies to lower the attrition rate of African American doctoral students. The research design that will be used during the course of this study is semi-structured interviews. Semi-structured interviews have grown in popularity as a favored method of research in the social sciences, because they allow for new ideas from the interviewee to rise to the surface where the interviewer can follow up with additional questions (Butrina et al., 2020; Lie et al., 2019; Jennings, 2005). Semi-structured interviews are also less formal and format-favorable to more interaction between researcher and participants (Butrina et al., 2020; Jennings, 2005). This study will interview 26 African American doctoral students who successfully obtained their PhD. The communication methods will include recorded Zoom interviews. Interview time will be approximately 25-30 minutes in length.

A semi-structured interview is a qualitative design that allows the researcher to gain valuable and new insightful information provided by the interviewee (Butrina et al., 2020; Jennings, 2005). The semi-structured interview design will be challenging because it will require extensive data collection from potential interviewees to capture the essence and findings of this research (Butrina et al., 2020; Jennings, 2005). Another key element will be getting buy-ins from the culture-sharing group (African American doctoral students). African American students often feel they live on an island by themselves, isolated and invisible from other cultural groups who live on the mainland. Students of color feel their skin color makes them highly visible, yet they feel invisible because they do not get a sense of inclusion or do not have a sense of belonging (Edgeworth, 2015; Baak, 2019; Ahmet, 2020). Thus, getting African American

doctoral students to let their guards down and share their graduate experiences will be challenging. Being that I am a member of this culture-sharing group, it is anticipated that African American doctoral students may be less fearful and more open to sharing their true feelings and experiences.

### **Research Design**

The study will be a qualitative phenomenological study. Qualitative examination is appropriate for this study as the study seeks to explain the phenomenon of African American PhD students persevering to finish their degree through in-depth interviews, rather than through numerical data (Sundler et al., 2019). The goal of this qualitative phenomenological study is to gather thick data on this phenomenon (Sundler et al., 2019) and the lived experiences of African American PhD students (Flick, 2019). The design of this study will be phenomenology. The phenomenological research tradition seeks to analyze and understand how participants are experiencing a particular phenomenon (Sundler et al., 2019).

Other designs were considered from this research and ultimately rejected. An ethnographic approach was not selected because it requires ethnographers to immerse themselves to study the phenomena and observe and explore the emerging themes (Flick, 2019). Furthermore, Flick (2019) argued the ethnographer is more interested in what is observed rather than in trying to explain a particular phenomenon. In this study, I will not take an immersive approach to understanding the phenomenon. A narrative approach was rejected because its main focus is weaving together a sequence of events as opposed to examining a specific phenomenon (Flick, 2019). This is inappropriate as I intend to understand a specific phenomenon in this study. Grounded theory was also explored, which focuses on systematically observing and collecting data to develop a theory (Sundler et al., 2019). This stands contrary to the goal of this study,

whose primary focus is to examine the lived experiences of African American PhD students within the context of this phenomenon rather than systematically observing and collecting data.

### **Research Questions**

To ensure that this investigation is in sync, it is important to tie the problem, research questions, and the methods used to achieve the results together. As I have previously mentioned, numerous studies have identified the growing problem of Black doctoral attrition (Scott & Johnson, 2021; Whitcomb & Singh, 2021; Okahana et al., 2018; Gipson-Jones, 2017; Spaulding & Rockinson-Szapkiw, 2012; Fountaine, 2012; Gildersleeve et al., 2011; Palmer et al., 2009; Herzig, 2004). The research question is directly linked to the problem and is designed to ask, “What strategies or practices were instrumental to their (former African American doctoral students) success in doctoral programs?” The semi-structured interview methodology selected is uniquely qualified to answer this question and provide a personal insight into the minds of sub-Afrocentric cultural groups (African American doctoral students) who are distrustful of an educational system that seemingly tilts away from equality and justice. The following research question will guide this research:

**RQ.** What are the strategies utilized by African American PhD graduates to address the high attrition rate of African American doctoral students in the United States?

### **Setting and Participants Site**

Research participants will be selected from Userinterviews ([userinterview.com](https://userinterview.com)), a research hub that pairs research participants with research investigators in pursuit of scientific knowledge. Therefore, the setting for this research will be [userinterview.com](https://userinterview.com). Prior to beginning this study, I received permission to use [userinterview.com](https://userinterview.com)'s platform from the site managers.

## **Participants**

The participants in this study will consist of 26 African American doctoral students (13 males, 13 females) that have demonstrated persistence and completed the rigors of their doctoral studies to obtain their PhD. Only participants over 18 that were African American that have obtained a doctoral degree were selected for this study. The first attempt of data collection will be interviewing African American doctoral students who have successfully navigated the doctoral experience and achieved their PhD. According to Gill et al. (2008), the purpose of conducting interviews is to provide deeper insights into the beliefs, experiences, and motivations of the research subjects in their cultural environments. These close and personal insights will provide a narrative account of what is taking place in the minds of the research participants and how they interact within their cultural environment.

## **Research Positionality/Interpretive Framework**

This study will be grounded in Lev Vygotsky's (1896-1934) social constructivist-interpretive paradigm framework (Vygotsky, 1978). Constructivism is a research paradigm arguing that objective reality is a phantom (Elliott et al., 2000), "asserting instead that realities are social constructions of the mind, and that there exist as many such constructions as there are individuals although many constructions will be shared" (Guba & Lincoln, 1989, p. 43).

## **Philosophical Assumptions**

The constructivist worldview argues humans create and construct their own realities, and knowledge is the subjective experiences of the learner (Elliott et al., 2000). It argues that meaning changes and grows as individuals interact with the world (Creswell, 2014). In this way, there can be many different approaches to constructing knowledge, and different conclusions may be drawn by different individuals. Knowledge is constructed rather than discovered

(Creswell, 2014). When applied directly to this study, each participant in the study will have constructed their own meaning around the experience of completing or working towards this PhD. The researcher will carefully document and analyze each meaning described by the participants and how they conceptualize their experiences. This perspective shaped the design by leading me to plan on conducting individual semi-structured interviews with each participant to capture their unique experiences. The assumption that each individual will have a unique perspective is grounded in constructivism. This also assumes that I will have their own unique perspective. However, I will set aside my pre-ordained opinions in order to be led by the collected data and research participants.

### **Researcher's Role**

As in most cases of qualitative research, the lead data collection personnel in this study will be me, the researcher (Hopkins et al., 2017). For the purposes of this study, a semi-structured interview protocol that I designed will be used to collect the data. I will also analyze and present the data. I will set aside all biases prior to beginning data collection to ensure they do not bias the results.

### **Procedures**

#### **Permissions**

In order to receive permission to conduct the study using User Interview's platform, I had to provide User Interviews information about this study. This included the participants to be recruited and purpose of the study. Approval to move forward with the study was provided by the site moderators.

## **Recruitment Plan**

Participants in this study will be recruited through User Interviews. I will provide User Interviews with the necessary qualification to participate in the study. The site will then connect me with qualified participants. I will contact the participants recommended by the site until 26 participants have completed the semi-structured interviews or until data saturation has been reached.

## **Data Collection Plan**

In qualitative research, the selection of research subjects is purposeful in that they can best answer the research questions and provide useful information on the phenomena being investigated (Sargeant, 2012). Research participants were selected from User Interviews. Thus, this semi-structured interview study will select 26 African American doctoral students that have demonstrated persistence and completed the rigors of their doctoral studies to obtain their PhD. In order to maintain free and open discussion of research participants, I will maintain their privacy throughout the study. The results from this study, hopefully, will provide useful information on how to reverse or reduce the attrition rate of Black doctoral students by providing a blueprint of how successful African American doctoral students were able to persist and remain resilient under adversarial conditions. Research participants will be interviewed individually by way of Zoom, FaceTime, or telephone to provide their own account of how they adapted to their education environment and precisely what steps they believe made them resilient and allowed them to persist throughout the program. The interviews will be recorded, transcribed, collected, coded for emerging themes, and analyzed. Interviews of the research participants will end when saturation is achieved (O'Reilly & Parker, 2013), meaning when the same answers to the questions posed to the research participants are occurring repetitively (O'Reilly & Parker, 2013).

The raw interview data will be tabulated and presented in tables in the results section of this study.

This study will use semi-structured interview design to interview subjects in an attempt to understand how African American doctoral students maintained resilience and persisted through the process of obtaining their PhD at their higher learning institutions. This would provide valuable insight to understand what intrinsic or external factors are contributing to the successful completion of African American doctoral students obtaining their PhD. This study will use the construct validity to determine if the interview questions are addressing the research questions and use external validity to see how well the study's findings relate to other groups (Granola, Grad School, and Goffman, 2014). The general consensus among social scientists is that studies should be designed to ensure results are reliable and valid (Goetz & LeCompte, 1982). Reliability refers to whether researchers can replicate a study's findings (Goetz & LeCompte, 1982). Essentially, what this means is researchers using the same methods can get similar results. Validity refers to the accuracy with which research can describe the event or phenomena it purports to describe (Goetz & LeCompte, 1982). Granola, Grad School, and Goffman (2014) described two variations of validity, construct and external. Construct validity tries to determine whether the instrument being used is measuring what it is assumed to be measuring, while external validity wants to know whether the conclusions made by the researcher's observations relate to other groups (Granola, Grad School, and Goffman, 2014).

### **Data Synthesis**

The collected data will be organized around the goal of the study and research questions. This will assist in organizing the data so the results can be effectively analyzed. The following four data organizational steps will be taken to analyze the collected data.

1. Make a full and thorough review of the collected data.
2. Organize comments into various categories that are gleaned from the data.
3. Color code the identifiable themes that have emerged after analyzing the data.
4. Identify patterns and association in social relationships emerging from the themes.

Finally, I will interpret and present the results from the organized collected data through the lens of the goals of the study and research questions. Data analysis procedures involve reviewing the notes and data collected from recorded interview transcripts, surveys, and digital artifacts. All of the data collected will be coded and organized into themes. Gonzales et al. (2015) argued that open coding is a key component of the research process because it allows the investigator to identify hierarchical themes and categories that surfaced during the review of the interview transcript. For the purpose of this investigation, open coding will be used to see what categories and themes emerge, with special attention given to themes surrounding navigating social environment, overt racism, and administration support. Emerging themes will be identified and color coded. The data will be represented with tables and charts. Choosing the right charts and graphs is a growing area of interest for researchers in the data visualization space because of its ability to visually put a face on a problem and allows the viewer to emotionally connect to it (Groen et al., 2012; Laubheimer, 2017; Interaction Design Foundation, 2018). Recommendations will be made on how to reduce the attrition rate of African American doctoral students and on areas that will need further investigation.

### **Trustworthiness**

Korstjens and Moser (2018) argued the importance of designing solid research procedures to maintain objectivity and reliability. Merriam and Tisdell (2015) argued the

importance of trustworthiness because in qualitative research there are no metrics to rely on, only the credibility, reliability, and confirmability of the findings.

### **Credibility**

Credibility refers to the actual truthfulness of the data or how accurately the method used measures what it is intended to measure (Amrein-Beardsley & Geiger, 2020). This study will use the construct validity to determine if the survey instrument or interview questions are actually addressing the research questions and use external validity to see how well the study's findings relate to other groups (Granola, Grad School, & Goffman, 2014). There are several validation strategies used by researchers (Creswell & Miller, 2000). For the purposes of this investigation, the study will employ the following two validation strategies, clarifying and member checking, which are outlined below by Creswell & Miller:

#### **1) Clarifying.**

The researcher's bias from the outset of the study is important so that the reader understands the researcher's position and any biases or assumptions that impact the inquiry (Merriam, 1988). In this clarification, the researcher comments on past experiences, biases, prejudices, and orientations that have likely shaped the interpretation and approach to the study.

#### **2) Member checking.**

The researcher solicits participants' views of the credibility of the findings and interpretations

(Ely et al., 1991; Erlandson et al., 1993; Glesne & Peshkin, 1992; Lincoln & Guba, 1985; Merriam, 1988; Miles & Huberman, 1994).

Technique is considered to be “the most critical technique for establishing credibility -

This approach, writ large in most qualitative studies,

-involves taking data,

-analyses,

-interpretations, and

-conclusions back to the participants so that they can judge the accuracy and credibility of

the account. According to Stake (1995), participants should “play a major role directing

as well as acting in case study” research. They should be asked to examine rough drafts

of the researcher’s work and to provide alternative language, “critical observations or

interpretations” (p. 115). For this validation strategy, I convene a focus group composed

of participants in my study and ask them to reflect on the accuracy of the account. I do

not take back to participants my transcripts or the raw data but take them my preliminary

analyses consisting of description of themes. I am interested in their views of these

written analyses as well as what was missing (Creswell & Miller, 2000, p. 1).

### **Transferability**

Transferability simply means the generalizability of the study results (Hopkins et al.,

2017). In qualitative studies, the transferability of the study is curtailed because of the small

number of participants. Transferability will be increased in this study by collecting a sufficient

sample size. This will be accomplished by collecting data until data saturation is reached. I will

further increase the transferability of the study by collecting rich data that contains thick

descriptions (Hopkins et al., 2017). By doing this, I will increase the total amount of data that is

informed by the study (Hopkins et al., 2017).

**Dependability**

According to Hopkins et al. (2017), studies' dependability issues should be tackled up front so the findings are not misleading or untrue. Dependability is threatened in qualitative research with bias entering into the data collection or analysis process. I will ensure dependability by transcribing participant interviews verbatim and by asking each participant to review their transcripts upon completion in a process called member checking. This will ensure that the data is not accidentally misrepresented by the participant or the researcher. Since the participant can clarify their remarks after the fact, member checking can help ensure that participants believe the statements accurately represent their experiences.

**Confirmability**

Confirming the findings of a study is what is referred to as confirmability (Hopkins et al., 2017). Confirmability is threatened when the study deviates from the established methodology or when the participant sample is not fully described (Hopkins et al., 2017). In this study, data will then be coded by identifying meaning units. After initial coding, I will review the codes and transcripts, refining codes as the data required and ensuring that coding drift does not occur. As my understanding of the themes and codes emerge from the data, coding drift may occur and will need to be corrected for. Coding drift refers to the phenomenon where a code might mean something different at the beginning of coding than it did at the end of coding (Hopkins et al., 2017). By adjusting the codes as necessary, the researcher ensures the codes remain consistent throughout coding and that another researcher can replicate the coding process; this in turn establishes confirmability. I will further ensure confirmability by carefully following the study methods they have outlined for the study and will make note of any necessary deviations from the study plan.

## Ethical Considerations

Social media is undoubtedly the new frontier for social scientists to conduct research, but with this come enormous ethical challenges (Bender et al., 2017). Bender et al. (2017) argued social scientists must come together and sort out the appropriate ethical issues and procedural solutions surrounding online health research recruitment that protects participants' rights and safety. The most problematic ethical challenge of online research is its vulnerability to be easily hacked and compromise sensitive data (Bender et al., 2017). Privacy and confidentiality must be priority number one with respect to research participants' information. To be more specific, ethical concerns voiced by research ethics boards involved the vulnerability of social media recruitment messages. Research ethics boards argued, "individuals may unknowingly add personal and sensitive health information to their online profile, leaving an identifiable trail that may be used and disclosed by marketers" (Bender et al., 2017, p. 3). Bender et al. (2017) suggest that ultimately the ethical questions that research ethics boards want social scientific researchers to solve are, (1) figuring out, if there are privacy breaches, what are the implications and how will participants be informed about the breaches? and (2) what protection mechanism is in place to deal with inadvertent breaches that compromises research participants' information? Reassuring online participants that their privacy and confidential information is secured and protected may lessen their anxiety and increase the likelihood of participation in the research study (Nass et al., 2009). Nass et al. (2009) added, "without some assurance of privacy, people may be reluctant to provide candid and complete disclosures of sensitive information even to their physicians" (p. 77).

As scientific research investigators, we have a duty to collect, store, manage, and safeguard research participants' confidential information, which includes data storage and

electronic devices where information is stored (Ryerson University Research Ethics Board, 2017). Ryerson University Research Ethics Board (2017) suggests there are important steps the research investigator can take to ensure the proper safeguarding of research participants' private information, which include (1) Physical safeguards that ensure unauthorized personnel do not have access to the physical location where private and sensitive information is stored, (2) Administrative safeguards, which ensure and delineate who specifically has access to the collected data and participants' privacy information, and (3) Technical safeguards, which include taking electronic steps to safeguard the private information of research participants by putting in place firewalls, encryption, and computer passwords measures.

I will take the following steps to inform research participants of how their confidentiality, privacy, and personal information will be stored, managed, and protected throughout the investigation and thereafter.

(1) **Informed Consent:** All research participants will be informed that while the research staff will carry out and maintain their privacy and confidentiality, we cannot guarantee or ensure that focus group participants will do the same, but they will be asked to be respectful of the privacy and confidentiality of all participants in the focus group (Ryerson University Research Ethics Board, 2017).

(2) **Physical Safeguards:** Focus group participants and staff will be instructed to conduct interviews and focus group discussions in private secured rooms away from the public to maintain privacy and confidentiality (Ryerson University Research Ethics Board, 2017).

(3) **Administrative Safeguards:** Only research staff who have signed confidentiality requirements that are directly associated with the study will be able to access participants' data (Ryerson University Research Ethics Board, 2017).

(4) **Technical Safeguards:** Technical measures will be deployed to protect participants' privacy, which include computer passwords and encryption measures to safeguard the electronic data associated with the study (Ryerson University Research Ethics Board, 2017).

(5) **Confidentiality Breach:** In the event participants' information is breached, the Chair of the Research Ethics Board will be contacted immediately and informed of the details of the confidentiality breach (Ryerson University Research Ethics Board, 2017).

### Summary

The purpose of this study is to provide recommendations to higher learning institutions on new strategies to lower the attrition rate of African American doctoral students. The study will be a qualitative phenomenological study. Research participants were selected from User Interviews (userinterview.com), a research hub that pairs research participants with research investigators in pursuit of scientific knowledge. Therefore, the setting for this research will be userinterview.com. Participants in this study will be recruited through User Interviews. The participants in this study will consist of 26 African American doctoral students that have demonstrated persistence and completed the rigors of their doctoral studies to obtain their PhD. This study will be grounded in Lev Vygotsky's (1896-1934) social constructivist-interpretive paradigm framework (Vygotsky, 1978). Data will be analyzed by organizing comments into various categories that are gleaned from the data and identifying patterns and associations in social relationships emerging from the themes. I will keep all data strictly confidential. In conclusion, the findings and result from this study should offer answers to the research questions on African American doctoral resilience and persistence as well as new areas of research where new exploratory investigation will be needed.

## **Chapter 4: Results**

### **Overview**

As was noted in Chapter Two, the theoretical framework for grounding this study is sociocultural communication theory. The sociocultural communication theory was selected for this study in light of its usefulness in systematically investigating cognition while considering social context (Alekseev-Apraksin et al., 2019; Bruneau, 2007), its appropriateness for studying human development from a cultural perspective (Bruneau, 2007), and its latest applications in the context of higher education (Englund et al., 2018; Klimova et al., 2019; Njenga, 2018).

The problem being addressed in this study is the high attrition rate among African American doctoral students. A qualitative phenomenological design was used to explore the attrition rate of African American doctoral students and how to improve their retention and graduation using resilience and persistence. Correspondingly, the central research question guiding this study is identifying the strategies utilized by African American doctoral students who successfully navigated this difficult terrain to achieve and earn their Phd. Sub-questions were developed to answer the impact of resilience and persistence on the retention and graduation of African American doctoral students in the United States. This chapter will include participant descriptions, interview protocol, data analysis, narrative themes, tables presented by theme, trustworthiness of the data, and research question responses.

### **Participant Descriptions**

Research participants were recruited through User Interviews to participate in this study. The original goal was to interview 26 (13 male and 13 female) former African American doctoral students who successfully navigated the doctoral journey and obtained their PhD. The study attracted far more female participants, 20, while attracting only seven male participants for

a total of 27 participants. Gender differences were not addressed because it was not the focus of this research. These participants attend colleges and universities in various regions of the United States and work in various fields such as school administration, teaching, engineering, business, etc. Pseudonyms were used to protect the confidentiality of participants and locations. No comparisons were made between online and residential students.

### **Interview Protocol**

A semi-structured interview protocol was implemented for this study. The interview questions were rooted in and developed from review of the literature on African American doctoral students' attrition pertaining to resilience and persistence in higher learning institutions (Jordan et al., 2022; Artiles & Matusovich, 2020; Augustine, 2020; Falconer & Djokic, 2019; Mirick & Wladkowski, 2020; Crumb et al., 2020; Ghazzawi et al., 2021; Simon, 2021; Rockinson-Szapkiw, 2019; Williams-Shakespeare et al., 2018; Afifi et al., 2016; Richards & Dixon, 2020; Baumgartner & Schneider (2021). Interview questions were left open-ended, which allowed for follow-up questions to dive deeper and unearth more data when deemed appropriate. Interviews were conducted using Zoom technology and ran approximately 30–45 minutes.

An African American interviewer was selected with the hopes that African American participants would be more readily open to honestly sharing their perceptions and experiences with someone from their own culture. To safeguard against potential interviewer bias, the interviewer frequently revisited the audio recordings to ensure that there were no leading questions nor interview-interviewer drift (Carey & Gelaude, 2007).

### **Clarifying and Member Checking**

In the interest of full disclosure, it is to be noted that the investigator of this study is of African American descent, and with this come inherent biases like past experiences, prejudices, and orientations that may shape the interpretation of the data.

Although audio transcriptions have come under heavy scrutiny, considerable efforts were made to ensure the audio-recorded interviews were transcribed verbatim and the audio was listened to and compared to the text to ensure accuracy of the transcription (McMullin, 2021). Furthermore, to ensure that the data is dependable and transcribed accurately, upon completion of participants' interviews, transcripts of the interview were sent to each participant to member check and validate the accuracy of the data and ensure it is reflective of what was said.

### **Coding**

According to Yi (2018), "Codes in qualitative research are as important as numbers in a quantitative study." Yi (2018) further argued that coding is what brings order and organization to messy data and makes it quantifiable. After thoroughly reviewing the data, codes were assigned to specific text that suggested the same meaning. The same codes were applied as more of the same text surfaced in the data.

### **Narrative Themes**

Themes were identified by the number of times certain responses manifested across participants. Responses that surfaced a minimum of four or more times were identified and labeled as themes (Morgan, 2017). Specific themes emerged with respect to strategies used by African Americans to successfully obtain their PhD degree.

## **Research Question**

The problem the central research question is designed to answer is determining what strategies successful African American doctoral students utilized to avoid being part of the attrition statistics plaguing higher learning institutions. It is anticipated that understanding the lived experiences of these African American doctoral students and choices they made in pursuit of the graduate degree may unveil nuggets that are useful for future students to navigate their own doctoral journeys. This study also probed deeper with sub-questions designed to answer what specific strategies these successful African American doctoral students used to build their *resilience and persistence*.

## **Data Analysis and Findings**

As was previously mentioned, eight interview questions were rooted in and developed from review of the literature on African American doctoral students' attrition pertaining to resilience and persistence in higher learning institutions (Jordan et al., 2022; Artiles & Matusovich, 2020; Augustine, 2020; Falconer & Djokic, 2019; Mirick & Wladkowski, 2020; Crumb et al., 2020; Ghazzawi et al., 2021; Simon, 2021; Rockinson-Szapkiw, 2019; Williams-Shakespeare et al., 2018; Afifi et al., 2016; Richards & Dixon, 2020; Baumgartner & Schneider (2021). The statistics highlighted in tables 1.1, 1.2, and 1.3 are representative of individual participants responding to each question.

### **1. What Problems did you Face Throughout the Process of Obtaining Your PhD?**

This study desired to understand the problems impacting African American students' retention at higher education institutions and the strategies they employed to successfully navigate and obtain their PhD. Strategies refers to the action(s) they took to achieve their overall goal. Five major themes emerged with respect to how research participants dealt with problems

that surfaced during their doctoral studies at their respective colleges and universities: time management, financial cost, inadequate student/mentor match, lack of diversity, and racism/micro-aggression.

**Table 1.1**

*Problems Confronting Participants*

Problems confronting participants	Number of Participants citing this as a problem	Percentage
Time Management	18	66%
Financial cost	10	37%
Inadequate Student/ Mentor match	10	37%
Lack of Diversity	4	14%
Prevalence of Racism/ Micro-aggression	3	11%

Sixty-six percent (66%) of participants identified time management as one of the major problems that they encountered; financial cost and inadequate student/mentor match were tied and came in a distant second (37%); a lack of diversity came in third (14%); and prevalence of racism/micro-aggression came in fourth (11%). Themes identified above are illustrated below with quotes from participants' interviews:

“It was a challenge trying to make it all work. You want to be present for your family. You want to have some sort of social life. So just juggling everything.” AJ-9

“This particular professor, I don’t feel had a lot of experience working with people of color, specifically black women. And she enrolled me or advised me to enroll in a pretty much a third-year doctoral course. And I pretty much failed out the class.” DWG-16

“The only problems I really had was not really having a model or a mentor to help me through the program. We were all just talking amongst ourselves about what was going on, but we didn’t have any type of blueprint to go by. So none of us really had somebody to look up to. We were all just talking amongst ourselves about what was going on, but we didn’t have any type of blueprint to go by. So all of it was literally just us not really winging it, but just trying to set the example ourselves instead of having an example to actually be able to follow behind.” EW-26

“Just acquiring the money to go to school for the PhD. I guess I would say it wasn’t a problem. I acquired it, but I accumulated a lot of loans . . . and so that could be an obstacle for some people, but I was determined that I was going to get my PhD.” GJ-1

Figures 1.1–1.6 provide additional codes and themes from participants.

**Figure 1.1***What Problems Did you Face Throughout the Process of Obtaining Your PhD? (Question 1)*

<b>Codes</b>	<b>Theme</b>
-It was a challenge trying to make it all work.	Time Management.
-You want to be present for your family.	
-How to navigate the new job as well as balancing school.	

**Figure 1.2***Question 1 continued*

<b>Codes</b>	<b>Theme</b>
-Just acquiring the money to go to school for the PhD.	Financial Cost: Expensive.
-I accumulated a lot of loans.	
-The support wasn't there for me in terms of funds.	

**Figure 1.3***Question 1 continued*

<b>Codes</b>	<b>Theme</b>
-I don't feel she had a lot of experience working with people of color.	Lack of Diversity.
-None of us really had somebody to look up to.	
-First of all, very few black people.	

**Figure 1.4***Question 1 continued***Codes****Theme**


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-He was already discounting me. Lack of Diversity.

-I must have gotten in because of affirmative action.

-There were no black women in our department.

---

**Figure 1.5***Question 1 continued***Codes****Theme**


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-There was no intellectual camaraderie with the White students. Lack of Diversity.

-I just didn't have friends in the department.

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**Figure 1.6***Question 1 continued***Codes****Theme**


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-But my chair, I didn't hear from her for like a year. Lack of student/mentor match.

-It took me a very long time to find the right mentor.

-The support from my original chair just wasn't there.

---

## 2. What Strategies Did you Use to Overcome These Problems?

Six major strategies were identified that participants used during the course of their doctoral journey: Creating a time management schedule, consistent communication/dialogue with their mentors/professors, using their faith/prayer, cohort/student support, family support, and using their voice. Twenty-five percent (25%) of participants stated that creating an effective time management schedule that balanced school, work, and family was critical to their success. Twenty-five percent of participants (25%) also agreed that seeking out and engaging their mentors/professors in frequent communication for guidance and support was at the top of their list. Twenty-two percent of participants (22%) pointed to prayer/faith as one of their primary strategies. Eighteen percent (18%) pointed to cohort/student support and using their families as vital support systems. Fourteen percent (14%) of participants also cited “using their voice” as another invaluable strategy to use. See Figures 2.1–2.6 below for more details.

### Figure 2.1

*What Strategies Did you Use to Overcome These Problems? (Question 2)*

Codes	Theme
-I learned how not to do work at home.	Create a balanced time management schedule.
-I did have to really allot time to learning.	
-I had a planner. So, I learned how to carve out time.	

**Figure 2.2***Question 2 continued***Codes****Theme**


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-I depended a lot on my dissertation Chair.

Relying on the guidance of your Chair.

-I sent my chair so many emails.

-If it wasn't for my chair,  
I definitely don't think I would've done it.

---

**Figure 2.3***Question 2 continued***Codes****Theme**


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-I think what pushed me through pharmacy

Tapping into the power of prayer.

school was my faith.

-I relied heavily on my faith.

-I think, pushed me through pharmacy school was my faith.

---

**Figure 2.4***Question 2 continued***Codes****Theme**


---

-We really became a support system for each other.

Cohort/Student Support.

-Leaning on your classmates.

-I think it is always important for any student, honestly,  
is to have school buddies.

---

## Figure 2.5

### *Question 2 continued*

Codes	Theme
- It was truly a village that helped me get my Doctorate of Ministry.	Family & Friend Support.
-I would not have made it if I did not have a village in my family and friends.	
-I would say my husband as well because he kind of gave me passes, like family events and things like that.	

## Figure 2.6

### *Question 2 continued*

Codes	Theme
-I had to appeal to get back into the program.	Using your voice to advocate for yourself.
-We had our own social group and we banded together to address the university... to really detail what struggles we were having.	
-I had a coming to Jesus meeting, for lack of better words, with my family and began to delegate some of those responsibilities.	

Strategies identified above are illustrated below with quotes from participant interviews:

“Okay, work stays at work. I don’t bring anything from work home. So I learned how not to do work at home. My time at home was my time. And then the time that I had at home was either spending with the kids, spending with my husband and then making the time to write my dissertation.” AE-6

“I actually started networking . . . I networked with a gentleman who was from Africa, who was doing his dissertation, a black gentleman. I got another chair, Caucasian lady from Florida. When I tell you, she is amazing. She’s amazing. So that mentorship and networking.” AC-20

“I just had to be very organized. I got my planner, and I got an accountability buddy. That means this person was finishing their degree as well, and so we would check in on each other and see how we were doing. We would work together . . . and it really helped . . . and I got an academic coach.” AF-5

“One was already baked in, I say, and that was the cohort model. We came in as a group and we took all of our classes together each semester . . . we really became a support system for each other.” AJ-9

“I prayed a lot. And I depended a lot on my dissertation chair. My school was very supportive. When I was a vice principal, my principal told me, ‘If you need to bring her to school after work, just bring her to school. She can sit here with us while we’re doing work or while you’re writing.’ So they had me call my secretary and actually put time in my schedule to write”.

### **3. What Were the top Three Strategies That you Credited for Allowing you to Finish, Complete, and Obtain Your PhD?**

This question was designed to identify the strategies participants credited for their persistence. Persistence refers to the ability to finish and complete a course of action regardless of impeding obstacles (Proctor et al., 2018). For this question, participants identified three major strategies they used to persist: Creating a time management schedule, consistent

communication/dialogue with their mentors/professors, and cohort/student support. At the forefront leading the way, forty-eight percent (48%) of participants identified time management as one of their persistent strategies, thirty-seven percent (37%) of participants identified consistent communication/dialogue with mentors/professors, and thirty-seven percent (37%) of participants identified cohort/student support as one of the key persistent strategies they used. See Figures 3.1–3.6 below for more details.

### Figure 3.1

*What Were the top Three Strategies That you Credited for Allowing you to Finish, Complete, and Obtain Your PhD? (Question 3 continued)*

Codes	Theme
-Dedicating specific time during the day to my homework.	Create a balanced time management schedule.
-I was able to have the free time at the end of the day. Number two, just sitting down to write.	
-Creating a sacred space for me to meditate, for me to pray, and then for me to work and spread everything out.	

**Figure 3.2***Question 3 continued*

Codes	Theme
-Keeping them in the loop, just a lot of communication.	Communication & Matching with the Right Mentor/Chair.
-Having a rapport with your committee and your chair.	
-Running everything through my major professor.	

**Figure 3.3***Question 3 continued*

Codes	Theme
-Teaming up, finding people in your class that you can study with.	Using your cohort/student group for support.
-The cohort, these study groups were really important.	
-I think it is always important for any student, honestly, is to have school buddies.	

**Figure 3.4***Question 3 continued*

Codes	Theme
-Number two was actually having networks and connections in place.	Networking with other groups that looked like you.
-I reached outside of my department to find resources, people.	
-Definitely that community where I didn't have to code switch.	

**Figure 3.5***Question 3 continued*

Codes	Theme
-Number two was actually having networks and connections in place.	Family & friends' financial/ emotional support.
-Having someone there to help was the big help.	
-I ended up making a lot of friends... through church, through different places that I met.	

**Figure 3.6***Question 3 continued*

Codes	Theme
-Aside from prayer? Networks and connections in place.	Prayer as a central support system.
-My faith definitely helped.	
-The Lord blessed me with the spirit of doggedness...I just kept at it.	

Persistent strategies identified above are illustrated below with quotes from participant interviews:

“First strategy was clearing my schedule to write all day. The second strategy was having a great editor. Mm-hmm. And then also relying on my dissertation chair.” LH-14

“I would say dedicating specific time during the day to my homework, like specific, from six to eight on this day, from eight to two on this day, specific times, and allowing myself breaks during the week.” SC-2

“Finding a study group. Discipline. Putting in hard work. Do what you have to do when you have to.” CA-12

“Talking to other students, the ones that actually I formed relationships with, especially if they were in the cohorts.” AK-13

“Consulting classmates to ask questions or try to get clarification or bounce ideas off of.”

LK-17

“Be in constant communication with my Chair because sometimes I would think things were right and it wasn’t.” SC-2

“So the top one was essentially just running everything through my major professor.”

EW-26

“That mentor or the readers . . . for that feedback. You need constant feedback to help narrow your focus, to . . . kind of serve as your cheerleader and also your accountability partner.” YY-11

#### **4. What Were the top Three Strategies That you Used Successfully to Adapt to the Challenges and Obstacles During the Process of Obtaining Your PhD?**

This question was designed to identify the strategies participants used successfully to adapt to challenges and remain resilient. Resilience refers to one’s ability to adapt positively when confronted with adversity or stress (Afifi et al., 2016). For this question, participants identified three major strategies they used to successfully adapt to challenges and remain resilient: Forty percent (40%) of participants identified cohort/student support as a key strategy they used to adapt to challenges, thirty-seven percent (37%) of participants identified creating a time management schedule, and thirty-seven percent (37%) of participants identified consistent communication/dialogue with their mentors/professors as being a key adaptive strategy. See Figures 4.1–4.5 below for more details.

**Figure 4.1**

*What Were the Top Three Strategies That you Used Successfully to Adapt to the Challenges and Obstacles During the Process of Obtaining Your PhD? (Question 4)*

**Codes****Theme**


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—	
For the time management, setting appointments with myself.	Create a balanced time management schedule.
-Creating a sacred space for my only personal needs. I have children and still needed to engage.	
-We would Zoom every Sunday, and we would just write.	

---

**Figure 4.2**

*Question 4 continued*

**Codes****Theme**


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- Making sure I had a good rapport with the department chair and my dissertation chair.	Communicating & matching with the right mentor/Chair.
-Utilizing the resources that the professor recommends and uses.	
-Reaching out to advisors.	

---

**Figure 4.3***Question 4 continued*

Codes	Theme
-Reaching back to others who've already been in those spaces and listening.	Using your cohort/student support group.
-That cohort and meeting people who were dealing with the same challenges	
that I was going through.	
-Again, consulting with classmates.	
That was huge for me.	

**Figure 4.4***Question 4 continued*

Codes	Theme
-Creating the community of African American.	Networking with other groups that looked like you.
-I was able to connect with other PhD students that were in my field.	
-I would put something out on those Facebook groups and then I'd get a list of, you can do it. Don't give up. I've been there.	

**Figure 4.5***Question 4 continued***Codes****Theme**


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-I'm not going out that simply, sorry!

Being determined: Fight. Never give up, no matter what.

-There was an understanding that I would have to work five to 10 times harder to be deemed maybe equal to any of my peers.

-I was going to get it done no matter how hard, no matter what it took.

---

Resilience strategies identified above are illustrated below with quotes from participant interviews:

“Meeting people who were dealing with the same challenges that I was going through, meeting some of those people who were ahead of me in the program, and so they could tell me what was coming down the road, all of those things.” RB-25

“Getting you through is that cohort reliance and bringing the sense of community . . . Creating the community of African American Cohorts. I didn't have to code switch to from a cultural perspective.” WM-15

“For the time management, setting appointments with myself.” YY-11

“Just giving myself permission on the weekends to maybe go to the movies, go on a date, giving myself permission to go out of town, and not write, not read, none of that.” KDB-7

“Really being a self-starter and reaching out to advisors.” LB-19

“Utilizing the resources that the professor recommends and uses.” TO-21

“. . . making sure I had a good rapport with the department chair and my dissertation chair.” PD-22

### **Summary of Strategies: Questions 2–4**

#### **Saturation**

Over 28 strategies were identified that were used by research participants, but for the sake of brevity, only the most frequently cited strategies will be highlighted. Saturation is a vital component of qualitative research that speaks to the strength and validity of the data collected (Hennink & Kaiser, 2022; O’Reilly & Parker, 2013). Hennink and Kaiser (2022) defined saturation as “the point at which little or no relevant new codes and/or categories were found in data, when issues begin to be repeated with no further understanding or contribution to the study phenomenon, its dimensions, nuances, or variability” (p. 3). This study sought to identify the collective strategies utilized by African American doctoral students who successfully earned a PhD, more specifically, what strategies they used to persist, adapt, and overcome major obstacles or problems before them.

When asked what strategies they used collectively to persist and adapt, in questions 2-4, to address problems they faced in pursuit of their PhD, participants overwhelmingly identified three important strategies that all reached saturation. Saturation was measured by the frequency with which each strategy was cited by all 27 participants. Time management was the most frequently cited (30) strategy, with participants highlighting the critical importance of creating a schedule that balances school, work, and family. Consistent communication/dialogue with mentors/professors was the second most cited (27) strategy, which participants credited for

successfully navigating the doctoral process. The third most cited (26) strategy was cohort/student support, which participants identified as an invaluable support system.

**Table 1.2**

*Number of Participants Cited Using These Strategies*

Strategies	Number of Participants	Number of times participants cited using this strategy
Time Management	27	30
Communication/dialogue with mentors/professors	27	27
Cohort/student support	27	26

### **5. Were There any Problem(s) That Almost Led you to Drop Out, and how Did you Overcome This Problem?**

An alarming revelation from the data revealed that 22 (81%) out of the 27 participants considered dropping out for reasons ranging from financial issues, departmental/academic conflicts, lack of school support, racial/diversity issues, personal problems, and/or lack of confidence that they could do the work. Below are some of the strategies that prevented participants from dropping out and allowed them to persist and remain resilient.

**Table 1.3***Number of Participants who Considered Dropping Out*

Number of Participants	Number of Participants who considered dropping out	Percentage
27	22	81%

Analysis of the data revealed that participants relied on four key strategies to avoid dropping out: Cohort/student support, determination to fight and not give up no matter what, financial/emotional support from family, and consistent communication and dialogue with mentors/professors. Forty percent (40%) of the participants reported they relied heavily on cohort/student support to get them over the hump; twenty-five percent (25%) of participants relied on their dogged determination and fight to never give up; and twenty-two percent (22%) of the participants stated that financial/emotional support from family and constant communication with their mentors/professors helped pull them through these difficult times. See Figures 5.1–5.4 below for more details.

**Figure 5.1**

*Were There any Problem(s) That Almost led you to Drop out, and how Did you Overcome This*

*Problem? (Question 5)*

**Codes****Theme**


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-Having gone through a cohort, I didn't want to let those individuals in the cohort down.

Using your cohort/student support system.

-And they were like, you're too close to the end. You have to finish.

-It was just so good having that support system.

---

**Figure 5.2**

*Question 5 continued*

**Codes****Theme**


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-Nothing was going to stop me.

Being determined: Fight. Never give up, no matter what.

-And that lit a fire in my butt. I was like, "An F reflects my effort? And you have no clue what's going on in my life?"

-It set me back an entire year, but delay is not denial...I had to get that degree.

---

**Figure 5.3***Question 5 continued*

Codes	Theme
-Again, the family, "You're too close."	Support from family and friend.
-I remember someone saying to me, "You have community. You have to reach out to community. You don't have to do everything by yourself."	
I was strongly considering dropping out of the program for finances.	

**Figure 5.4***Question 5 continued*

Codes	Theme
-I wrote a grievance and had him removed off of my study.	Getting support from your Chair.
-Again, my chair like, "All you have to do are these revisions, so why would you quit when you have three revisions to do?"	
-I was in the hospital, and when I woke up, the person standing there was my dissertation director.	

Strategies identified above are illustrated below with quotes from participant interviews:

“. . . I was not going to allow any circumstances to get me down. And most people they fail a class and they're just like, "forget it," and throw their hands up, especially because it was the first year. And it set me back an entire year, but delay is not denial . . . Everybody knew I was going to pharmacy school. I had to get that degree." LK-17

“. . . there was nothing, there was nothing, when I look back on it, there was nothing that was going to stop me from getting this degree.” LM-3

“Nothing was going to stop me. Cause I had invested that doggone money. I'm not going to be a person that what they call them, I can't remember the name of it, but you got everything except for the doctorate.” GJ-1

“Oh, gosh. I wanted to quit every day. Especially the money. . . being a private university, it was double what it would've been at a public university, and I didn't have any scholarships or grants or anything like that. So yeah, each time I had to write that check, I almost quit. I recognized the significance of the degree . . . and having gone through a cohort, I didn't want to let those individuals in the cohort down.” YY-11

“Early in the process, I almost dropped out because it was just really stressful, and someone had put a racist message in my mailbox, and the way that the department handled it, is by sending out an email, telling people not to abuse mailboxes. Mailboxes. So I was like, this program is whack. I don't want to be here. But I stayed. But I really thought I was going leave, when I got really sick with my mental health.” AF-5

“I felt at one point we had a significant amount of deaths in our family all happen at the same time. I found that very difficult because I was already having a hard time with work life balance. I was like, ‘Okay, forget it. I'm just going to hang this whole process up.’”

SC-2

“Well, of course, the first semester is always the hardest, and if there ever was a time that I was going to drop out, it would’ve been the first semester when everything was really alien.” KN-4

## **6. What do you Feel Prepared you the Most to Persist and Obtain Your PhD?**

Participants identified four key strategies they felt prepared them to persist throughout their journey to obtain their PhD: Self-motivation, motivation from their family, their determination to fight and never give up no matter what, and thoughts of being a role model for others. Thirty-seven percent (37%) of the participants reported their high self-motivation was key; twenty-five percent (25%) of participants pointed to motivation from their family as another driving force; twenty-two percent (22%) of the participants stated that their raw determination to fight and never give up no matter what was everything; and eighteen percent (18%) of the participants referenced just the thought of being an example and role model was a driving force in and of itself. See Figures 6.1–6.4 below for more details.

**Figure 6.1***What do you Feel Prepared you the Most to Persist and Obtain Your PhD? (Question 6)*

Codes	Theme
-I knew I was fighting for ... to set my career up.	Self-motivation.
-So, this was all solely because I wanted to do it.	
-I was doing this for a greater cause than myself.	

**Figure 6.2***Question 6 continued*

Codes	Theme
-I want to be, I want to break record in my family to actually obtain a PhD.	Motivation from my family.
- I just didn't want to not complete something that I knew would have been expected of me, so that pushed me.	
-My elder sister is also a PhD holder in Spain.	

**Figure 6.3***Question 6 continued*

Codes	Theme
-We have a rule you don't quit. You might fail, but you don't quit.	Determined: Fight. Never give up, no matter what.
- I wanted to learn and I was there to learn and so, I made that my mission.	
-The determination to be the first.	

**Figure 6.4***Question 6 continued*

Codes	Theme
-It was also setting the standard for my family. You might fail, but you don't quit.	Role Model: being an example.
- She was six, and she was like, "Oh, I want a doctor for a mommy." That's cool.	
-He modeled what I did. And I realized not only am I a model for my son, but I'm a model for my community.	

Strategies identified above are illustrated below with quotes from participant interviews:

“. . . gratefully, my upbringing. I grew up in a military family. And we have a rule: you don't quit. You might fail, but you don't quit. And I think having that . . . instilled in me at a young age just . . . I think was very helpful.” YY-11

“Having a plan and sticking to it, to be honest, is probably the easiest thing I can say. I had this plan for years and so nothing really was going to stop me from completing it. Even the setbacks.”

“Yeah. Nothing was really going to prevent the goal from coming to fruition.” CA-12

“My daughter. My daughter, 100%. And I knew, when I first decided I wanted to start the program, I had a talk with her. Like I said, she was six, and she was like, ‘Oh, I want a doctor for a mommy.’ That’s cool . . . Getting her to understand that there are no obstacles that she cannot overcome. And just trying to raise this beautiful little African American girl who feels like she doesn’t have those same confidence issues that I have. That definitely motivated me. And that was the biggest motivation and the biggest reason why I had to finish.” LH-14

“I think that there was a buddy system in the doctorate program. So basically, your first-year incoming students would get paired up with a second-year student, and they mentored you and gave you little tips and tricks and if you needed books, if you didn’t understand something, they basically helped guide you along throughout your years there. So I think that definitely helped prepare me for what to expect.” T0-21

“The determination to be the first from my family to obtain a PhD. So self-determination mostly. So self-determination and accomplishment. That actually propelled me very well. So that was like a driving force. So self-determination and the fact that I want to be, I want to break record in my family . . . to actually obtain a PhD.” TS-23

## **7. Were There any Specific Problems That you Did not Overcome?**

Research participants cited various problems that they encountered that they did not overcome, like not making grade expectations, not studying in their field of choice, unexpected health issues, and producing a higher quality dissertation document. However, none of the initial problems cited by participants were recited by other participants with the exception of “not making grade expectations.” They were all singular experiences for each research participant.

## **8. What Gave you the Self-Confidence That you Could Aspire and Achieve the Goal of Obtaining Your PhD?**

The final question sought to understand what gave participants the self-confidence to aspire, achieve, and obtain their PhD. The participants identified six factors that drove them: Role models in family and friends, self-motivation, determination and fight not to give up no matter what, financial/emotional support from family and friends, being a role model for others, and determination to prove doubters wrong. Thirty-three percent (33%) of the participants identified role models in family and friends as an important factor; twenty-five percent (25%) of participants pointed to internal self-motivation as an important driver; twenty-two percent (22%) of the participants stated the determination and fight not to give up no matter propelled them forward; fourteen percent (14%) of the participants referenced both financial/emotional support from family and friends and being a role model for others in their communities were drivers of their self-confidence; and seven percent (7%) of the participants were driven and determined to prove the doubters wrong. See figures 8.1–8.6 below for more details.

**Figure 8.1**

*What Gave you the Self-Confidence That you Could Aspire and Achieve the Goal of Obtaining Your PhD? (Question 8)*

**Codes****Theme**


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-We have a rule you don't quit.  
You might fail, but you don't quit.

Determined: Fight. Never give up,  
no matter what.

- I wanted to learn and I was there  
to learn and so, I made that my mission.

-The determination to be the first.

---

**Figure 8.2**

*Question 8 continued*

**Codes****Theme**


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-I saw it repeatedly around me.

Role Model: family and friends, etc.

-My dad is a PhD graduate, my  
sister is a PhD graduate.

-I came across an administrator and  
she was hands down one of my top  
10 people in terms of transforming  
a building, transforming her personal life.

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### Figure 8.3

#### *Question 8 continued*

##### Codes

##### Theme

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-You'll never make it ...That just went in my memory bank.

Determined: Fight. Never give up, no matter what.

- I believe I can achieve or I can attain any heights irrespective of the challenges.

-I've always fought hard to fight against the notion of dumb athletes.

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### Figure 8.4

#### *Question 8 continued*

##### Codes

##### Theme

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-They'd say, "I know you can do it. You're smart."

Financial/emotional support from family & friends.

-And people were like, "You need to do this. This is something you need to think about. You could do well in this work."

-My community, my family, the people who were giving up and making sacrifices for me to achieve the goal.

**Figure 8.5***Question 8 continued***Codes****Theme**


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-I want to prove you wrong,  
because y'all think I couldn't.

Determined to prove the doubters wrong.

- I don't like being told "no,"  
and I work so that I'm not  
told that word.

---

**Figure 8.6***Question 8 continued***Codes****Theme**


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-Having the cohort model really helped.

Cohort/student support system.

-I would say these communities,  
social media, experiences from others.

---

Strategies identified above are illustrated below with quotes from participant interviews:

“I’ve always felt like it wasn’t just for me. I felt like it was, especially as a Black woman, that I need to change how we were presented. And again, for my family. I told my nephew, ‘I walk so you can run,’ and I meant that.” SC-2

“Well, I’m stubborn, determined, and I think the core values my parents instilled, and just kind of my personality is, I don’t like being told ‘no,’ and I work so that I’m not told that word.” KN-4

“I guess being in education, I’ve taught at a lot of lower income schools and a lot of kids that look like me and look like you. And I just wanted them to see that, no matter what, where you come from your background, we could do it, too . . . So I just wanted them to know it’s not just other people, we could do it.” AB-6

“I saw it. That literally was it. I saw it repeatedly around me. Yeah. My dad was my first one. I actually dedicated my dissertation to him. In the dissertation, the dedication says he was the first one who showed me it was possible. Education is huge in my family. My parents have always expressed that. There are three children in my family, and it was never a possibility. In our minds, there was never an option. We were always going to college, and we were always going to grad school.” LG-10

“I thought back to the professors in the master’s program who told me that I should consider doing the PhD. I had three white male professors. Well, four, who said, ‘You know what? I think you would be a good addition to the PhD program.’ And so to be validated by four white men, I felt as though this was something I should do and I should pursue. And to have that come from them, unsolicited, I felt as though I couldn’t let them down because they believed in me enough to suggest me. So that was my reason to keep going. That was a big reason.” AK-1

#### **Persistent and Resilient Strategies: Questions 3 and 4**

This study sought to understand how African American doctoral students utilized persistence and resilience. Participants revealed, with respect to persistence, they relied heavily on these persistence strategies, which include creating a time management schedule, consistent dialogue with mentors/professors, cohort model/ peer/student support/talking to peers who were

going through the same process, support of parishioners from church, using faith, networking with other groups, financial/emotional support from family & friends, and prayer. With respect to resilience, participants revealed they used these resilience strategies, which include cohort model/peer/student support/talking to peers who were going through the same process, creating a time management schedule so they can work and spend time with family and friends, consistent dialogue with mentors/professors, networking with other groups and/or to meet other Black students/Black professors, and staying determined: Fight. Never give up, no matter what.

### **Sociocultural Finding**

The relationships between external and internal processes are at the heart and foundation of sociocultural communication theory (Craig, 2006). In this study, the results showed the socialization experiences of African American doctoral students proved worrisome and include conflicts with mentor/chair, a lack of diversity on campus, and prevalence of microaggression/racism, which can all derail the goal of obtaining their doctoral degree.

### **Summary of Findings**

The problem the central research question is designed to answer is determining what strategies successful African American doctoral students utilized to avoid being part of the attrition statistics plaguing higher learning institutions. It is anticipated that understanding the lived experiences of these African American doctoral students and choices they made in pursuit of the graduate degree may unveil nuggets that are useful for future students to navigate their own doctoral journeys. This study also probed deeper with sub-questions designed to answer what specific strategies these successful African American doctoral students used to build their *resilience and persistence*.

Five major problems emerged during the doctoral experiences of African American students at their respective colleges and universities: time management, financial cost, inadequate student/mentor match, lack of diversity, and racism/micro-aggression. Participants identified time management as one of the major problems that they encountered, meaning they had issues balancing school, work, and family time. Financial cost turned out to be a major impediment as well. A lack of diversity was also one of the problems cited, meaning there were few or no students or professors of color at their institutions that they could relate to. Lastly, some participants experienced some level of racism/micro-aggression through direct or indirect communication.

When participants were asked what strategies they used collectively to persist and adapt to the problems they faced during obtaining their PhD, the data revealed overwhelmingly that time management, consistent communication/dialogue with mentors/professors, and support were the three major factors pushing African American students successfully through their doctoral degree programs.

Consistent with the known attrition trend of African American students in doctoral programs, 22 of the 27 (81%) participants reported they almost dropped out of school. If this statistical finding had come to fruition, this would have been greater than the current attrition rate, 40-60% (Gardner, 2009), of African American doctoral students. Other survival strategies employed by participants included prayer, self-motivation, determination, role models, and family support. Participants stated all of these strategies were instrumental in pulling them through their doctoral journeys to successfully obtain their PhD.

## **Chapter 5: Discussion**

### **Overview**

The problem that was addressed in this study is the high attrition rate among African American doctoral students. Correspondingly, the central research question guiding this study is the strategies to address the high attrition rate of African American doctoral students in the United States. The sub-questions were developed to answer the impact of resilience and persistence on the retention and graduation of African American doctoral students in the United States.

The purpose of this qualitative phenomenological study is to explore the attrition rate of African American doctoral students and how to improve their retention and graduation using resilience and persistence. In other words, this qualitative phenomenological approach will allow investigators to dive deeper and explore the role and impact of resilience and persistence on graduation. For purposes of discussion, this chapter will focus on (1) highlighting the summary findings and reviewing and interpreting the findings, (2) identifying the implications from a policy and practice perspective, (3) identifying the theoretical implications, (4) acknowledging the limitations of the findings, and (5) providing recommendations for new approach in the field and direction of future research.

The problem the central research question is designed to answer is determining what strategies successfully African American doctoral students utilized to avoid being part of the attrition statistics plaguing higher learning institutions. It is anticipated that understanding the lived experiences of these African American doctoral students and choices they made in pursuit of the graduate degree, may unveil nuggets that are useful for future students to navigate their own doctoral journeys. This study also probed deeper with sub questions designed to answer

what specific strategies these successful African American doctoral students used to build their *resilience and persistence*.

Four major themes emerged during the doctoral experiences of African American students at their respective colleges and universities: Time management, financial cost, inadequate student/mentor match, lack of diversity, and racism/micro-aggression. Participants identified time management as one of the major problems that they encountered, meaning they had issues balancing school, work, and family time. Financial cost turned out to be a major impediment as well. A lack of diversity was also one of the problems cited, meaning there were few or no students or professors of color at their institutions that they could relate to. Lastly, some participants experienced some level of racism/micro-aggression through direct or indirect communication.

When participants were asked what strategies they used collectively to persist and adapt to the problems they faced during obtaining their PhD, the data revealed overwhelmingly that time management, consistent communication/dialogue with mentors/professors, and cohort/student support were the three major factors pushing African American students through their doctoral programs successfully.

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**Interpretation #1: Time Management**

Sixty-six percent (66%) of participants reported that time management was their number one problem during their doctoral journey, and they had to make drastic changes to their schedules in order to appropriately balance family life, work, and school. AJ-9 stated, “It was a challenge trying to make it all work. You want to be present for your family. You want to have some sort of social life. So just juggling everything.” This finding suggests African American doctoral students enter graduate programs woefully unprepared for the time demands their graduate studies will require of them. The data further suggest participants had to quickly adapt to new time demands by organizing their family, work, and school schedules to avoid falling behind, failing, or worse, dropping out. From a policy or practical perspective, higher learning institutions could preemptively orient students before enrollment in graduate courses on how to avoid and effectively address time management issues around work, family, and school.

**Interpretation #2: Consistent Communication with Mentors/Professors**

Participants cited frequent communication with their mentors as a major strategy to address problems. Consistent communication/dialogue with mentors/professors was the second most cited strategy participants used. However, this becomes problematic when students and mentors do not get along. The data pointed to poor matchmaking or a lack of mentorship between students and mentors as an overlooked problem. “The only problems I really had was not really having a model or a mentor to help me through the program” (EW-26). DWG-16 further shared:

This particular professor, I don't feel had a lot of experience working with people of color, specifically Black women. And she enrolled me or advised me to enroll in a pretty much a third-year doctoral course. And I pretty much failed out the class.”

The data suggest schools should make a more concerted effort to improve matching students with the right mentors to maximize a successful outcome.

### **Interpretation #3: Cohort/Student Support**

Cohort/student support was the third most cited strategy that participants identified as an invaluable support system. One student spoke of the important role cohort/student support played during her journey through her doctoral program: “Talking to other students, the ones that actually I formed relationships with, especially if they were in the cohorts” (AK-13). Another participant added, “Getting you through is that cohort reliance and bringing the sense of community . . . Creating the community of African American cohorts. I didn’t have to code switch from a cultural perspective” (WM-15).

The data suggest schools could make cohort/student support a required part of the school curriculum to help doctoral students support each other through their doctoral journey.

### **Interpretation #4: Dropping Out**

It is to be noted that while this study reviewed attrition, all the participants finished and obtained their doctoral degree. However, consistent with the known attrition trend of African American students in doctoral programs, 22 of the 27 (81%) participants in this study reported they almost dropped out of school. If this statistical finding had come to fruition, this would have been greater than the current attrition rate, 40-60% (Gardner, 2009), of African American doctoral students.

“Oh, gosh. I wanted to quit every day. Especially the money. . . being a private university, it was double what it would’ve been at a public university, and I didn’t have any scholarships or grants or anything like that. So yeah, each time I had to write that check, I almost quit. I recognized the significance of the degree . . . and having gone

through a cohort, I didn't want to let those individuals in the cohort down.”

(Y Y-11)

“Early in the process, I almost dropped out because it was just really stressful, and someone had put a racist message in my mailbox, and the way that the department handled it, is by sending out an email telling people not to abuse mailboxes. Mailboxes. So I was like, this program is whack. I don't want to be here. But I stayed. But I really thought I was going leave, when I got really sick with my mental health.” (AF-5)

This finding suggests the attrition rate of African American doctoral students may be more dire than originally expected. Even the most well tested doctoral program survivalists in this study strongly contemplated dropping out of school due to a variety of problems they encountered in graduate school. It is recommended that schools take a more aggressive approach to reaching out intermittently with support for African American doctoral students that may be struggling.

## **Implications**

### **Practical Implications**

Jordan et al. (2022) argued it was vitally important to understand what factors are creating the environment for failure or success. Bridge programs may be more effective if they focused on teaching African American students more practical skills, like better time management strategies, how to improve their communication skills with their mentors/professors, and how to network with other graduate students. Currently, student retention is not working at an acceptable level. Changes are needed to boost retention and maximize doctoral students obtaining their terminal degrees. The practical implications of this study highlight how orienting students on effective time management strategies, designing a better way of matching students with professors, and requiring all graduate students to participate

in cohort/student support groups could be effective ways of lowering attrition and boosting the retention rate of African American doctoral students. In addition, Callahan et al. (2018) argued if higher educational institutions were to cultivate and support doctoral students of color, student persistence in this demographic would improve, and it would create a pipeline into the professoriate for faculty of color. Arguably, this study is transferable to other racial groups because the findings identified the three most used strategies: time management, consistent communication/dialogue with mentors/professors, and cohort/student support, which are available to all other racial groups.

### **Theoretical Implications**

The theoretical context for grounding this study is sociocultural communication theory. The relationships between external and internal processes are at the heart and foundation of sociocultural communication theory (Craig, 2006). Participants from this study identified problems involving the social interactions between African American students and professors and non-African American students, specifically, poor student-mentor match, a lack of diversity in the school and teaching professors, and racist/micro-aggression in social encounters at schools. How African American students internalize these experiences may impact their decision to drop out.

Approaching this study from the theoretical perspective of understanding why some African American students can successfully navigate the difficult pathway to obtain their PhD while others drop out may shed insights on new areas of research, such as better ways to match students with mentors or the best way of designing culturally sensitive environments in higher educational institutions. For example, Englund et al. (2018) suggested teaching practices within the classroom are influenced by cultural and distinct patterns of communication. Klimova et al.

(2019) further suggested promoting cultural awareness in learning environments should be at the forefront of improving cultural competency and sensitivity. Future research in these areas could yield fruitful information from a sociocultural perspective on how best to create a more inclusive and culturally sensitive learning environment.

This study could advance knowledge and contribute to scholarship of higher education, adolescent development, communication theories, and sociocultural studies. This study could also have practical implications and promote a positive social change.

### **Limitation and Delimitation**

The limitation of this study is not having a seasoned interviewer to conduct the interviews, which could prevent the interviewer from gathering rich insightful data (Kajornboon, 2005). To address this limitation, the interviewer reviewed research literature and training videos on how to conduct effective interviews (McNamara, 2022; Roulston, 2021; Vindum, 2021; Bolderston, 2012). In addition, while this study reviews attrition, all the participants completed the PhD. The delimitation of this study is only focusing on the attrition of African American PhD students even though attrition in graduate programs is high in other racial groups as well. The rationale for delimiting the study to African American PhD students is that while African Americans are the second largest minority group (United States Census Bureau, 2020) in the United States (12.1%), they lead all minority groups with the lowest success rates in doctoral programs (Jordan et al., 2022).

### **Recommendations and Future Research**

This study highlighted the current state of African American PhD students' attrition from graduate programs throughout the United States. This study further highlighted the importance of employing certain strategies to successfully navigate the difficult terrain of pursuing and

obtaining a PhD. For both resilience and persistence, the findings suggest African American doctoral students overwhelmingly relied on three strategies: time management, consistent communication with mentors/professors, and cohort/student support to push through their doctoral journey successfully. From a practical perspective, orienting students on effective time management strategies, improving the matchmaking process between students and mentors, and requiring all graduate students to participate in cohort/student support groups could be effective ways of lowering attrition and boosting the retention rate of African American doctoral students. The data also suggest that thoughts of dropping out surface for many African American doctoral students somewhere along their journey for a variety of reasons, but the saving grace is having and utilizing the right strategies to pull them through. In addition, future research could explore differences between online students versus residential students with respect to problems cited and strategies used to successfully navigate the doctoral journey and obtain their doctoral degrees. Finally, this study identified a lack of diversity as one of the problem research participants identified. Healthy diversity can provide a rich perspective from different points of view with respect to culture and research topics, which is sorely needed in the higher learning space.

This study adds to the scientific literature in two ways: First, this is one of a limited number of studies that examine from a positive perspective how some African American doctoral students successfully beat the attrition odds to obtain their PhD, and second, this study dives deeper to understand how these students overcame, persisted, and remained resilient to obtain their doctoral degree despite over 80% of them teetering on dropping out.

## **Conclusion**

Throughout doctoral programs across the United States, the rate of African American attrition has gone unabated, with no sign of arresting its upward trend. A new approach is sorely needed to reverse this course. It is critically important that higher learning institutions implement practical programs that build on the strategies unearthed by this study, meaning implementing early intervention orientation programs that increase awareness and providing direction on effective time management, student/mentor matching, and cohort/student support strategies.

This study could advance knowledge and contribute to scholarship of higher education, communication theories, and sociocultural studies. This study could also have practical implications and promote a positive social change. Although the primary focus of this study is on African American PhD students, the findings may be relevant and applicable to students of all.

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## APPENDICES

### Appendix A: Liberty University IRB Approval

Date: 8-30-2022

IRB #: IRB-FY21-22-816  
Title: UTILIZING RESILIENCE AND PERSISTENCE STRATEGIES TO REDUCE BLACK DOCTORAL ATTRITIO  
Creation Date: 3-1-2022  
End Date:  
Status: **Approved**  
Principal Investigator: Dudley Davis  
Review Board: Research Ethics Office  
Sponsor:

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Study History

Submission Type	Initial	Review Type	Expedited	Decision	Approved
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Key Study Contacts

## Appendix B: User Interview Site Authorization

The screenshot shows a web application interface for a project titled "African American PhD graduates". The interface is divided into a left sidebar and a main content area. The sidebar is dark green and contains a "Project overview" section with a pencil icon, and three main sections: "RECRUIT" (with sub-items: Participants, Characteristics, Screener survey, Invite participants), "SCHEDULE" (with sub-item: Confirmed sessions), and "COMMUNICATE" (with sub-items: Messages, Automated emails, and a highlighted "Help" button). The main content area has a green header with the project title and a "Completed" status indicator. It is divided into two main sections: "High level summary" and "Session details".

**African American PhD graduates** Completed

**Project overview**

**RECRUIT**

- Participants
- Characteristics
- Screener survey
- Invite participants

**SCHEDULE**

- Confirmed sessions

**COMMUNICATE**

- Messages
- Automated emails
- Help

**High level summary**  
These fields help get participants interested *without* being leading

[Edit](#)

**Public title**  
African American PhD graduates

**Public description**  
We are looking to interview African American doctoral students who successfully navigated graduate school and received their PhD. The interview will be conducted in 1 on 1 format with open ended questions.

**Session details**  
These are the specifics of how your sessions will be taking place

[Edit](#)

**Instructions for confirmed participants**

Number of participants requested  
51

Participant review  
Manual (more control)

Double screening

## Appendix C: Study Recruitment Protocol

Dear [Recipient]:

As a graduate student in the School of Strategic & Personal Communication at Liberty University, I am conducting research as part of the requirements for a PhD. The purpose of my research is to understand the strategies utilized by African American PhD graduates to address the high attrition rates of African American doctoral students in the United States, and I am writing to invite eligible participants to join my study.

Participants must be 18 years of age or older and African Americans that have persisted and obtained a PhD from an accredited college or university in the United States. Participants, if willing, will be asked to take part in an interview via Zoom, FaceTime, or by telephone for approximately 30-45 minutes. Interviews held over Zoom and FaceTime will be audio- and video-recorded, and telephone interviews will be audio-recorded. In addition, participants will be asked to review the credibility of the findings and interpretations, which should take no more than 10-15 minutes. Names and other identifying information will be requested as part of this study, but the information will remain confidential.

To participate, please download, read, and sign the consent form attached to this email. Please return the consent form to the email provided (xxx@xxxxxxx). After you have turned in your signed consent form, you will be emailed a scheduled time for the interview.

The consent document contains additional information about my research. If you choose to participate, you will need to sign the consent document and return it to me via email prior to your interview. Doing so will indicate that you have read the consent information and would like to take part in the study.

Participants will receive a \$10 gift card sent via email after the interview is complete.

Sincerely,  
Dudley Davis  
Doctoral Candidate  
xxx-xxx-xxxx  
xxx@xxxxxxx

## Appendix D: Informed Consent

**Consent**

**Title of the Project:** Utilizing Resilience and Persistence Strategies to Reduce African American Doctoral Attrition

**Principal Investigator:** Dudley Davis, Doctoral Candidate, Liberty University

**Invitation to be Part of a Research Study**

You are invited to participate in a research study. To participate, you must be 18 years of age or older and an African American who persisted and obtained a PhD from an accredited college or university in the United States. Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

**What is the study about and why is it being done?**

The purpose of this study is to explore the attrition rate of African American doctoral students and how to improve their retention and graduation using resilience and persistence.

**What will happen if you take part in this study?**

If you agree to be in this study, I will ask you to do the following things:

- Participate in an interview via Zoom, FaceTime, or by telephone for approximately 30-45 minutes. Interviews held over Zoom and FaceTime will be audio- and video-recorded, and telephone interviews will be audio-recorded.
- Review the credibility of the findings and interpretations, which should take no more than 10-15 minutes.

**How could you or others benefit from this study?**

Participants should not expect to receive a direct benefit from taking part in this study.

Benefits to society include potential decreases in the attrition rate of African American doctoral students and increases in African American doctoral students obtaining PhD terminal degrees, which in turn could stimulate positive social change and revive economic development in underserved communities.

**What risks might you experience from being in this study?**

The risks involved in this study include a breach of participant confidentiality/privacy. The confidentiality/privacy risks in this study are minimal and equal to the risks you face in everyday

**How will personal information be protected?**

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records. Data collected from you may be shared for use in future research studies or with other researchers. If data collected from you is shared, any information that could identify you, if applicable, will be removed before the data is shared.

- Participant responses will be kept confidential through the use of pseudonyms. Interviews will be conducted in a location where others will not easily overhear the conversation.
- Data will be stored on a password-locked computer and may be used in future presentations. After three years, all electronic records will be deleted.
- Interviews will be recorded and transcribed. Recordings will be stored on a password-locked computer for three years and then erased. Only the researcher will have access to these recordings.

**How will you be compensated for being part of the study?**

Participants will be compensated for participating in this study. Participants will be emailed a \$10 gift card after fully completing the interview.

**Is study participation voluntary?**

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any questions or withdraw at any time without affecting those relationships.

**What should you do if you decide to withdraw from the study?**

If you choose to withdraw from the study, please contact the researcher at the email address/ phone number included in the next paragraph. Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

**Whom do you contact if you have questions or concerns about the study?**

The researcher conducting this study is Dudley Davis. You may ask any questions you have now. If you have questions later, you are encouraged to contact Dudley Davis at xxx@xxxxxxxxxx or xxx-xxx-xxxx. You may also contact the researcher's faculty sponsor, Dr. Robert Mott, at rkmott@liberty.edu.

**Whom do you contact if you have questions about your rights as a research participant?**

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA 24515 or email at irb@liberty.edu.

*Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.*

**Your Consent**

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided

above.

*I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.*

The researcher has my permission to audio- and video-record me as part of my participation in this study.

\_\_\_\_\_  
Printed Subject Name

\_\_\_\_\_  
Signature & Date

## Appendix E: CITI Behavioral Research Certificate

**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)**  
COMPLETION REPORT - PART 1 OF 2  
COURSEWORK REQUIREMENTS\*

\* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details. See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

- Name: Dudley Davis (ID: 9623079)
- Institution Affiliation: Liberty University (ID: 2446)
- Institution Email: djdavis16@liberty.edu
- Institution Unit: Communication
- Phone: 2072720982

- Curriculum Group: CITI Conflicts of Interest
- Course Learner Group: Conflicts of Interest
- Stage: Stage 1 - Stage 1

- Record ID: 39265885
- Completion Date: 02-Nov-2020
- Expiration Date: 01-Nov-2024
- Minimum Passing: 80
- Reported Score\*: 100

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
Financial Conflicts of Interest: Overview, Investigator Responsibilities, and COI Rules (COI-Basic) (ID: 15070)	02-Nov-2020	5/5 (100%)
Institutional Responsibilities as They Affect Investigators (COI-Basic) (ID: 15072)	02-Nov-2020	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: [www.citiprogram.org/verify/7kd8386b6b-0956-4750-92fc-28f4dc204773-39265885](http://www.citiprogram.org/verify/7kd8386b6b-0956-4750-92fc-28f4dc204773-39265885)

Collaborative Institutional Training Initiative (CITI Program)  
Email: [support@citiprogram.org](mailto:support@citiprogram.org)  
Phone: 888-529-5929  
Web: [www.citiprogram.org](http://www.citiprogram.org)

**COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)**  
COMPLETION REPORT - PART 2 OF 2  
COURSEWORK TRANSCRIPT\*\*

\*\* NOTE: Scores on this Transcript Report reflect the most current quiz completions, including quizzes on optional (supplemental) elements of the course. See list below for details. See separate Requirements Report for the reported scores at the time all requirements for the course were met.

- Name: Dudley Davis (ID: 9623079)
- Institution Affiliation: Liberty University (ID: 2446)
- Institution Email: djdavis16@liberty.edu
- Institution Unit: Communication
- Phone: 2072720982

- Curriculum Group: CITI Conflicts of Interest
- Course Learner Group: Conflicts of Interest
- Stage: Stage 1 - Stage 1

- Record ID: 39265885
- Report Date: 02-Nov-2020
- Current Score\*\*: 100

REQUIRED, ELECTIVE, AND SUPPLEMENTAL MODULES	MOST RECENT	SCORE
Financial Conflicts of Interest: Overview, Investigator Responsibilities, and COI Rules (COI-Basic) (ID: 15070)	02-Nov-2020	5/5 (100%)
Institutional Responsibilities as They Affect Investigators (COI-Basic) (ID: 15072)	02-Nov-2020	5/5 (100%)

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution identified above or have been a paid Independent Learner.

Verify at: [www.citiprogram.org/verify/7kd8386b6b-0956-4750-92fc-28f4dc204773-39265885](http://www.citiprogram.org/verify/7kd8386b6b-0956-4750-92fc-28f4dc204773-39265885)

Collaborative Institutional Training Initiative (CITI Program)  
Email: [support@citiprogram.org](mailto:support@citiprogram.org)  
Phone: 888-529-5929  
Web: <https://www.citiprogram.org>



**CITI PROGRAM**

Completion Date 06-May-22  
Expiration Date 05-May-2025  
Record ID 39265883

This is to certify that:

**Dudley Davis**

Has completed the following CITI Program course:

**Social & Behavioral Research - Basic/Refresher**  
(Curriculum Group)  
**Social & Behavioral Researchers**  
(Course Learner Group)  
**1 - Basic Course**  
(Stage)

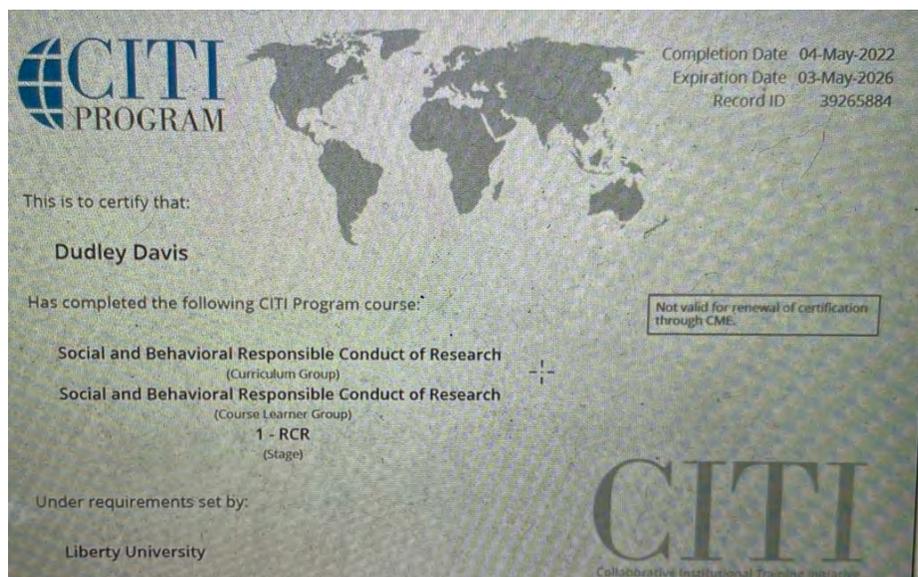
Under requirements set by:

**Liberty University**

**CITI**  
Collaborative Institutional Training Initiative

Not valid for renewal of certification through CME.

Verify at [www.citiprogram.org/verify/?wdb655735-52ea-4692-92f7-8cd067f1c4c9-39265883](http://www.citiprogram.org/verify/?wdb655735-52ea-4692-92f7-8cd067f1c4c9-39265883)



**CITI PROGRAM**

Completion Date 04-May-2022  
Expiration Date 03-May-2026  
Record ID 39265884

This is to certify that:

**Dudley Davis**

Has completed the following CITI Program course:

**Social and Behavioral Responsible Conduct of Research**  
(Curriculum Group)  
**Social and Behavioral Responsible Conduct of Research**  
(Course Learner Group)  
**1 - RCR**  
(Stage)

Under requirements set by:

**Liberty University**

**CITI**  
Collaborative Institutional Training Initiative

Not valid for renewal of certification through CME.